

FACTORS INFLUENCING GEN Z'S PURCHASE  
INTENTION TOWARDS GREEN COSMETICS IN  
MALAYSIA

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FACULTY OF BUSINESS AND FINANCE  
DEPARTMENT OF MARKETING

SEPTEMBER 2024

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BY

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

BACHELOR OF MARKETING (HONS)

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		<b>PAGE</b> : iv

Title of Final Work : FACTORS INFLUENCING GEN Z'S PURCHASE INTENTION TOWARDS GREEN COSMETICS IN MALAYSIA

Degree Awarded : BACHELOR OF MARKETING (HONS)

Faculty : FACULTY OF BUSINESS AND FINANCE

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## **ABSTRACT**

This study investigates the purchase intentions of Generation Z in Malaysia toward green cosmetics, employing the Theory of Planned behavior (TPB) as the primary framework. With environmental issues gaining global attention, the beauty industry has seen a significant shift toward eco-friendly products. However, the factors influencing this trend, particularly among younger consumers like Gen Z, remain underexplored. This research aims to bridge that gap by examining how attitude, subjective norms, perceived behavioral control, and an additional variable, environmental consciousness, affect the purchase intention of Generation Z towards green cosmetics. Data were collected through a survey of Malaysian Gen Z consumers, and the results were analyzed using SPSS. The findings reveal that subjective norms, specifically the influence of friends and family, play a crucial role in shaping Gen Z's intentions to purchase green cosmetics. Besides, the findings of this research indicate that the majority of Malaysian Gen Z exhibit positive attitudes toward purchasing green cosmetics and the results indicated that perceived behavioral control posits a positive relationship between Gen Z's purchase intention towards green cosmetics as Gen Z's intention to buy green cosmetics strengthens when they feel they have more control over their ability to access and obtain these products. Moreover, environmental consciousness emerged as a significant predictor, reinforcing the importance of personal values in driving sustainable consumption. The study's implications for marketers and policymakers are discussed, emphasizing the need for targeted strategies that leverage social influence and promote environmental values to effectively reach and engage Gen Z consumers. Besides, future research should consider exploring other potential variables such as skin type influence to gain a more comprehensive understanding of this emerging consumer segment. The five keywords of this study are Green Cosmetics, Generation, Theory of Planned Behavior (TPB), Environmental Consciousness and Purchase Intention. The subject area of this study is HF5410-5417.5 Marketing. Distribution of products.

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## LIST OF ABBREVIATIONS

TPB	Theory of Planned Behavior
IV	Independent Variable
DV	Dependent Variable
SPSS	Statistical Package for Social Science
QR	Quick Response
ATT	Attitude
SN	Subjective Norm
PBC	Perceived Behavioral Control
EC	Environmental Consciousness
PI	Purchase Intention
ANOVA	Analysis of Variance
SSE	Variance Within Groups
SSR	Variance Between Groups
SST	Total Sum of Squares



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Appendix A: Content of Questionnaire/Research Instrument

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## **CHAPTER 1: RESEARCH OVERVIEW**

### **1.0 Research Background**

Climate change occurs as a result of greenhouse gas emissions from activities such as burning fuel, cutting down trees, expanding cities, and industrial processes, leading to changes in solar energy levels, temperature, and rainfall (Mehta & Shah, 2012). According to Arnell et al. (2015), changes in water quantity and quality can also be impacted by climate change. Sustainability is defined by the UN World Commission as development that fulfils the present needs without compromising the ability of future generations to cater to their own needs (Poje et al., 2024). Ethical practices involve implementing ethical principles within organizational behaviour, spanning various dimensions of organizational conduct (Treviño et al., 1998). In this contemporary society, sustainability and ethical practices have emerged as significant concerns due to the challenges of climate change across numerous sectors. For instance, the rapid decline of air pollution, natural resources, greenhouse gas emissions, nuclear hazards, and other sustainability issues (Mac Kinnon et al., 2018). The urgency of climate change has underscored the need for sustainable and ethical practices across industries, including cosmetic manufacturing. The manufacturing of cosmetics was discovered in ancient Egypt at approximately 10,000 BC, where both males and females used scented oils and ointments for purifying their skin and concealing their body odours. while they utilised dyes and paints to add colour to their skin, bodies, and hair (McMullen & Dell'Acqua, 2023). Over time, the idea of beauty and fashion has evolved, but the appeal of beauty products remains strong, and the industry continues to create new products to satisfy consumer demands. The beauty industry is a vast market that is valued at roughly 528.6 billion USD and showing consistent growth where it is expected to reach 646.2 billion USD in 2024 (Statista, 2024). Asia Pacific and North America are more than 70% of the total market size (Statista, 2024). Personal style and self-expression are integral parts of our lives, with makeup serving as a popular

means of expressing ourselves (Smith et al., 2021). Recent statistics indicate a rising demand for green cosmetics worldwide, with projections suggesting further value growth of about 54.5 billion USD in the year 2027 experiencing a 5.2% yearly growth rate between 2018 and 2027 (Limbu & Ahamed, 2023). It is anticipated that the cosmetic industry will experience a consistent annual growth rate of 4.59% as measured by the Compound Annual Growth Rate (CAGR) between the years 2024 and 2028. However, the environmental impact of the cosmetic industry, the ingredients used in cosmetics, and the practices involved in manufacturing cannot be overlooked.

Green cosmetics are cosmetic products made from renewable raw materials using natural ingredients, avoiding chemicals, colouring additives, and other non-natural sources (Lestari & Roostika, 2022). Green cosmetics were also known as natural cosmetics and organic cosmetics in the cosmetic industry (Limbu et al., 2022). Moreover, green cosmetics also include the consumption and packaging of cosmetics. Scientific evidence shows that the demand for green cosmetics has significantly increased due to adverse effects of traditional cosmetics and uncertainties about other potential effects. Effects on human health can include allergic contact dermatitis from fragrances and preservatives, as well as toxicity from heavy metals in cosmetics (Borowska & Brzóška, 2015). Therefore, green cosmetics require control of the production, storage, and packaging of the product and must not harm the environment, and relevant certification. Additionally, there are limitations on the components utilised in manufacturing cosmetics, with certain regulations extending to production methods. Another common limitation is the prohibition of using genetically modified organisms (GMOs) and treating both the final product and raw materials with ionising radiation. Limiting ingredients, processes, and GMOs could be seen as a way to decrease potential harm to both human health and the environment.

Global Market Estimates (2024) published a new market research report stating that the global green cosmetics market will experience a 5.1% CAGR growth from 2024 to 2029. This report shows the worldwide trend of consumption in the green cosmetics market. Therefore, cosmetics companies promoting their cosmetics products are certified as green cosmetics that practise sustainability and ethical

practices to influence consumers to purchase their cosmetics. According to Bateh et al. (2014), 'Sustainability' has become a buzzword that organisations worldwide adopted as a product strategy to boost their sales and become a competitive advantage for their product. However, even though most countries have positive attitudes toward green cosmetics but still exceptions such as developing countries like Malaysia, where most manufacturers or producers don't practise sustainability and ethical practices on green cosmetics (Sapri et al., 2023). For example, excessive packaging waste, irresponsible utilization of natural resources, incorporation of harmful ingredients, and undisclosed child labour and animal testing in cosmetics for speedy results show that sustainability and ethical practices in Malaysia are inadequate. This study focuses on Gen Z consumers in Malaysia who are the major consumers in the cosmetics market (Sim, 2022). Generation Z is defined as people who were born between 1997 to 2012 and also called the first generation that experience a complete digital life while growing up (Eldridge, 2024). According to Andrew Chow (2017), in his book "Personal Branding 247" Generation Z highly emphasises the self-branding and significance of social media, and their willingness to spend more money to maintain their lifestyle and avoid falling behind their peers. Therefore, Generation Z's purchasing power on goods to maintain their lifestyle is strong and easily influenced by their peers and social media. Generation Z will use routine skin care and spend a lot on purchasing cosmetic products as this generation focuses on their appearance and self-branding (Kamardin & Sarif, 2021). This study significantly benefits green cosmetics manufacturers and marketers in understanding Generation Z's purchasing intention on green cosmetics in Malaysia.

## 1.1 Research Problem

The top contributor to the revenue of green cosmetics globally is China, where they are forecasted to generate a revenue of US\$3.10bn in the year 2024 and further predicted to undergo an annual growth rate of 10.73% throughout the year 2024 till 2028. As we further narrow down, **Malaysia is the country that contributes the least for the green cosmetics revenue and usage in the province of Southeast Asia** with the revenue generated thus far amounts to US\$51.48m with per person revenue that is US\$1.49 and anticipated to increase by 2.42% on a yearly basis

(Statista Malaysia, 2024). The proof for the issue offered is as follows with the sales revenue of other Asian countries, where the projected revenue for Thailand indicates a growth trajectory, anticipated to reach US\$101.40 million with an annual growth rate of 5.96% (Statista Thailand, 2024). Similarly, Vietnam is projected to see growth up to US\$59.86 million, with an annual growth rate of 3.84% (Statista Vietnam, 2024), while Indonesia's projection shows an increase of US\$63.8 million starting from 2024 (Statista Indonesia, 2024). Lastly, Singapore, despite its seemingly lower US\$19.44 million of revenue, its per person revenue is expected to experience growth of US\$3.21 (Statista Singapore, 2024). Notably, Singapore's revenue-to-population ratio surpasses that of Malaysia due to Singapore's smaller population of 6 million compared to Malaysia's 34 million (Data Commons, 2022).

One factor contributing to the modest revenue generation for green cosmetics in Malaysia may stem from the **(1) limited financial resources among Malaysians which results in negative perception towards green cosmetics due to its high price** (Khalid, 2022). This refers to the attitude towards the high price of green cosmetics and consumers' perception of the value they receive from a product with its cost. For instance, green beauty products are often considered as high-quality items because they contain eco-friendly, sustainable ingredients, and are produced ethically. However, if consumers perceive that the benefits of green cosmetics are not worth the higher price, they may have a negative perception towards purchasing these products. Consumer spending in Malaysia dropped to 241,464 MYR million in the fourth quarter of 2023, falling from 247,041 MYR million in the third quarter of the same year, attributed to inflation and the depreciation of the Malaysian ringgit (Trading Economics, 2024). Hence, the higher prices of green cosmetics could potentially limit their accessibility to a smaller portion of consumers (Amberg & Fogarassy, 2019). The increased cost of green cosmetics primarily because of the utilisation of laboratory-developed ingredients, often tailored to foster sustainability. Therefore, the existing premium pricing, coupled with inflationary pressures, is anticipated to escalate the cost of goods even more. As highlighted earlier, inflation erodes purchasing power, rendering consumers less capable of affording green cosmetics at their premium price point (“Purchasing Power: Analyzing”, 2024), alongside certain perceptions that such products may cause aggravation (Al Mamun et al., 2020).

Besides, the low sales of green cosmetics in Malaysia may also be attributed to the **(2) lack of usage of the green cosmetics among peers**. Peer influence is a notable factor in shaping consumer intentions and behaviour as even youngsters with strong self-confidence are prone to being influenced by their peers (Almeshal & Almawash, 2023). This could be attributed to the prevailing lack of awareness within a significant portion of the Asian community regarding the advantages offered by green cosmetics (Al Mamun et al., 2020). Additionally, the adoption of green cosmetics such as green skincare items among Malaysians has been limited due to a general disinterest in personal welfare (Al Mamun et al., 2018).

The subsequent focus of this research is the **(3) decreased availability of green cosmetics**. Online channels can potentially bridge the availability gap however that just further strengthens the point where acquiring green cosmetics is expensive (Kapoor, Singh & Misra, 2019). Plus, the availability can collectively help to reduce the price paid for acquiring green cosmetics therefore making it more desirable (Sinnappan et al., 2011). Availability is crucial because the potential purchasing intent of consumers may be hindered by the limited availability and scarcity of sustainable products, despite their expressed desire to make such purchases (Ogiemwonyi et al., 2019). In Malaysia, numerous environmentally friendly cosmetics brands are absent from frequently visited drugstores such as Watsons, Guardian, and Aeon Wellness. For example, Watsons offers limited choices of green cosmetics which includes their own private label and to top it off, most of the other green cosmetics that are offered in Watsons are only available in some branches.

Moving on, while Malaysians exhibit surface-level environmental consciousness and express a desire to avoid environmental pollution, there **(4) exists a gap in their consciousness regarding the multifaceted nature of environmental damage**. Beyond traditional sources of pollution like factory emissions, the acquisition and utilisation of unsustainable materials such as palm oil can also detrimentally impact the environment through intensive cultivation practices ("The Courage to Change", 2020). Moreover, previous studies investigating the environmental consciousness of Malaysians have primarily concentrated on four key aspects: water, air quality,

waste management, and climate change (Mei, Wai & Ahamad, 2016) and very few studies have focused on deforestation and land degradation. Past studies have shown that lack of environmental concern also contributes to the low adoption of green cosmetics such as green skincare (Al Mamun et al., 2018; Chin et al., 2018).

Green cosmetics sales are significant for Malaysia since it is a rising business globally that tackles the deteriorating circumstances of both our bodies and the environment (Global Market Estimates, 2024). As stated earlier, our government now projects the least amount of money from green cosmetics. We may improve sales and minimise Malaysian citizens' use of harmful cosmetics by creating a market in which green cosmetics are easily available and cheap within our purchasing capacities. Besides, creating an economy that gives importance towards the production and sales of green cosmetics also serves a great economic opportunity for fellow citizens where this market can lead to new job opportunities in sustainable agriculture and manufacturing, as well as increased product innovation.

## **1.2 Research Objectives**

RO1: To examine the effects of variables of the Theory of Planned Behaviour which are attitude, subjective norm, and perceived behavioural control on Gen Z's purchasing intention of green cosmetics in Malaysia.

RO2: To examine the influence of environmental consciousness on Gen Z's purchasing intention of green cosmetics in Malaysia.

## **1.3 Research Questions**

RQ1: How does attitude, subjective norm and perceived behavioural control affect the Gen Z's purchasing intention of green cosmetics in Malaysia?

RQ2: How does environmental consciousness affect the Gen Z's purchasing intention of green cosmetics in Malaysia?

## **1.4 Significance of Study**

This study holds considerable significance for multiple reasons. Research regarding the purchase intention of green cosmetics such as organic skincare is many in terms of cosmetics industry however it is relatively low in Malaysia compared to developed countries like Italy and Spain (Zollo et al., 2021). Moreover, though previous research has focused on the purchasing intentions of young consumers for green cosmetics, this study distinguishes itself by adopting a comprehensive approach that integrates an additional variable, the Environmental Consciousness (Ghazali et al., 2017; Limbu et al., 2022; Al Mamun et al., 2020). Given the limited existing literature on this aspect, this study contributes to enhancing the Theory of Planned behaviour and provides valuable insights for both future researchers and industry practitioners. Particularly for newcomers to the cosmetics industry, this study offers actionable insights into the prevailing market demand among the majority of the demographic, where the business owners who would like to venture into the green cosmetics market whether as product extension or product line can find this study beneficial. This study also seeks to assist established cosmetic brands in transitioning from conventional cosmetics manufacturing to green cosmetics by offering insights and raising awareness about the benefits and potential market share associated with such a shift. In conclusion, this study not only addresses a significant gap in the literature regarding Generation Z's buying decisions of green cosmetics but also offers actionable insights for both newcomers and established brands in the cosmetics industry, aiming to foster a transition towards more sustainable and environmentally friendly practices. As yet, Malaysia has made significant strides in sustainability, particularly in creating sustainable cities with the country advancing towards the United Nations Sustainable Development Goals (SDG), with a SDG Index score of 70.9% according to the Sustainable Development Report 2021 (MGTC, 2023). Efforts include initiatives like low- carbon cities, green building standards, and sustainable urban development (MGTC, 2023) but challenges remain in areas waste management, reducing plastic



use and as stated in the statistics in 1.1, the limited adoption of green cosmetics which directly contributes towards plastic and environmental footprint reduction (Hernandez, 2024).

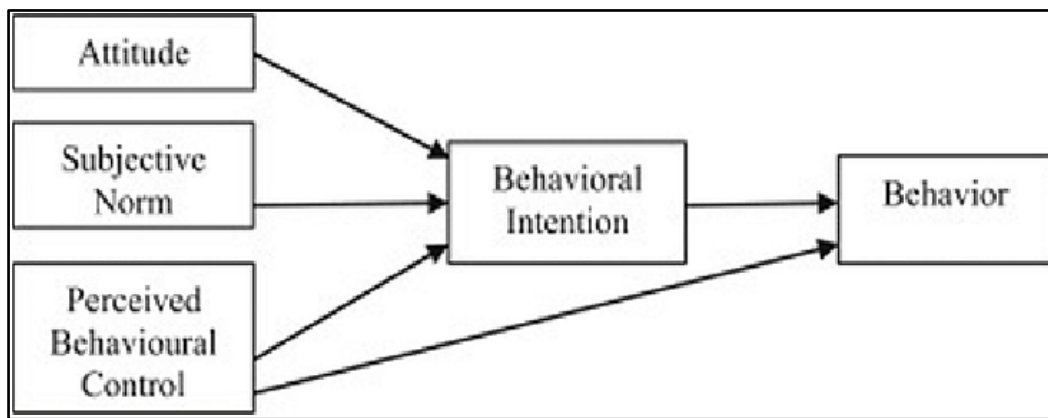
## CHAPTER 2: LITERATURE REVIEW

### 2.0 Underlying Theory

The TPB framework is one of the most commonly used models for studying individual behaviour. Arising from the Theory of Reasoned Action (TRA) created by Icek Ajzen in 1980, in collaboration with Martin Fishbein, who established TRA in 1975. The transition from TRA to TPB involved the incorporation of perceived behavioural control, as proposed by Ajzen in 1991 and emphasised by Shaw in 2015. According to Ajzen in 2002, human behaviour is influenced by attitudes, subjective norms, and perceived behavioural control, all playing a role in shaping an individual's planned actions. Behavioural beliefs, normative beliefs, and control beliefs collectively shape an individual's attitude, perceived social pressure, and perception of behavioural control (Ajzen, 2002). These variables all contribute to the formation of a behavioural intention. Stronger intents to engage in a behaviour are often associated with more positive attitudes, stronger subjective standards, and increased perceived control (Ajzen, 2002). People are expected to follow through on their objectives when the chance presents itself, provided they have adequate control over their behaviour (Ajzen, 2002). As a result, it is believed that purpose precedes behaviour directly (Ajzen, 2002). Therefore, in this study, attitude, subjective norm, and perceived behavioural control as the main constructs of the TPB are examined to find out the purchase intention of Gen Z's of green cosmetics in Malaysia alongside with the additional variables environmental consciousness and health perspective.

The first variable of TPB is **attitude** which is the extent to which a person has favourable or unfavourable feelings towards a particular behaviour (Ajzen, 1991). It involves evaluating the consequences of performing the behaviour (Lamorte, 2022). The second variable is **subjective norm** which describes our perception of

whether the majority of people agree or disagree with the behaviour. It associates a person's confidence about whether peers and people that are important to them think the person should be involved in the behaviour (Lamorte, 2022). The last variable in the framework is **perceived behavioural control** where Ajzen (1986) presented the idea of 'perceived behavioural control' as part of his theory of planned behaviour, highlighting the significance of influencing both our intention to act and our subsequent behaviour. It also shares similarities with self-efficacy, representing our belief in our ability to manage our actions. Figure 2.1 illustrates the framework of Theory of Planned Behaviour.



*Figure 2.1 Framework of Theory of Planned Behaviour*

The Theory of Planned behaviour does have some limitations to it where it assumes individuals possess the necessary opportunities and resources to execute a desired behaviour, irrespective of their intention (Lamorte, 2022). Furthermore, it operates under the assumption of a linear decision-making process, neglecting the possibility of behavioural changes over time. People's attitudes, norms and perceived control may fluctuate depending on the context in which the behaviour occurs (Ajzen, 2011). Besides, the theory overlooks additional variables influencing behavioural intention (Ajzen, 2022). However, the model is flexible to let future researchers include their own variables to tailor the model to better fit their scope of research.

## 2.1 Review of Variable

### **Dependent Variable: Purchase Intention**

Dodd and Supa (2011) define purchase intention as the likelihood of customers buying a product or service. Purchase intention refers to the behavioural inclination towards buying, including intentions for repurchasing, spreading word-of-mouth, displaying loyalty, exhibiting loyal behaviour, and sensitivity to pricing (Zeithaml et al., 1996). Purchase intention denotes the inclination to purchase a particular brand, typically influenced by the alignment of buying motivations with the brand's attributes or characteristics that are evaluable (Belch, 2004). According to Zolait (2014), understanding consumers' purchase intentions is essential for anticipating their behaviour. Consumers who engage with and evaluate content are more likely to demonstrate resonance behaviour, which eventually leads to product purchases and repurchases. Plus, purchase intention can be categorised as a behaviour of consumers where they buy specific products for specific situations and/or conditions (Shah et al., 2012).

### **Independent Variable 1: Attitude**

According to Ajen (1991), Attitude refers to an individual's overall evaluation or appraisal of a particular behaviour. Attitudes refer to enduring feelings, thoughts, and inclinations toward specific aspects of one's environment (Pardana et al., 2019). It reflects the extent to which someone has a favourable or unfavourable opinion towards performing that behaviour. It entails a consideration of the outcomes of performing the behaviour (Lamorte, 2022). Attitudes influence an individual's intentions and subsequent actions. Attitude also beliefs about the consequences or outcomes associated with performing the behaviour. They represent evaluative biases towards objects or subjects, influencing how individuals interact with them. This aligns with the idea that attitudes entail a favourable evaluation of something or someone, evident in an individual's beliefs, feelings, or actions (Pardana et al., 2019). Attitude is the individual's assessment of the expected results linked to the behaviour (Pardana et al., 2019). Individuals assign values whether positive or negative to these outcomes based on their preferences and priorities (Pardana et al.,

2019). Attitude is how a person assesses a behaviour by considering their beliefs about the outcomes and their thoughts on these outcomes (Lamorte, 2022).

### **Independent Variable 2: Subjective Norm**

Subjective norms are related to the perceived social pressures or expectations an individual has from other people, especially people who have close relationships such as family, friends, peers, or society regarding whether they should or should not engage in a particular behaviour. It shapes an individual's normative belief and motivation to comply. Motivation to comply reflects an individual's assessment of the importance of gaining approval from their important figures (Ajzen, 1991). Subjective norms capture the influence of social factors on an individual's intentions and behaviours. Subjective norms consist of normative beliefs and motivation to comply (Ajzen, 1991). According to Deutsch and Gerard (1955), normative beliefs are individuals or groups that think one should or should not perform a behaviour. For example, some people might think that their friends expect them to use green cosmetics and save the environment. While the motivation to comply is the individual's motivation to adhere to these perceived norms (Ajzen, 1991). It reflects the importance that the individual places on meeting the expectations of others. For instance, someone might feel a strong motivation to comply with their family's expectations to continue buying green cosmetics the same as their family. Unlike objective norms, subjective norms are determined by an individual's impressions and perceptions of the beliefs, expectations, and social pressure they perceive from others (Latimer-Cheung & Ginis, 2005).

### **Independent Variable 3: Perceived behavioural control**

Kiriakidis (2016) state that perceived behavioural control determines the ease or difficulty of participating in a particular behaviour based on individual experiences, resources, and abilities, influencing perception across various situations and behaviours. Different situations and actions can cause variations in how people perceive their ability to control their behaviour, leading to differing perceptions depending on the context (Lamorte, 2022). The performance of a behaviour is influenced by having enough resources and the capability to surpass the obstacles

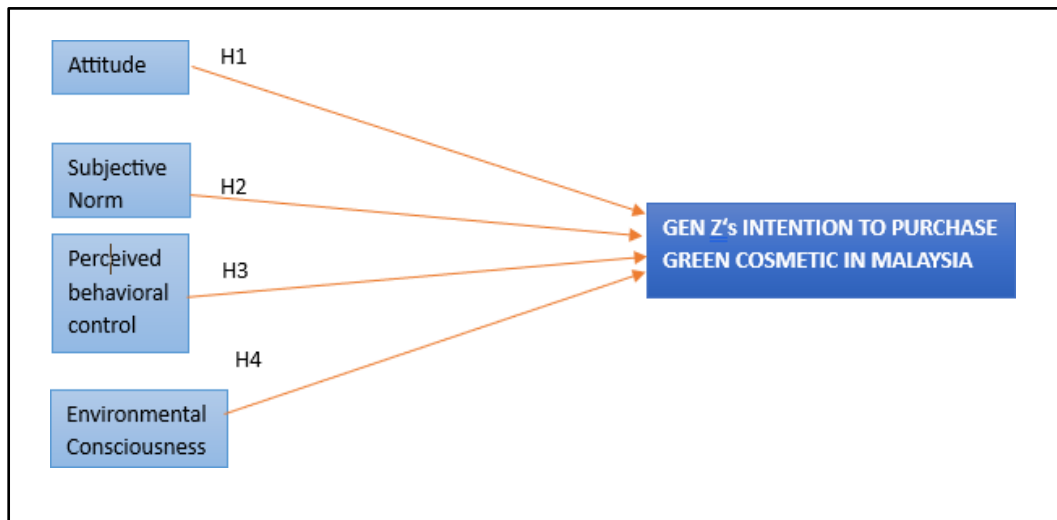
of that behaviour (Ajzen & Madden, 1986). When a person identifies substantial resources and very few barriers, their perceived behavioural control increases which then strengthens their intention to engage in that behaviour (Ajzen & Madden, 1986). However, while self-efficacy relates to our assurance in completing tasks despite challenges, perceived behavioural control focuses more on our perception of the ease or difficulty of a behaviour (Bandura, 1977). Despite many health behaviour models including perceived behavioural control as a crucial factor in intention and behaviour, some describe it as 'self-efficacy' (Ajzen & Madden, 1986). Regardless of terminology, the fundamental notion remains the same: the confidence in being able to regulate behaviour significantly impacts how it is carried out.

#### **Independent Variable 4: Environmental Consciousness**

Environmental consciousness relates to a person's understanding of environmental issues and the significance of eco-friendly behaviours (Kim & Lee, 2023). In addition, environmentally aware consumers understand the impact of their product consumption on the environment. This awareness derives from a person's belief, mindset, and concern for the environment, which could impact their buying decision (Zhang & Dong, 2020). Individuals who are environmentally conscious are aware of the harmful chemicals that may be present in cosmetic products and opt for natural and organic alternatives in order to minimise potential harm to the environment (Amberg & Fogarassy, 2019). They also suggest that cutting out products that are made with synthetic chemicals is important to reduce environmental issues.

## **2.2 Conceptual Framework**

With the reference of the theoretical framework of TPB and past studies related to involvement variable, therefore the conceptual model has been constructed (see figure 2.3)



*Figure 2.2 The Conceptual Model*

The definition of each variable has already been stated in the part of 2.2. This study aims to investigate the direct connection between each TPB construct and involvement factors with Gen Z's purchase intention of green cosmetics in Malaysia.

## **2.3 Development of Hypotheses**

### **2.3.1 Attitude and Gen Z's Intention to Purchase Green Cosmetics in Malaysia**

Prior research has shown that a positive attitude among consumers could lead to Positive intent to purchase and eventual actual purchase behaviour (Khan et al., 2022). The attitude of the consumer towards green cosmetics influences the customers purchase intention, (Lin et al., 2018). According to Ajen (1991), attitude reflects the person's opinion whether is positive or negative towards doing that behaviour. The construct of attitude varies from one human being to another, and each person has a unique view toward green cosmetics. Some research shows that people have a positive mindset on purchasing green products or eco-friendly

products due to their awareness of natural damage towards the world (Lin et al., 2018).

In contrast, other research found that consumers show a neutral attitude towards purchasing green cosmetics. Research shows that consumer attitudes on purchasing green cosmetics are neutral due to lack of green awareness, lack of resources and increased price (Lin et al., 2018). In this study, we hypothesise that the attitude of Gen Z towards green cosmetics will significantly influence their purchasing intentions. Hence, we suggest the following hypothesis:

*H1: Attitude is positively related with Gen Z's intention to purchase green cosmetics in Malaysia*

### **2.3.2 Subjective Norm and Gen Z's Intention to Purchase Green Cosmetics in Malaysia**

Zubaidi (2020) explains that subjective norms involve the influence of significant individuals like family, friends, and society on determining appropriate behaviour. Research shows that subjective norms have a positive relationship in influencing people's purchase intention in green cosmetics (Eze & Ndubisi, 2013). The consumer will change their purchase intention toward a product when people around them have positive or negative comments about a product, (Archak et al., 2010).

Consumers are sensitive to peer pressure and develop behaviours that meet their peers' expectations, (Gillani, 2012). They would ask for advice from their friends during their purchase, (Hampert, 2021). Green cosmetics sales among peers in Malaysia are lacking. This might cause a negative domino effect among peers, especially Gen Z consumers who are deeply influenced by their peers and follow their peers not to purchase green cosmetics. In this research, we propose that the subjective norm of Gen Z in Malaysia plays a role in influencing their intention to buy green cosmetics.



*H2: Subjective norm is positively related with Gen Z's intention to purchase green cosmetics in Malaysia*

### **2.3.3 Perceived behavioural Control and Gen Z's Intention to Purchase Green Cosmetics in Malaysia**

Perceived behavioural control refers to an individual's belief they can regulate their actions or behaviours (Kang et al., 2006). Furthermore, Ajzen (1991) mentions that perceived behavioural control directly influences intention. Studies indicate that the level of perceived behavioural control is crucial in influencing buying intentions for eco-friendly items such as organic personal care products (Ghazali et al., 2017; Kim & Chung, 2011), green hotels (Han et al., 2010; Chen & Tung, 2014), organic food (Tarkiainen & Sundqvist, 2005), and green products in general (Lin et al., 2018). According to Shimul et al., (2021), the effect that perceived behavioural control has towards purchasing intentions yields varied findings. According to Joshi & Rahman (2015), some research suggests that perceived behavioural control plays a key role in consumers' decision to buy eco-friendly products, while another study disagrees by stating there is no strong correlation between the intention to purchase green products and perceived behavioural control. These observations are frequently attributed to variations in cultures and the accessibility of green cosmetics products. Consequently, drawing from the theoretical assumptions and empirical evidence, the following hypothesis is proposed:

*H3: Perceived behavioural control is positively related with Gen Z's intention to purchase green cosmetics in Malaysia*

### **2.3.4 Environmental Consciousness and Gen Z's Intention to Purchase Green Cosmetics in Malaysia**

Environmental Consciousness referring people's propensity to act in sustainability practices or knowledge towards the environment, (Kim & Lee, 2023). Environmental consciousness is one of the main components that impact the intent to purchase environmentally friendly cosmetics (Zou & Chan, 2019). According to Wojciechowska-Solis and Barska (2021), research also shows that consumers' environmental consciousness level will change the consumers' purchasing intention toward green products. Consumers with high environmental consciousness will show consideration by avoiding buying products that harm the environment (Pudaruth et al., 2015).

However, research shows a lack of environmental consciousness of the multifaceted nature of environmental damage among Malaysians. The lack of environmental consciousness results in low acceptance of green cosmetics (Al Mamun et al., 2018). This shows that when consumers lack environmental consciousness the purchase intention of green cosmetics declines. This also aligns with the proposed hypothesis in this study: environmental consciousness positively influences Gen Z's intention to purchase green cosmetics in Malaysia.

*H4: Environmental consciousness is positively related with Gen Z's intention to purchase green cosmetics in Malaysia*

## **CHAPTER 3: METHODOLOGY**

### **3.1 Research Design**

A causal research design was employed to test the causal association between the independent variables (IV) and dependent variables (DV). According to Erickson, G. Scott (2017), a causal research design is conducted with quantitative data to test the hypothesis. This research seeks to investigate how Attitude, Perceived behavioural Control, Subjective Norms, and Environmental Consciousness impact Gen Z's intention to buy green cosmetics in Malaysia.

### **3.2 Sampling Design**

#### **3.2.1 Target Population**

The group that was selected to make inferences about and draw conclusions for are Gen Z consumers in Malaysia due to the demographic being the highest percentage among cosmetics users in the market. This generation is known to be the pioneer of digital life and is known to give significant importance to social media, and self-branding, and keep adapting to the changes to avoid the anxiety of exclusion (Eldridge, 2024; Chow, 2017). Plus, the young generation is the future decision-makers. Gen Zs are targeted because the generation possesses a high tolerance and acceptance rate towards diverse topics and is said to be a group that is focused on routine skincare and is willing to spend money to purchase cosmetic products as the generation stresses their appearance (Williams et al., 2010). For such reasons, the

study will be beneficial for green cosmetics manufacturers and marketers by shedding light on Gen Z's inclination to purchase green cosmetics in Malaysia. According to Chan (2001), youngsters below 18 years old are less likely to comprehend green purchase issues. Hence, this research focused on individuals from Generation Z who are between the ages of 18 and 27 in Malaysia.

### **3.2.2 Sampling Frame**

In this study, the sampling frame is not accessible due to the sheer size of Gen Z in Malaysia is too large. Due to the infeasibility of gathering information on every Gen Z respondent in Malaysia for this study, non-probability sampling is utilised to collect data samples.

### **3.2.3 Sampling Technique**

This study adopts the non-probability sampling approach where a judgemental and snowball sampling technique is executed as the target respondents are selected based on specific criteria that are needed by the researchers to conduct the study instead of employing random selection methods, (Reddy & Ramasamy, 2017). The questionnaire utilised a screening question that necessitates them to specify their age before proceeding to the actual questionnaire which is: Are you aged between 18 to 27 years old? If the respondent answers Yes, the respondent can proceed to answer the remaining questions as they are part of the target population of this study. In contrast, for anyone who does not fit these criteria the Google Form will redirect them to the exit page and filter out the respondents that were not suitable for this study. Since snowball sampling was utilised in this study, respondents can share the questionnaire with family and friends for completion.

### 3.2.4 Sample Size

The study's sample size is established at 320 participants using Cochran's Formula. According to Mandeville and Roscoe (1971), the sample size of the research study is between 30 and 500 participants. The approximate population of Gen Z in Malaysia is around 10,002,100 people which is 29% of Malaysia's total population (Worldometer, 2024). This study used Cochran's Formula to calculate the sample size. The alpha level used in most research sample sizes is 0.05 (Ary et. al., 1996). In this formula, the alpha level is used to utilise the t-value which is 1.96 for an alpha level of 0.05. A 0.05 margin of error is acceptable in a research study (Krejcie & Morgan, 1970). The estimated population proportion is 0.29 calculated by the population of Gen Z in Malaysia which is 10,002,100 divided by the population of Malaysia in 2024 which is 34490000. After using Cochran's Formula for calculations, the sample size for this study is determined to be 317 respondents, which is then rounded up to 320 respondents. In this research project, a total of 320 participants will be selected to respond to the 25 distributed survey questions.

*Cochran's Formula*

$$n = Z^2 p(1 - p) / e^2$$

n = Sample Size

Z = Z-score for a confidence level of 95% = 1.96.

p = Estimated population proportion = 0.29

E = Margin of error = 0.05

## 3.3 Data Collection Method

### 3.3.1 Primary Data

Questionnaires are the main method of data collection employed in this research.

The data gathered specifically for a research problem using appropriate procedures

is referred to as primary data collection (Hox & Boeije, 2005). According to Mathers, Fox, and Hunn (2007), questionnaires are efficient and cheaper to collect data especially when the sample size is large. Questionnaires are data collection tools that let the respondents answer predetermined questions prepared by the researchers (Roopa & Rani, 2012). The type of questionnaire this study uses is self-administered which means the respondents complete the questionnaire without direct interaction with the researcher (Mathers et al., 2007). This method can ensure that the respondents' answers are not influenced by the presence of the researcher and enhance the reliability of the data. The questionnaire data collection method also provides flexibility to the respondents; respondents can decide to complete the questionnaire at anytime and anywhere (Mathers et al., 2007).

### **3.4 Research Instrument**

The questionnaire of this study uses the Likert Scale to collect respondents' data. The Likert scale range is 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree. Based on the research by Adelson and McCoach (2010), the 5-point Likert Scale shows a higher reliability than the 4-point Likert Scale when measuring the mathematical subscale. The 5-point Likert Scale also excels the 4-point Likert scale based on psychometric properties (Adelson & McCoach, 2010). This study research instrument is a Google Form link. Using the Google Form link is convenient for the respondents to fill up the form by scanning the Google Form QR code directly links them to the Google Form effortlessly. In addition, the Google Form link can be distributed more efficiently through social media platforms or emails. The independent variables (IV) of this study are the 3 components of the Theory of Planned behaviour (TPB): Attitude, Perceived behavioural Control, and Subjective Norms with an additional variable: Environmental Consciousness. The dependent variable (DV) is Gen Z's Intention to Purchase Green Cosmetics in Malaysia.

The questionnaire that will be distributed to Gen Zs will comprise components that measure how the three variables of TPB and the additional two variables affect the

purchasing intention of Gen Z towards green cosmetics in Malaysia. The questionnaire is divided into five respective parts, each representing each variable that is being studied. Each of these parts will contain four questions. Table 1 displays the questions for each of the variables in this study.

Table 3.1:

*Questionnaire*

Construct	Item	Adapted From
Purchase Intention	I have the intention to purchase green cosmetics in the future	Tewari et al., 2022
	I think I will get green cosmetics after this	Tewari et al., 2022
	I wish to purchase green cosmetics in the near future	Tewari et al., 2022
	The chances that I will buy green cosmetics is high	Tewari et al., 2022
	If green cosmetics are on the market, I will purchase it.	Tewari et al., 2022
Attitude	I'm fond of the idea of using green cosmetics	Paul et al., 2016
	I believe it is a wise choice to purchase green cosmetics (modified)	Tewari et al., 2022
	Buying green cosmetics is pleasant (modified)	Tewari et al., 2022
	I think adopting green cosmetics is valuable	Tewari et al., 2022
	Buying green cosmetics is righteous	Tewari et al., 2022
Subjective Norm	My family members believe that I should purchase green cosmetics	Yazdanpanah & Forouzani , 2015
	The majority of individuals I value would purchase green cosmetics	Yazdanpanah & Forouzani , 2015

	My intimate circle, whose viewpoints on cosmetics products I highly value, believe I should purchase green cosmetics	Yazdanpanah & Forouzani , 2015
	My friends' opinions on green cosmetics are significant to me that I have to buy green cosmetics.	Yazdanpanah & Forouzani , 2015
	People will view me positively if I buy green cosmetics	Kamalanon et al., 2022
Perceived behavioural	I have resources to purchase green products	Paul et al., 2016
Control	I predict there will be many occasions where I can purchase green cosmetics	Paul et al., 2016
	If it were solely my decision, I'd definitely choose green cosmetics	Paul et al., 2016
	I see myself as capable of purchasing green products in future.	Paul et al., 2016
	Overall, green cosmetics are available in stores I frequently shop at.	Paul et al., 2016
Environmental Consciousness	I frequently engage in conversations about environmental issues with my friends.	Paul et al., 2016
	I am concerned about the harm being done to the wildlife caused by cosmetic manufacturing.	Paul et al., 2016
	I have significant concern about environmental issues	Kim & Seock, 2009
	I prefer to purchase products that are made in environmentally responsible ways.	Kim & Seock, 2009
	I strive to make environmentally conscious purchases.	Kim & Seock, 2009

### 3.4.1 Pilot Study

Pilot study, also referred to as pretest and feasibility test, are carried out to evaluate to which extent the results are reliable and valid before commencing the actual



extensive research. The pilot study is essential before conducting the fieldwork to

evaluate research protocols, data collection tools, method of recruiting respondents and various research methods in conducting a larger study (Hassan, Schattner & Mazza, 2006). It is also essential to identify any deficiencies in the questionnaire in terms of structure, grammar and the overall content and encourage necessary amendments. Plus, the monetary requirements and research design improvements are initiated during this stage (Simkus, 2023). For this pilot study, the developed questionnaire shall be distributed to 32 respondents which is 10% of the sample size as proposed in past research (Hertzog, 2008). The distribution of the questionnaires for the pilot study shall be distributed via Google Form as it is entirely free. The internal consistency of each instrument shall be assessed with all the valid responses (Chua, 2012).

### **3.4.2 Actual Study (Fieldwork)**

For the fieldwork or the actual study, the amended questionnaire will be distributed to the calculated sample size which is 320 respondents to gather data and test on the sample. The survey instrument that this study will be adopting is Google Form, where the measurement items for each variable shall be displayed. As for the distribution of questionnaires, QR code (Appendix C) and URL link will be utilised which redirects the person scanning or clicking it respectively to the Google Form. The link and the QR Code will be shared extensively across various social media platforms and messaging apps such as WhatsApp, Gmail, WeChat and Telegram to reach a wider audience. The additional benefit Google Forms provides is its inbuilt statistic calculator which is readily available for the owner of the form. Researchers can benefit from this feature by using the displayed statistics in the data analysis process. Also, the utilisation of Google Form is due to its free of charge nature and convenience compared to traditional survey methods.

### **3.5 Data Analysis Tool**

The data analysis tool that this study shall utilise is Excel Spreadsheet which is a comprehensive data management tool that enables the importing, descriptive analysis and visualisation of the data obtained from the respondents. For further analysis, SPSS latest version will be used to perform the study's more complex statistical data analysis.

### **3.6 Proposed Data Analysis**

Data analysis is the process of transforming data that is obtained into meaningful insights by employing statistical and logical strategies (Alem, 2020). This process may involve calculating differences between variables and the frequencies of the variables (Kaliyadan & Kulkarni, 2019). Typically, a quantitative approach involves seeking evidence to either confirm or refute hypotheses formulated during earlier stages of the research process (Barroga & Matanguihan, 2022).

#### **3.6.1 Descriptive Analysis**

Descriptive analysis involves statistically summarising, combining, and presenting the constructs of interest or the association between these constructs (Loeb et al., 2017). It is a crucial step in summarising and describing the fundamental characteristics of datasets. Oftentimes, this process provides researchers with details about the four primary descriptive analysis which are distribution of frequencies, value of central tendency, dispersion and measures of position (Hayes, 2024). This analysis helps researchers to gain a comprehensive understanding towards their datasets. Since this study uses Likert scale to collect the data from the respondents, means cannot be utilised as the measure of central tendency as it cannot be obtained from Likert scale instead, we measure the frequencies of each component in the scale range (Sauro, 2016). The four steps that covers the descriptive analysis process for this research are data collection, data preparation which comprises

several methods that ensures the dataset is consistent, clean and prepared for further analysis, conducting frequency distribution analysis and lastly displaying the frequencies in various charts with summaries that describe the frequency percentage.

### 3.6.2 Reliability Test

Reliability is the extent to which a measurement of a phenomenon produces reliable and consistent outcomes (Carmines & Zeller, 1979). Based on Moser and Kalton (2017), the test is reliable when the result is the same with repeat measurements and constant conditions. According to Taber (2018), Cronbach's Alpha is highly used in published journals by researchers to measure the reliability standards of the studies. George and Mallery (2003) show the rule of thumbs to calculate Cronbach's Alpha value for the Likert scale which is presented in Table 2. The Cronbach's Alpha score falls within the range of 0 to 1. The closer the Cronbach's Alpha value is to 1, the higher the consistency of the item, with an acceptable range of 0.7 to 0.9 (George & Mallery, 2003).

Table 3.2:

*Cronbach's Alpha*

Cronbach's Alpha	Reliability / Consistency Level
$\alpha \geq 0.9$	Excellent
$0.8 \leq \alpha < 0.9$	Good
$0.7 \leq \alpha < 0.8$	Acceptable
$0.6 \leq \alpha < 0.7$	Questionable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

*Note.* From George and Mallery (2003). *SPSS for Windows Step by Step: A Simple Guide and Reference.* (4th ed.). Allyn & Bacon.

### 3.6.3 Inferential Analysis

#### Pearson's Correlation Analysis

According to Schober et al. (2018), the change of value in one variable corresponds to the change of value from another variable whether positive or negative is considered as correlated data. The Pearson correlation coefficient is utilised for examining the association between two variables (Schober et al., 2018). The Pearson correlation coefficient ranges from -1 to +1, with 0 indicating no linear relationship between two variables. As the relationship strengthens, the approaches will converge towards a straight line (Schober et al., 2018). A correlation coefficient greater than 0.40 is considered within the acceptable range. The stronger the relationship between two variables, the closer the correlation coefficient reaches 1.00 (Schober et al., 2018). Refer to the table below:

Table 3.3:

#### *Correlation Coefficient*

<b>Correlation Coefficient</b>	<b>Interpretation</b>
0.00 – 0.10	Negligible correlation
0.10 – 0.39	Weak correlation
0.40 – 0.69	Moderate correlation
0.70 – 0.89	Strong correlation
0.90 – 1.00	Very Strong correlation

*Note.* From Schober et al. (2018). Correlation coefficients: Appropriate use and interpretation. *Anesthesia & Analgesia*, 126(5), 1763–1768.

#### Multiple Linear Regression Analysis

Regression analysis used to analyse the relationship between two variables and make predictions based on result relation (Uyanık & Güler, 2013). Multiple linear regression (MLR) analyses all the variables including dependent variable and other independent variables in one model (Marill, 2004). The multiple linear regression

is based on the simple linear regression to measure the value of the dependent variable with other independent variables values using the formula (Uyanik & Güler, 2013). The multiple linear regression formula for this study is stated below:

$$Y = A + B_1X + B_2X_2 + \dots + B_k X_k$$

Y = Dependent variable (DV)

A = Constant

$B_i$  = Parameter

$X_i$  = Independent variable (IV)

In this study, the Y in the formula which is the dependent variable is Gen Z's Intention to Purchase Green Cosmetics in Malaysia. In the equation, A represents the intercept of the dependent variable's value when all independent variables are equal to zero.  $B_i$  in this formula represent the parameters which indicates the impact of each independent variable to the dependent variable.  $X_i$  in this formula represents the independent variable which is: X1 represent Attitude; X2 represent Subjective Norms; X3 represent Perceived Behavioural Control and X4 represent Environmental Consciousness. Below is the relabelled formula according to this study:

$$PI = A + B_1(ATT) + B_2(SN) + B_3(PBC) + B_4(EC)$$

PI = Gen Z's Intention to Purchase Green Cosmetics in Malaysia

A = Constant

$B_i$  = Parameter

ATT= Attitude

SN = Subjective Norms

PBC = Perceived behavioural Control

EC = Environmental Consciousness

This research also used the analysis of variance (ANOVA) to establish the correlation between various independent variables and a dependent variable. ANOVA is mostly used to test and evaluate hypotheses about group means to identify if the differences between groups are higher than the differences within each group (Sawyer, 2009). ANOVA examines the total variance and breaks it

down into two components. The F-statistic is determined by dividing the variance within groups (SSE) by the variance between groups (SSR) (Jones et al., 2023). It is used to analyse whether the means between two groups are significantly different. (Park, 2009).

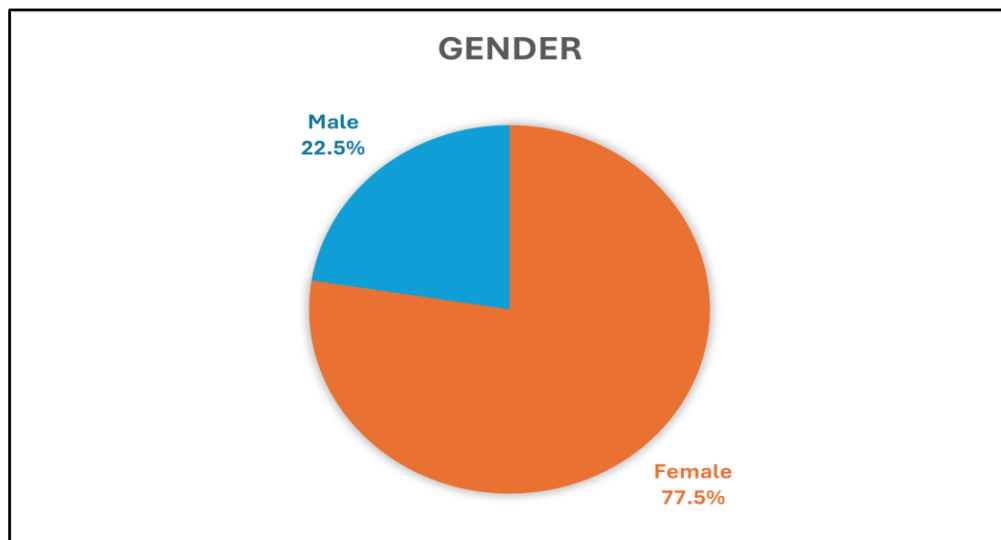
ANOVA involves calculating three important components. The total sum of squares (SST) measures total data differences, the between-group sum of squares (SSR) shows differences between group means, and the within-group sum of squares (SSE) captures differences within each group (Snedecor & Cochran, 1989). The F-ratio indicates a significant disparity in at least one group's average compared to the others, necessitating further post-hoc examination to pinpoint specific differences (Jones et al., 2023).

## CHAPTER 4: DATA ANALYSIS

### 4.1 Introduction

Chapter 4 will involve the examination and discussion of the data gathered from the questionnaire survey. This survey gathered a grand total of 320 valid responses which is sufficient for representing the population of our target respondents, Gen Z. Any invalid responses will be disregarded in the data analysis. SPSS version 29.0.2.0 (20) is used as the data analysis tool for this research.

### 4.2 Descriptive Analysis



*Figure 4.1 Respondent's Gender*

Figure 4.1 shows the gender of the respondents who participated in the questionnaire. The number of female respondents is 77% (248 respondents). The male respondents accounted for 22.5% (72 respondents). The female proportion is



significantly more than male respondents as female consumers are more interested in green cosmetics than male consumers (Dlamini & Mahowa, 2024).

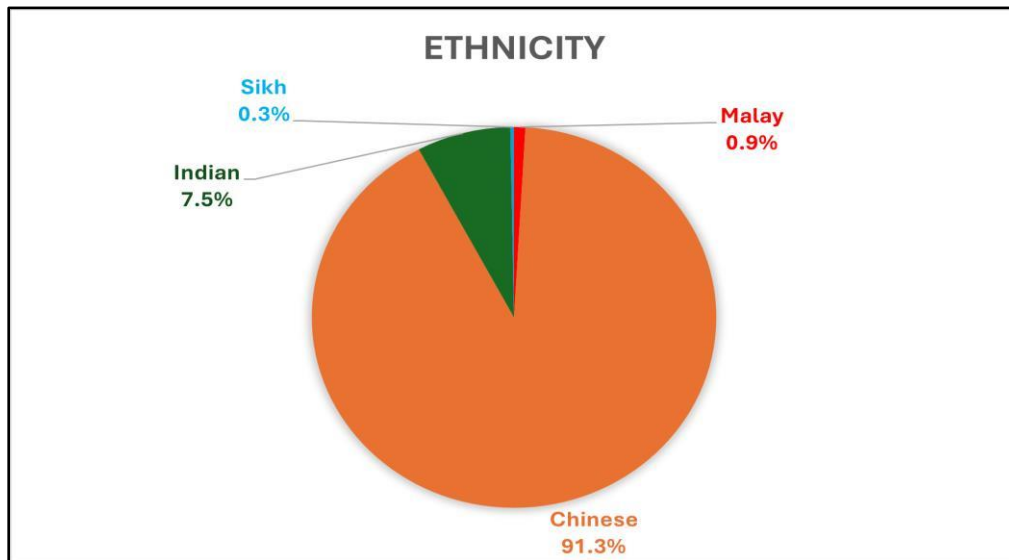


Figure 4.2 Respondent's Ethnicity

According to Figure 4.2, Chinese respondents are the most, which is 91.3% (292 respondents), followed by Indians at 7.5% (24 respondents), Malays at 0.9% (3 respondents), and Sikh at 0.3% (1 respondent). The notable disparity between the percentage of Malays respondents and Chinese respondents may be attributed to the limited choices of Halal certified green cosmetics options readily available in stores in Malaysia.

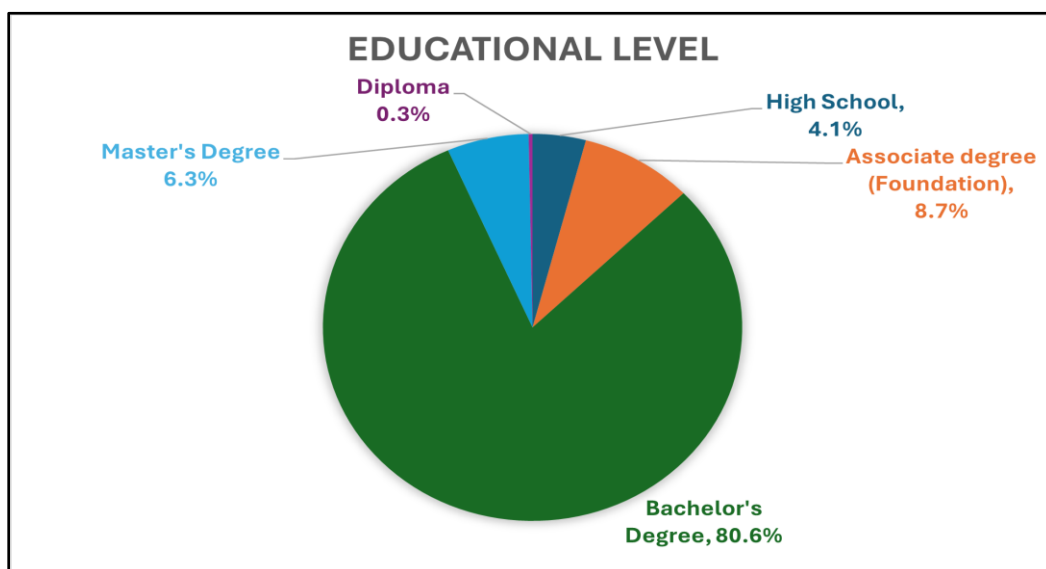
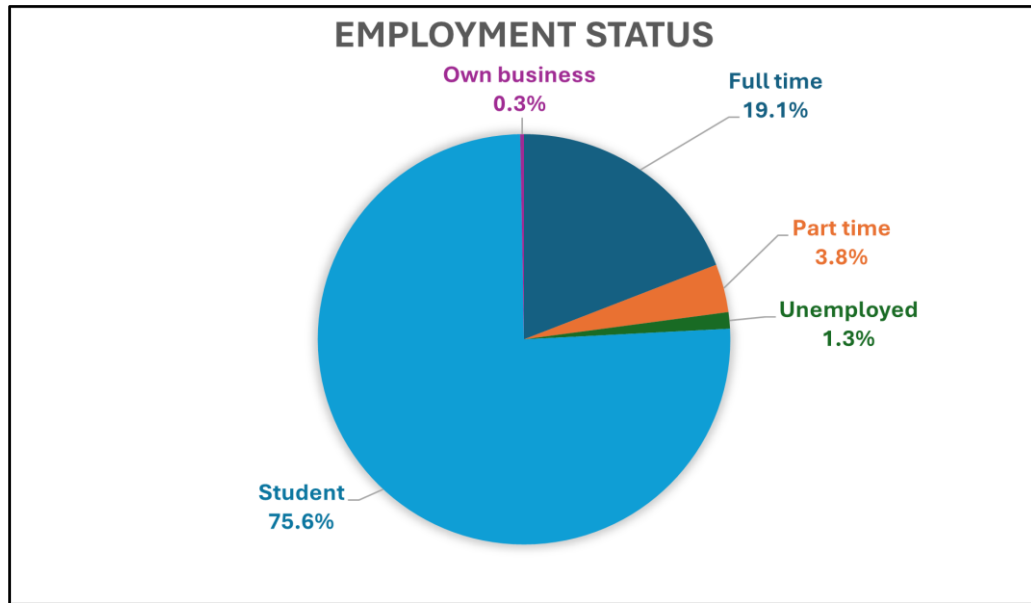


Figure 4.3 Respondent's Educational Level

Figure 4.3 displays the educational level of the respondents, and the highest percentage of respondent's educational level is bachelor's degree at 80.6% (258 respondents), followed by associate degree and foundation at 8.7% (28 respondents). Next are those at the master's degree level which accounted for 6.3% (20 respondents), High School at 4.1% (13 respondents), and Diploma at 0.3% (1 respondent).



*Figure 4.4 Respondent's Employment Status*

In Figure 4.4, the pie chart shows that 75.6% (242 respondents) are students. This could be due to the fact that the individuals we are examining belong to Generation Z who are aged 18 to 27 years old who comprise of groups that have just graduated from high school and are pursuing their studies in different institutions throughout Malaysia. Regardless, there are still 19.1% (61 respondents) who are working full time, 3.8% (12 respondents) who are working part time, 1.3% (4 respondents) people who are unemployed and 0.3% (1 respondent) who runs their own business among the respondents.

### **4.3 Reliability Test**

Before the distribution of the questionnaire, a pilot test was carried out with 32 Generation Z respondents in Malaysia for pilot study purposes and to test the

reliability of each item. The pilot test took about 5 days, and all questionnaires were successfully collected. The pilot study showed that all four variables (Attitude, Subjective Norm, Perceived behavioural Control and Environmental Consciousness) exceeded the good level of 0.70 (Taber, 2018). No amendments were made to the questionnaires, and all items remained unchanged. Table 5 displays the Cronbach's Alpha results from the pilot test that was conducted prior to the actual test and Table 6 shows the Cronbach's Alpha for all the independent variables and dependent variables for the actual study.

Table 4.1:

*Cronbach's Alpha for Pilot Study*

Variables	No. of Items	Cronbach's Alpha	Level of Reliability
<b>Independent Variables</b>			
ATT	5	0.796	Acceptable
SN	5	0.868	Good
PBC	5	0.738	Acceptable
EC	5	0.839	Good
<b>Dependent Variable</b>			
PI	5	0.879	Good

Table 4.2:

*Cronbach's Alpha for Actual Study*

Variables	No. of Items	Cronbach's Alpha	Level of Reliability
<b>Independent Variables</b>			
ATT	5	0.800	Good

SN	5	0.843	Good
PBC	5	0.803	Good
EC	5	0.830	Good
<b>Dependent Variable</b>			
PI	5	0.872	Good

## 4.4 Inferential Analysis

### 4.4.1 Pearson Correlations Coefficient Analysis

Table 4.3:

*Pearson Correlations Coefficient Analysis*

	ATT	SN	PBC	EC	PI
ATT	1				
SN	0.633	1			
PBC	0.657	0.723	1		
EC	0.668	0.619	0.670	1	
PI	0.722	0.667	0.689	0.657	1

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

According to the results of Pearson Correlations Coefficient Analysis, there is a positive relationship between the dependent variable (PI) and all independent variables (ATT, SN, PBC and EC). The variable that has the highest correlation value is Attitude, followed by Perceived behavioural Control, Subjective Norm and Environmental Consciousness.

## 4.4.2 Multiple Regression Analysis

Table 4.4:

### *Model Summary*

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
<b>1</b>	.797 <sup>a</sup>	.635	.630	.4213

The model summary shows a strong significant multiple regression model, with the Adjusted R Square of 0.630 indicating around 63% of the variability in the dependent variable is explained by the independent variables. The Adjusted R Square is a more reliable measure, as it takes into account the number of predictors, indicating no overfitting (Pallant, 2020). The Standard Error of 0.4213 shows the model's predictions are precise.

Table 4.5:

### *ANOVA*

<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Regression</b>	97.114	4	24.279	136.792	< .001 <sup>b</sup>
<b>Residual</b>	55.908	315	.177		
<b>Total</b>	153.002	319			

The results from the ANOVA table show that the regression model effectively predicts the dependent variable, Purchase Intention (PI). The model's reliability is confirmed by the high F value of 136.792 and a significance level below 0.001, demonstrating that the independent variables make a significant impact on the model. The regression sum of squares (97.114) is greater than the residual sum of squares (55.908), showing that the model explains a significant amount of the variability in Purchase Intention.

Table 4.6:

*Coefficients*

<b>Model</b>	<b>Unstandardized B</b>	<b>Coefficients Std. Error</b>	<b>Standardized Coefficients Beta</b>	<b>t</b>	<b>Sig.</b>
<b>1</b>					
<b>(Constant)</b>	.213	.171		1.242	.215
<b>ATT</b>	.418	.059	.357	7.037	<.001
<b>SN</b>	.176	.048	.192	3.660	<.001
<b>PBC</b>	.198	.053	.207	3.729	<.001
<b>EC</b>	.161	.051	.162	3.179	.002

*Note.* Dependent variable: PI

Table 8 shows the p value of Attitude (ATT), Subjective Norms (SN), Perceived behavioural Control (PBC) and Environmental Consciousness (EC). are less than 0.05. This indicates that variables significantly affect the Purchase Intention (PI). Attitude has the most significant positive influence on purchase intention, followed by Subjective Norm, Perceived behavioural Control, and Environmental Consciousness. Each of the independent variables show a strong correlation with the dependent variable, Purchase Intention.

**Multiple Linear Regression Equation**

$$PI = 0.213 + 0.418(ATT) + 0.176(SN) + 0.198(PBC) + 0.161(EC)$$

The multiple linear regression equation derived from the unstandardized B coefficients of each independent variable in Table 10.

PI = Gen Z’s Intention to Purchase Green Cosmetics in Malaysia

A (Constant) = 0.213

ATT (Attitude),  $B_1 = 0.418$

SN (Subjective Norms),  $B_2 = 0.176$

PBC (Perceived Behavioural Control),  $B_3 = 0.198$

EC (Environmental Consciousness),  $B_4 = 0.161$

This multiple linear regression equation is used to calculate the intention to purchase green cosmetics (PI) based on the values given by the independent variables.

## **4.5 Conclusion**

Based on the survey data of Gen Z's Intention to Purchase Green Cosmetics in Malaysia shows that most respondents are Chinese (91.3%) and female (77.5%), with the majority of respondents are students (75.6%) and holding a bachelor's degree (80.6%). The survey instruments were tested in a pilot study, and all variables had exceeded Cronbach's Alpha value which proves the level of reliability of the measurement items.

The validity of the research findings is additionally supported by two analyses, which are Pearson Correlation Coefficient Analysis and Multiple Regression Analysis. Analysis of the Pearson Correlation Coefficient indicates positive relationships between purchase intention and attitude, subjective norms, perceived behavioural control, and environmental consciousness, with attitude showing the most significant correlation. The ANOVA findings highlight the strong relationship between the independent and dependent variables, as shown by a high significant F-value of 136.318 and a p-value below 0.001. The model summary shows a regression model with an Adjusted R Square of 0.630 in purchase intention is accounted for by the independent variables.

## CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

### 5.1 Introduction

This chapter will examine the primary results, consequences, and suggestions. The article will explore both the theoretical and practical consequences of our study and offer suggestions for overcoming the limitations of our research that may be useful for future researchers.

Table 5.1:

*Summary of the Hypotheses Testing results*

Hypotheses	Significance	Result
H1: Attitude is positively related with Gen Z's intention to purchase green cosmetics in Malaysia	<.001	SUPPORTED
H2: Subjective norm is positively related with Gen Z's intention to purchase green cosmetics in Malaysia	<.001	SUPPORTED
H3: Perceived behavioural control is positively related with Gen Z's intention to purchase green cosmetics in Malaysia	<.001	SUPPORTED
H4: Environmental consciousness is positively related with Gen Z's intention to purchase green cosmetics in Malaysia	.002	SUPPORTED



## **5.2 Discussion of Major Findings**

### **H1: Attitude is positively related with Gen Z's intention to purchase green cosmetics in Malaysia**

The first hypothesis (H1) posits a positive relationship between attitude and Gen Z's intention to purchase green cosmetics in Malaysia. The finding of this research indicates that most of the Malaysian Gen Z showing positive attitudes towards purchasing green cosmetics. This finding aligns with the research by Lin et al. (2018), which found that consumer attitudes significantly impact their purchase intentions for green cosmetics. Similarly, Khan et al. (2022) show that a positive consumer attitude leads to both favourable purchase intentions and actual buying behaviour. Additional support from studies like Han et al. (2010) further confirms that positive attitudes towards eco-friendly products are crucial for driving purchasing behaviour. Thus, this finding emphasizes the importance of attitude towards green cosmetics in influencing Gen Z intention to purchase green cosmetics.

### **H2: Subjective norm is positively related with Gen Z's intention to purchase green cosmetics in Malaysia**

The second hypothesis (H2) posits a positive relationship between subjective norm and Gen Z's intention to purchase green cosmetics in Malaysia. The result of this study revealed that the purchase decision of green cosmetics among Malaysian Gen Z are highly influenced by their family members and friends. This finding aligns with the result of Cheah et al. (2019) who proves that perceived expectations and social influences from close social-circles also encourage green purchasing decisions. Moreover, Gunawan et al. (2023) states that individuals often make purchase decisions based on the expectations and behaviours within their social circles. Therefore, when Gen Z perceives strong social support for green cosmetics, their intention to purchase these products greatly increases.

**H3: Perceived behavioural control is positively related with Gen Z's intention to purchase green cosmetics in Malaysia**

The third hypothesis (H3) posits a positive relationship between perceived behavioural control and Gen Z's intention to purchase green cosmetics in Malaysia. The results of this study indicate that Gen Z's intention to purchase green cosmetics increases when they perceive greater control over their ability to access and acquire these products. This finding aligns with Limbu and Ahamed (2023) who states that higher perceived control over purchasing green products correlates with stronger purchase intentions. Additionally, the study conducted by Tarkiainen and Sundqvist (2005) confirms the idea that consumers who feel they possess the required resources and opportunities are more inclined to plan on purchasing eco-friendly items. Therefore, making sure that eco-friendly beauty products are available and that customers feel confident in buying them can increase willingness among Generation Z.

**H4: Environmental consciousness is positively related with Gen Z's intention to purchase green cosmetics in Malaysia**

The fourth hypothesis (H4) posits a positive relationship between environmental consciousness and Gen Z's intention to purchase green cosmetics in Malaysia. The findings of this research reflect a high level of environmental awareness among Malaysian Gen Z significantly influences their intention to purchase green cosmetics. This result is consistent with the studies conducted by Kar and Harichandan (2022) who demonstrate that a rise in environmental awareness leads to a higher request for environmentally friendly goods. A study conducted by Kumar et al. (2023) further validates that having a strong environmental conscience greatly influences sustainable consumption actions. As consumers gain more knowledge about environmental issues, their desire for products that reflect their values grows. The focus on sustainability emphasises the need to match product offerings with environmental principles in order to appeal to Gen Z customers. Companies can more effectively attract environmentally aware consumers by highlighting the eco-friendly advantages of green cosmetics.

## **5.3 Implications of Study**

### **5.3.1 Theoretical Implications**

This study utilises the Theory of Planned Behaviour to examine the factors influencing Malaysian Generation Z's intention to purchase green cosmetics. It investigates four variables: attitude, subjective norm, perceived behavioural control and one added variable which is environmental consciousness. The findings indicate that all four variables have a positive impact on Generation Z's purchase intention towards green cosmetics in Malaysia.

The study validates the constructs of attitude, subjective norms, and perceived behavioural control in the context of green cosmetics. The significant relationships between these constructs and purchase intentions support the robustness of these variables in predicting consumer purchase intention in the green product market. It indicates that future research could examine why these variables influence the purchase intention for green cosmetics and explore additional, yet-to-be-investigated factors that might also affect purchase intentions in the green product market that are unexplored.

Besides, future researchers could diversify their sample for a wider generalisation. Future researchers can investigate the purchase intention towards green cosmetics in different age groups such as millennials and Gen X. Also, to enhance the generalizability of findings, researchers should consider using larger samples from diverse populations, including those representatives of different countries, and conducting cross-country analyses (Limbu & Ahamed, 2023). Moreover, since most studies reviewed have been conducted in Asia, there is a need for future research to explore the determinants of green cosmetic consumption in Western societies to gain a more comprehensive understanding (Limbu & Ahamed, 2023).

### 5.3.2 Practical Implications

Based on the findings, attitude has been found to positively impact Generation Z's purchase intention towards green cosmetics as H1 is supported. On that account, companies that manufacture green cosmetics should strive to develop marketing campaigns that emphasise the advantages of green cosmetics over conventional ones, such as being non-toxic, environmentally friendly, and no animal testing. The reason is that these positive messages can help strengthen favourable attitudes toward green cosmetics. Additionally, corporations should recognize the importance of offering clear and transparent information about the ingredients and production processes of green cosmetics, as this can cultivate a favourable attitude. Consequently, informative content on websites can mitigate the perception of risk and hesitation to purchase a product and the perception of the information quality can affect the purchase intention of consumers (Khalil, 2017).

Besides, the study's results shows that the subjective norm also has significant influence towards the purchase intention of Gen Z towards green cosmetics in Malaysia since H2 is supported. Therefore, companies can consider diving into influencer endorsements by collaborating with local or foreign influencers and opinion leaders who advocate for sustainability and adoption of green products and are trusted among Generation Z to enhance the perceived social norm around purchasing green cosmetics. As a result, their endorsements and promotion may influence the target audiences' buying intention and subsequently their buying behaviour. Since the findings show that friends and family have positive influence on gen Z's purchase intention towards green cosmetics, companies can capitalise on that by developing referral programs. That is, green cosmetics producers could introduce creative referral programs that reward customers who introduce their friends and family to their products. As an analogy, offering discounts, limited edition products or vouchers to both the referrer and the new customer can incentivize word-of-mouth promotion among peers and family which acts as a free publicity for the company.

Moving on, perceived behavioural control has been proven to impact Generation Z's purchase intention towards green cosmetics since H3 is supported. With that in mind, companies should emphasise the affordability and convenience of obtaining their green cosmetics. Green cosmetics manufacturers should consider providing affordable pricing and convenient purchasing options, such as subscription services or bulk discounts, which can simplify the decision for consumers to choose green cosmetics. Plus, an affordable pricing strategy can help companies to gain a competitive edge in the green cosmetics industry as high price is one of the major barriers for consumers in purchasing green cosmetics (Dlamini & Mahowa, 2024). Moreover, offering guidance on how to incorporate these products into daily routines and how to handle the product can help lower perceived barriers.

Lastly, the added variable, environmental consciousness, also is proven to positively influence the purchase intention of Generation Z towards green cosmetics, where H4 is supported. Green cosmetics companies can boost their attractiveness by participating in CSR activities focused on environmental conservation. Efforts such as recycling programs, zero-waste packaging, and collaborations with environmental organisations can strongly appeal to eco-conscious consumers and raise awareness about environmental issues and benefits of using green cosmetics. Other than that, companies should ensure that the materials used in the production of their green cosmetics are sourced sustainably. Additionally, they should effectively communicate their ethical and environmentally friendly practices to consumers, highlighting the benefits of these practices. Moreover, obtaining certifications that verify sustainable practices and prominently displaying them on product labels or websites can increase consumer interest. This interest can lead to greater environmental awareness and consciousness as consumers learn more about the significance of these certifications.

Besides the companies themselves, the government can fulfil their roles to increase environmental consciousness among Gen Z in Malaysia and influence their purchase intentions towards green cosmetics by launching comprehensive educational campaigns aimed at raising awareness about the environmental impacts of conventional cosmetics and the benefits of green alternatives. These campaigns

should be strategically targeted at schools, universities, and popular online platforms frequented by Gen Z such as Facebook, Instagram, Tiktok and Xiaohongshu. Additionally, integrating environmental education into school and university curricula is essential, as it offers students opportunities to learn about sustainability and environmental issues beyond what traditional textbooks cover. This integration should emphasise sustainability and the significance of consumer choices on the environment, ensuring that young people are well-informed and motivated to make eco-friendly purchasing decisions. By adopting these strategies, governments can effectively enhance environmental awareness and encourage a shift towards greener consumer habits among Gen Z.

## **5.4 Limitations of Study**

The study offers valuable insights into Generation Z's purchase intentions towards green cosmetics in Malaysia, incorporating the Theory of Planned behaviour along with an additional variable. However, several important limitations need to be acknowledged. One significant limitation is the potential sample bias, as the respondents were Chinese Gen Z though the Malay community is the majority occupants in Malaysia (Siddharta, 2024). This limitation may restrict the generalizability of the findings where this study's findings cannot be applied to the whole country as the country comprises Mostly of Malay community at 70.4% as of July 2024 (Siddharta, 2024), and future research should strive for a more balanced demographic representation for a more accurate generalizability.

Another limitation of this study is the use of snowball sampling technique, where we requested friends from other universities to share our questionnaires with their own networks. This method introduces uncertainty regarding whether the questionnaires were actually distributed as intended, due to the large number of people involved and the difficulty of tracking and following up with each individual. Additionally, even with follow-ups, there was a risk of dishonesty from those who agreed to share the questionnaires. This limitation may have contributed to the low number of Malay respondents in the study.

Besides, though this study enhances the understanding of green cosmetics purchase intentions by incorporating environmental consciousness into the Theory of Planned Behaviour and primarily focuses on attitude, subjective norm, perceived behavioural control and environmental consciousness that account for 63% of variability in the dependent variable, there is still a 37% of the variability that is not explained by the model which could be caused by other overlooked influential factors. For that reason, determinants such as skin type, cultural features and educational level which were not examined as variables in this study can be a potential moderating factor as it is directly relevant to the context of cosmetics (Özdemir, Bostancı & Çakmak, 2019). For instance, skin type of individuals may affect cosmetics choices as different skin types react differently to cosmetic ingredients and such tailored priorities can affect the purchase intention.

## **5.5 Recommendations**

To enhance the generalizability of future studies, the researchers are recommended to collect a more balanced demographic representation by employing several strategies. The researchers can use quota sampling, which specific subgroups of the population are represented accurately by setting quotas (Moser, 1952). For instance, if a population is made up of 60% Malay, 30% Chinese, and 10% Indian, the sample must mirror these percentages to guarantee representativeness. Furthermore, it is essential to continuously monitor the demographic makeup while collecting data. If it is determined that certain groups are not adequately represented, recruitment strategies should be modified to focus on those groups in order to achieve a well-rounded sample. Post-stratification weighting can be used after data collection in situations where underrepresentation continues (Royal, 2019). This statistical method modifies the outcomes to better reflect the population, thereby improving the study's overall credibility.

To mitigate the limitations associated with the snowball sampling technique, future studies could employ more controlled and systematic sampling methods. The researchers can use stratified sampling techniques to represent the entire Generation

Z population in Malaysia by dividing the population into strata based on key demographic attributes such as ethnicity and gender. Stratified sampling involves grouping a population into strata based on shared attributes and collects proportional random samples from each stratum to form a pooled random sample (Sharma, G., 2017). The stratified sampling technique can reduce the possibility of human bias and make generalisations to the sample of the target population.

Lastly, researchers should consider expanding the theoretical framework by incorporating additional variables to overcome the limitation of a restricted range of variables. As stated in the Model Summary Table, 37% unexplained variability possibly due to other unnoticed factors. Expanding the scope of research to include these determinants can offer a more comprehensive understanding of the factors influencing green cosmetics purchase intentions. Skin type could be a potential factor that future researchers may investigate. According to Özdemir et al. (2019), Using chemical products without knowledge of your skin type or verifying their ingredients can lead to harmful side effects. Hence, one's skin type may influence their intention to purchase green cosmetics as green cosmetics are cosmetic products made from sustainable resources with natural ingredients, excluding chemicals, artificial colours, and other non-natural elements (Amberg & Fogarassy, 2019). Additionally, future studies could explore other relevant variables to provide a more comprehensive model of purchase intention.

## **5.6 Conclusion**

In summary, this study seeks to examine the factors that impact Generation Z's purchase intention towards green cosmetics in Malaysia. According to the results, it is expected that future researchers and professionals will develop a better comprehension of the factors that motivates Generation Z in Malaysia to purchase green cosmetics. Additionally, the study's limitations are outlined, and relevant recommendations are provided to help future researchers conduct more effective research. By comprehending the reasons that impact Generation Z purchase intention on green cosmetics in Malaysia, marketers can tailor their product offerings to better align with their values and preferences.



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## Appendix A

### CONTENT OF QUESTIONNAIRE/ RESEARCH INSTRUMENT

#### Screening Questions:

Are you aged between 18 to 27 years old?

- Yes
- No

Are you a Malaysian?

- Yes
- No

Do you know what is green cosmetics?

- Yes
- No

#### Section A: Demographic Questions

Name: \_\_\_\_\_

Please check the appropriate boxes.

Gender

- Female
- Male

Ethnicity

- Malay
- Chinese
- Indian
- Others: \_\_\_\_\_

Education Level:

- Less than High School
- High School
- Associate degree
- Bachelor's degree
- Master's degree

- Doctor of Philosophy
- Others: \_\_\_\_\_

**Employment Status**

- Full Time
- Part Time
- Unemployed
- Student
- Others: \_\_\_\_\_

**Section B: Factors Influencing Purchase Intention of Gen Z towards Green Cosmetics in Malaysia**

**Please click the option that best indicates your agreement with the following statement.**

- 1 - Strongly disagree**
- 2 - Disagree**
- 3 - Neutral**
- 4 - Agree**
- 5 - Strongly agree**

**Purchase Intention**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I have the intention to purchase green cosmetics in the future	1	2	3	4	5
I think I will get green cosmetics after this	1	2	3	4	5
I wish to purchase green cosmetics in the near future	1	2	3	4	5
The chances that I will buy green cosmetics is high	1	2	3	4	5
If green cosmetics are on the market, I will purchase it	1	2	3	4	5

**Attitude**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I'm fond of the idea of using green cosmetics	1	2	3	4	5
I believe it is a wise choice to purchase green cosmetics (modified)	1	2	3	4	5
Buying green cosmetics is pleasant (modified)	1	2	3	4	5
I think adopting green cosmetics is valuable	1	2	3	4	5
Buying green cosmetics is righteous	1	2	3	4	5

**Subjective Norm**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My family members believe that I should purchase green cosmetics	1	2	3	4	5
The majority of individuals I value would purchase green cosmetics	1	2	3	4	5
My intimate circle, whose viewpoints on cosmetics products I highly value, believe I should purchase green cosmetics	1	2	3	4	5
My friends' opinions on green cosmetics is	1	2	3	4	5



significant to me that I have to buy green cosmetics.					
People will view me positively if I buy green cosmetics	1	2	3	4	5

**Perceived Behavioural Control**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I have resources to purchase green products	1	2	3	4	5
I predict there will be many occasions where i can purchase green cosmetics	1	2	3	4	5
If it were solely my decision, I'd definitely choose green cosmetics	1	2	3	4	5
I see myself as capable of purchasing green products in future.	1	2	3	4	5
Overall, green cosmetics are available in stores I frequently shop at.	1	2	3	4	5

**Environmental Consciousness**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I frequently engage in conversations about	1	2	3	4	5

environmental issues with my friends.					
I am concerned about the harm being done to the wildlife cause by cosmetic manufacturing.	1	2	3	4	5
I have significant concern about environmental issues	1	2	3	4	5
I prefer to purchase products that made in environmentally responsible ways.	1	2	3	4	5
I strive to make environmentally conscious purchases.	1	2	3	4	5

**Appendix B**

**SPSS RESULTS**

**Purchase Intention**

<b>Case Processing Summary</b>			
		N	%
Cases	Valid	320	100.0
	Excluded <sup>a</sup>	0	.0
	Total	320	100.0

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

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.872	.874	5

<b>Item Statistics</b>			
	Mean	Std. Deviation	N
I have the intention to purchase green cosmetics in the future	4.08	.792	320
I think I will get green cosmetics after this	4.01	.864	320
I wish to purchase green cosmetics in the near future	4.08	.819	320
The chances that I will buy green cosmetics is high	3.97	.963	320
If green cosmetics are on the market, I will purchase it	4.08	.807	320

<b>Inter-Item Correlation Matrix</b>					
	I have the intention to purchase green cosmetics in the future	I think I will get green cosmetics after this	I wish to purchase green cosmetics in the near future	The chances that I will buy green cosmetics is high	If green cosmetics are on the market, I will purchase it
I have the intention to purchase green cosmetics in the future	1.000	.576	.638	.636	.603
I think I will get green cosmetics after this	.576	1.000	.552	.645	.507
I wish to purchase green cosmetics in the near future	.638	.552	1.000	.579	.540
The chances that I will buy green cosmetics is high	.636	.645	.579	1.000	.528
If green cosmetics are on the market, I will purchase it	.603	.507	.540	.528	1.000

Inter-Item Covariance Matrix					
	I have the intention to purchase green cosmetics in the future	I think I will get green cosmetics after this	I wish to purchase green cosmetics in the near future	The chances that I will buy green cosmetics is high	If green cosmetics are on the market, I will purchase it
I have the intention to purchase green cosmetics in the future	.628	.394	.414	.485	.386
I think I will get green cosmetics after this	.394	.746	.391	.536	.353
I wish to purchase green cosmetics in the near future	.414	.391	.671	.457	.358
The chances that I will buy green cosmetics is high	.485	.536	.457	.927	.410
If green cosmetics are on the market, I will purchase it	.386	.353	.358	.410	.652

Summary Item Statistics							
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.043	3.969	4.081	.112	1.028	.002	5
Item Variances	.725	.628	.927	.299	1.477	.015	5
Inter-Item Covariances	.418	.353	.536	.183	1.519	.003	5
Inter-Item Correlations	.580	.507	.645	.139	1.273	.002	5

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I have the intention to purchase green cosmetics in the future	16.14	8.006	.749	.569	.834
I think I will get green cosmetics after this	16.20	7.897	.690	.491	.847
I wish to purchase green cosmetics in the near future	16.14	8.081	.695	.494	.846
The chances that I will buy green cosmetics is high	16.24	7.288	.727	.544	.840
If green cosmetics are on the market, I will purchase it	16.13	8.328	.647	.432	.857

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
20.21	11.992	3.463	5

ANOVA with Cochran's Test						
		Sum of Squares	df	Mean Square	Cochran's Q	Sig
Between People		765.110	319	2.398		
Within People	Between Items	3.185	4	.796	10.347	.035
	Residual	390.815	1276	.306		
	Total	394.000	1280	.308		
Total		1159.110	1599	.725		

Grand Mean = 4.04

**Attitude**

<b>Case Processing Summary</b>			
		N	%
Cases	Valid	320	100.0
	Excluded <sup>a</sup>	0	.0
	Total	320	100.0

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

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.800	.801	5

<b>Item Statistics</b>			
	Mean	Std. Deviation	N
I'm fond of the idea of using green cosmetics	4.01	.838	320
I believe it is a wise choice to purchase green cosmetics	4.17	.759	320
Buying green cosmetics is pleasant	4.17	.786	320
I think adopting green cosmetics is valuable	4.17	.812	320
Buying green cosmetics is righteous	4.18	.767	320

<b>Inter-Item Correlation Matrix</b>					
	I'm fond of the idea of using green cosmetics	I believe it is a wise choice to purchase green cosmetics	Buying green cosmetics is pleasant	I think adopting green cosmetics is valuable	Buying green cosmetics is righteous
I'm fond of the idea of using green cosmetics	1.000	.457	.465	.339	.481
I believe it is a wise choice to purchase green cosmetics	.457	1.000	.435	.412	.421
Buying green cosmetics is pleasant	.465	.435	1.000	.487	.480
I think adopting green cosmetics is valuable	.339	.412	.487	1.000	.486
Buying green cosmetics is righteous	.481	.421	.480	.486	1.000

<b>Inter-Item Covariance Matrix</b>					
	I'm fond of the idea of using green cosmetics	I believe it is a wise choice to purchase green cosmetics	Buying green cosmetics is pleasant	I think adopting green cosmetics is valuable	Buying green cosmetics is righteous
I'm fond of the idea of using green cosmetics	.702	.290	.306	.231	.309
I believe it is a wise choice to purchase green cosmetics	.290	.575	.259	.254	.245
Buying green cosmetics is pleasant	.306	.259	.617	.311	.289
I think adopting green cosmetics is valuable	.231	.254	.311	.659	.302
Buying green cosmetics is righteous	.309	.245	.289	.302	.588

Summary Item Statistics							
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.139	4.006	4.181	.175	1.044	.006	5
Item Variances	.628	.575	.702	.127	1.220	.003	5
Inter-Item Covariances	.280	.231	.311	.080	1.345	.001	5
Inter-Item Correlations	.446	.339	.487	.147	1.434	.002	5

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I'm fond of the idea of using green cosmetics	16.69	5.758	.565	.348	.768
I believe it is a wise choice to purchase green cosmetics	16.52	6.062	.561	.318	.769
Buying green cosmetics is pleasant	16.53	5.786	.616	.383	.752
I think adopting green cosmetics is valuable	16.53	5.880	.557	.342	.770
Buying green cosmetics is righteous	16.51	5.856	.617	.387	.752

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
20.69	8.734	2.955	5

ANOVA with Cochran's Test						
		Sum of Squares	df	Mean Square	Cochran's Q	Sig
Between People		557.197	319	1.747		
Within People	Between Items	7.066	4	1.767	20.011	<.001
	Residual	444.934	1276	.349		
	Total	452.000	1280	.353		
Total		1009.197	1599	.631		

Grand Mean = 4.14

**Subjective Norm**

Case Processing Summary			
		N	%
Cases	Valid	320	100.0
	Excluded <sup>a</sup>	0	.0
	Total	320	100.0

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

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.843	.843	5

Item Statistics			
	Mean	Std. Deviation	N
My family members believe that I should purchase green cosmetics	3.65	.978	320
The majority of individuals I value would purchase green cosmetics	3.80	.972	320
My intimate circle, whose viewpoints on cosmetics products I highly value, believe I should purchase green cosmetics	3.87	.907	320
My friends' opinions on green cosmetics is significant to me that I have to buy green cosmetics.	3.86	1.015	320
People will view me positively if I buy green cosmetics	3.87	.954	320

Inter-Item Correlation Matrix					
	My family members believe that I should purchase green cosmetics	The majority of individuals I value would purchase green cosmetics	My intimate circle, whose viewpoints on cosmetics products I highly value, believe I should purchase green cosmetics	My friends' opinions on green cosmetics is significant to me that I have to buy green cosmetics.	People will view me positively if I buy green cosmetics
My family members believe that I should purchase green cosmetics	1.000	.625	.545	.544	.397
The majority of individuals I value would purchase green cosmetics	.625	1.000	.568	.601	.421
My intimate circle, whose viewpoints on cosmetics products I highly value, believe I should purchase green cosmetics	.545	.568	1.000	.552	.502
My friends' opinions on green cosmetics is significant to me that I have to buy green cosmetics.	.544	.601	.552	1.000	.424
People will view me positively if I buy green cosmetics	.397	.421	.502	.424	1.000



**Inter-Item Covariance Matrix**

	My family members believe that I should purchase green cosmetics	The majority of individuals I value would purchase green cosmetics	My intimate circle, whose viewpoints on cosmetics products I highly value, believe I should purchase green cosmetics	My friends' opinions on green cosmetics is significant to me that I have to buy green cosmetics.	People will view me positively if I buy green cosmetics
My family members believe that I should purchase green cosmetics	.956	.594	.483	.540	.370
The majority of individuals I value would purchase green cosmetics	.594	.944	.500	.592	.391
My intimate circle, whose viewpoints on cosmetics products I highly value, believe I should purchase green cosmetics	.483	.500	.823	.508	.434
My friends' opinions on green cosmetics is significant to me that I have to buy green cosmetics.	.540	.592	.508	1.030	.411
People will view me positively if I buy green cosmetics	.370	.391	.434	.411	.911

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.809	3.647	3.869	.222	1.061	.009	5
Item Variances	.933	.823	1.030	.207	1.252	.006	5
Inter-Item Covariances	.482	.370	.594	.223	1.603	.006	5
Inter-Item Correlations	.518	.397	.625	.228	1.574	.006	5

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
My family members believe that I should purchase green cosmetics	15.40	9.381	.663	.467	.806
The majority of individuals I value would purchase green cosmetics	15.24	9.213	.704	.519	.795
My intimate circle, whose viewpoints on cosmetics products I highly value, believe I should purchase green cosmetics	15.17	9.637	.684	.469	.802
My friends' opinions on green cosmetics is significant to me that I have to buy green cosmetics.	15.18	9.179	.667	.456	.805
People will view me positively if I buy green cosmetics	15.17	10.189	.527	.297	.842

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
19.04	14.312	3.783	5

**ANOVA with Cochran's Test**

	Sum of Squares	df	Mean Square	Cochran's Q	Sig	
Between People	913.078	319	2.862			
Within People	Between Items	11.534	4	2.883	25.176	<.001
	Residual	574.866	1276	.451		
	Total	586.400	1280	.458		
Total	1499.478	1599	.938			

Grand Mean = 3.81



**Perceived Behavioural Control**

<b>Case Processing Summary</b>			
		N	%
Cases	Valid	320	100.0
	Excluded <sup>a</sup>	0	.0
	Total	320	100.0

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

<b>Reliability Statistics</b>			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	
.803	.806	5	

<b>Item Statistics</b>			
	Mean	Std. Deviation	N
I have resources to purchase green products	3.78	1.048	320
I predict there will be many occasions where i can purchase green cosmetics	3.91	.954	320
If it were solely my decision, I'd definitely choose green cosmetics	4.02	.892	320
I see myself as capable of purchasing green products in future	4.06	.830	320
Overall, green cosmetics are available in stores I frequently shop at.	3.80	1.087	320

<b>Inter-Item Correlation Matrix</b>					
	I have resources to purchase green products	I predict there will be many occasions where i can purchase green cosmetics	If it were solely my decision, I'd definitely choose green cosmetics	I see myself as capable of purchasing green products in future	Overall, green cosmetics are available in stores I frequently shop at.
I have resources to purchase green products	1.000	.507	.350	.332	.514
I predict there will be many occasions where i can purchase green cosmetics	.507	1.000	.481	.466	.448
If it were solely my decision, I'd definitely choose green cosmetics	.350	.481	1.000	.511	.482
I see myself as capable of purchasing green products in future	.332	.466	.511	1.000	.444
Overall, green cosmetics are available in stores I frequently shop at.	.514	.448	.482	.444	1.000

**Inter-Item Covariance Matrix**

	I have resources to purchase green products	I predict there will be many occasions where i can purchase green cosmetics	If it were solely my decision, I'd definitely choose green cosmetics	I see myself as capable of purchasing green products in future	Overall, green cosmetics are available in stores I frequently shop at.
I have resources to purchase green products	1.099	.507	.327	.289	.586
I predict there will be many occasions where i can purchase green cosmetics	.507	.910	.409	.369	.465
If it were solely my decision, I'd definitely choose green cosmetics	.327	.409	.796	.378	.468
I see myself as capable of purchasing green products in future	.289	.369	.378	.689	.401
Overall, green cosmetics are available in stores I frequently shop at.	.586	.465	.468	.401	1.182

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.914	3.781	4.059	.278	1.074	.016	5
Item Variances	.935	.689	1.182	.493	1.716	.042	5
Inter-Item Covariances	.420	.289	.586	.297	2.029	.007	5
Inter-Item Correlations	.453	.332	.514	.182	1.549	.004	5

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I have resources to purchase green products	15.79	8.557	.557	.360	.776
I predict there will be many occasions where i can purchase green cosmetics	15.66	8.664	.623	.403	.754
If it were solely my decision, I'd definitely choose green cosmetics	15.55	9.113	.587	.381	.765
I see myself as capable of purchasing green products in future	15.51	9.511	.561	.350	.774
Overall, green cosmetics are available in stores I frequently shop at.	15.77	8.053	.622	.399	.755

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
19.57	13.074	3.616	5

**ANOVA with Cochran's Test**

	Sum of Squares	df	Mean Square	Cochran's Q	Sig
Between People	834.097	319	2.615		
Within People					
Between Items	20.079	4	5.020	37.907	<.001
Residual	657.921	1276	.516		
Total	678.000	1280	.530		
Total	1512.097	1599	.946		

Grand Mean = 3.91

**Pearson Correlation Coefficient Analysis**

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
PI	4.043	.6926	320
ATT	4.139	.5911	320

<b>Correlations</b>			
		PI	ATT
PI	Pearson Correlation	1	.722**
	Sig. (2-tailed)		<.001
	Sum of Squares and Cross-products	153.022	94.313
	Covariance	.480	.296
	N	320	320
ATT	Pearson Correlation	.722**	1
	Sig. (2-tailed)	<.001	
	Sum of Squares and Cross-products	94.313	111.440
	Covariance	.296	.349
	N	320	320

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

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
PI	4.043	.6926	320
SN	3.809	.7566	320

<b>Correlations</b>			
		PI	SN
PI	Pearson Correlation	1	.667**
	Sig. (2-tailed)		<.001
	Sum of Squares and Cross-products	153.022	111.561
	Covariance	.480	.350
	N	320	320
SN	Pearson Correlation	.667**	1
	Sig. (2-tailed)	<.001	
	Sum of Squares and Cross-products	111.561	182.615
	Covariance	.350	.572
	N	320	320

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

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
PI	4.043	.6926	320
PBC	3.914	.7231	320

<b>Correlations</b>			
		PI	PBC
PI	Pearson Correlation	1	.689**
	Sig. (2-tailed)		<.001
	Sum of Squares and Cross-products	153.022	110.013
	Covariance	.480	.345
	N	320	320
PBC	Pearson Correlation	.689**	1
	Sig. (2-tailed)	<.001	
	Sum of Squares and Cross-products	110.013	166.820
	Covariance	.345	.523
	N	320	320

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

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
PI	4.043	.6926	320
EC	4.058	.6948	320

<b>Correlations</b>			
		PI	EC
PI	Pearson Correlation	1	.657**
	Sig. (2-tailed)		<.001
	Sum of Squares and Cross-products	153.022	100.929
	Covariance	.480	.316
	N	320	320
EC	Pearson Correlation	.657**	1
	Sig. (2-tailed)	<.001	
	Sum of Squares and Cross-products	100.929	153.999
	Covariance	.316	.483
	N	320	320

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

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
ATT	4.139	.5911	320
SN	3.809	.7566	320

<b>Correlations</b>			
		ATT	SN
ATT	Pearson Correlation	1	.633**
	Sig. (2-tailed)		<.001
	Sum of Squares and Cross-products	111.440	90.251
	Covariance	.349	.283
	N	320	320
SN	Pearson Correlation	.633**	1
	Sig. (2-tailed)	<.001	
	Sum of Squares and Cross-products	90.251	182.615
	Covariance	.283	.572
	N	320	320

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

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
ATT	4.139	.5911	320
PBC	3.914	.7231	320

<b>Correlations</b>			
		ATT	PBC
ATT	Pearson Correlation	1	.657**
	Sig. (2-tailed)		<.001
	Sum of Squares and Cross-products	111.440	89.590
	Covariance	.349	.281
	N	320	320
PBC	Pearson Correlation	.657**	1
	Sig. (2-tailed)	<.001	
	Sum of Squares and Cross-products	89.590	166.820
	Covariance	.281	.523
	N	320	320

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

Descriptive Statistics			
	Mean	Std. Deviation	N
ATT	4.139	.5911	320
EC	4.058	.6948	320

Correlations			
		ATT	EC
ATT	Pearson Correlation	1	.668**
	Sig. (2-tailed)		<.001
	Sum of Squares and Cross-products	111.440	87.459
	Covariance	.349	.274
	N	320	320
EC	Pearson Correlation	.668**	1
	Sig. (2-tailed)	<.001	
	Sum of Squares and Cross-products	87.459	153.999
	Covariance	.274	.483
	N	320	320

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

Descriptive Statistics			
	Mean	Std. Deviation	N
SN	3.809	.7566	320
PBC	3.914	.7231	320

Correlations			
		SN	PBC
SN	Pearson Correlation	1	.723**
	Sig. (2-tailed)		<.001
	Sum of Squares and Cross-products	182.615	126.161
	Covariance	.572	.395
	N	320	320
PBC	Pearson Correlation	.723**	1
	Sig. (2-tailed)	<.001	
	Sum of Squares and Cross-products	126.161	166.820
	Covariance	.395	.523
	N	320	320

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



<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
SN	3.809	.7566	320
EC	4.058	.6948	320

<b>Correlations</b>			
		SN	EC
SN	Pearson Correlation	1	.619**
	Sig. (2-tailed)		<.001
	Sum of Squares and Cross-products	182.615	103.837
	Covariance	.572	.326
	N	320	320
EC	Pearson Correlation	.619**	1
	Sig. (2-tailed)	<.001	
	Sum of Squares and Cross-products	103.837	153.999
	Covariance	.326	.483
	N	320	320

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

<b>Descriptive Statistics</b>			
	Mean	Std. Deviation	N
PBC	3.914	.7231	320
EC	4.058	.6948	320

<b>Correlations</b>			
		PBC	EC
PBC	Pearson Correlation	1	.670**
	Sig. (2-tailed)		<.001
	Sum of Squares and Cross-products	166.820	107.404
	Covariance	.523	.337
	N	320	320
EC	Pearson Correlation	.670**	1
	Sig. (2-tailed)	<.001	
	Sum of Squares and Cross-products	107.404	153.999
	Covariance	.337	.483
	N	320	320

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

**Model Summary, Anova & Coefficients**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.797 <sup>a</sup>	.635	.630	.4213	.635	136.792	4	315	<.001
a. Predictors: (Constant), EC, SN, ATT, PBC									
ANOVA <sup>a</sup>									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	97.114	4	24.279	136.792	<.001 <sup>b</sup>			
	Residual	55.908	315	.177					
	Total	153.022	319						
a. Dependent Variable: PI									
b. Predictors: (Constant), EC, SN, ATT, PBC									
Coefficients <sup>a</sup>									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		
		B	Std. Error	Beta			Lower Bound	Upper Bound	
1	(Constant)	.213	.171		1.242	.215	-.124	.550	
	ATT	.418	.059	.357	7.037	<.001	.301	.535	
	SN	.176	.048	.192	3.660	<.001	.081	.270	
	PBC	.198	.053	.207	3.729	<.001	.094	.303	
	EC	.161	.051	.162	3.179	.002	.061	.261	
a. Dependent Variable: PI									



**Appendix C**

**GOOGLE QUESTIONNAIRE FORM QR CODE**

