

DRIVERS OF GENERATION Z CONSUMERS'
PURCHASE INTENTION TOWARD GREEN SKIN
CARE PRODUCTS

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DRIVERS OF GENERATION Z CONSUMERS'
PURCHASE INTENTION TOWARD GREEN SKIN CARE
PRODUCTS

BY

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- (3) Sole contribution has been made by me in completing the FYP.
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LIST OF ABBREVIATIONS

DV	Dependent Variable
IV	Independent Variable
ATT	Attitude
SN	Subjective Norms
PBC	Perceived Behavioural Control
P	Price
EK	Environmental Knowledge
TPB	Theory of Planned Behaviour
Extended TPB	Extended Theory of Planned Behaviour
RO	Research Objective
RQ	Research Question
H1	Hypothesis 1
H2	Hypothesis 2
H3	Hypothesis 3
H4	Hypothesis 4
H5	Hypothesis 5
N	Number of Respondents
p	P-value
r	Pearson Correlation Coefficient
R ²	R-squared
F	F-value
t	t-statistic

B	Unstandardized Coefficient
Beta	Standardized Coefficient
Std. Error	Standard Error
df	Degree of Freedom
Sig.	Significance Level
MLR	Multiple Linear Regression Analysis
ANOVA	Analysis of Variance
VIF	Variance Inflation Factor
SPSS	Statistical Package for the Social Sciences
PLS-SEM	Partial Least Squares Structural Equation Modelling
ASEAN	Association of Southeast Asian Nations
CAGR	Compound Annual Growth Rate
IoT	Internet of Things
PCPs	Personal Care Products
SMEs	Small Medium Enterprises
WOM	Word of Mouth
SEM	Structural Equation Modelling
LISREL	Linear Structural Relations
VBN	Value-Belief-Norm Theory
DOI	Diffusion of Innovation
Gen Z/Gen Zers	Generation Z
SDG	Sustainable Development Goal
USD/US\$	United States Dollar
RM	Ringgit Malaysia

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PREFACE

This research was conducted in response to the growing concern over environmental sustainability and the increasing influence of consumer behaviour on the environment. In recent years, the skincare industry has shifted toward eco-friendly products, driven largely by rising awareness of issues such as climate change and environmental degradation. This trend is especially evident among Generation Z, who are known for their strong environmental values and digital engagement.

The idea for this study emerged from observing the gap between consumers' positive attitudes toward sustainable products and their actual purchasing behaviour. Although many individuals express concern for the environment, their willingness to purchase green skincare products is often influenced by various factors such as price, knowledge, and social influence. This raised an interest in exploring what truly drives Generation Z's purchase intention in the Malaysian context.

To address this, the study applies the extended Theory of Planned Behaviour (TPB), incorporating additional variables such as price and environmental knowledge to better understand consumer decision-making. A quantitative approach was used, with data collected from Generation Z respondents through an online survey.

This research aims to provide meaningful insights into the factors influencing sustainable consumption, while also offering practical value to marketers, businesses, and policymakers in promoting green skincare products. Ultimately, it reflects an effort to support more informed and environmentally responsible consumer choices.

ABSTRACT

The increasing awareness of environmental issues has significantly influenced consumer behaviour, particularly in the beauty and skincare industry. This study aims to examine the factors influencing Generation Z's purchase intention toward green skin care products in Malaysia. Despite the growing demand for eco-friendly products, a gap remains between consumers' environmental awareness and their actual purchasing behaviour. Therefore, this research seeks to identify the key determinants that drive or hinder purchase intention among Generation Z consumers. This study is grounded in the extended Theory of Planned Behaviour (TPB), incorporating attitude, subjective norms, and perceived behavioural control as core variables, along with additional factors such as price and environmental knowledge. A quantitative research approach was adopted, and data were collected through a structured online questionnaire, namely Google Forms, distributed to Generation Z respondents across Malaysia. A total of 224 valid responses were obtained and analysed to examine the relationships between the independent variables and purchase intention. The findings of this study provide valuable insights into how psychological, social, and economic factors influence sustainable purchasing behaviour. Attitude, subjective norms, and perceived behavioural control play significant roles in shaping consumers' intentions, while price and environmental knowledge further enhance the explanatory power of the model. The results highlight that although Generation Z consumers are environmentally conscious, factors such as affordability, accessibility, and knowledge gaps continue to affect their decision-making process. This research contributes to both academic literature and practical applications by offering a deeper understanding of Generation Z's behaviour in the green skin care market. The findings can assist marketers in developing effective strategies, policymakers in promoting sustainable consumption, and businesses in enhancing their competitive advantage within the growing eco-friendly beauty industry.

Keywords: Green Skin Care, Purchase Intention, Generation Z, Environmental Knowledge, Theory of Planned Behaviour

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

The paper contributions are first addressed in the initial sections, beginning with an introduction to the study context and proceeding to a discussion of the research gap, development of research questions and objectives, and a concluding examination of the study's significance.

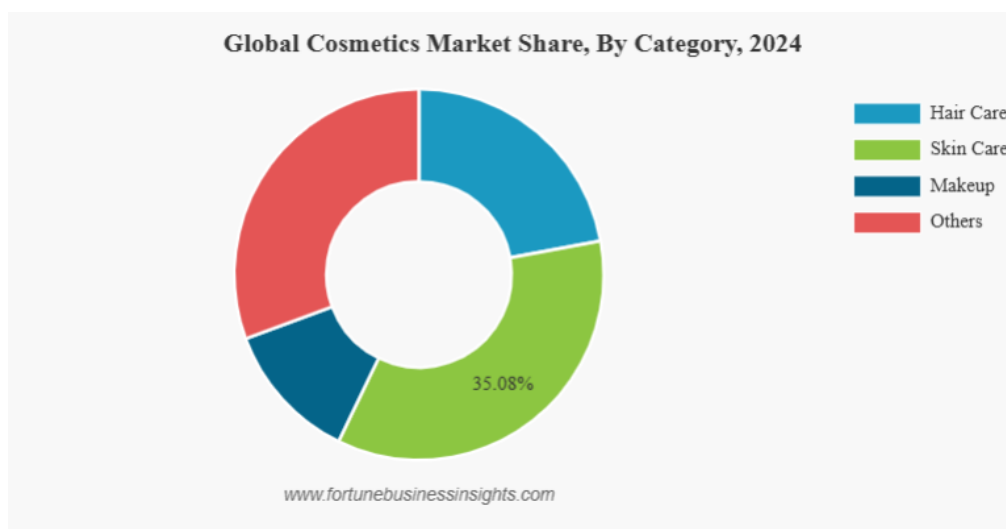
1.1 Research Background

Due to the severe effects of climate change, environmental degradation has been the primary cause of concern in recent years (Ahmed, Ali, Kousar, and Ahmed, 2022). The earth's natural circumstances are being negatively impacted by catastrophic climate change, which is disrupting traditional lifestyles and posing major challenges to human life (Rossati, 2016; Chen, Sharma, and Liu, 2023). Businesses have encouraged customers to purchase eco-friendly goods for decades (Delafrooz, Taleghani, and Nouri, 2014). It is noteworthy that consumers driven to purchase eco-friendly products will ultimately contribute to a clean environment and a healthier existence (Kianpour, Anvari, Jusoh, and Fauzi Othman, 2014). Environmentally conscious consumers are typically more ecological than non-concerned ones (Simanjuntak, Nafila, Yuliati, Johan, Najib, and Sabri, 2023). Another study by Kong, Harun, Sulong, and Lily (2014) noted that consumers are becoming increasingly aware of the need to purchase eco-friendly items, which has raised awareness of environmental issues. Therefore, Praharjo and Wijaya (2023) mentioned that consumer attitudes and actions around the transition from traditional to eco-friendly skincare products have increased substantially.

The term "green skin care" defines that it is a product in recyclable packaging with substances that are minimally detrimental to the environment (Jackson, 2023). Not only that, but the terms "green skin care" and "organic skin care" are frequently

used interchangeably and share a similar meaning (Amberg and Fogarassy, 2019). It also refers to prioritizing environmental sustainability and avoiding harming natural resources (Paul, Modi, and Patel, 2016). Since the skin is the greatest organ in the body, natural products are crucial (Lim, Yeo, and Lee, 2020). Over time, adopting natural skincare products not only benefits the environment and you, but it also lessens the stimulation that non-organic skincare products cause to your skin (Lim et al., 2020). Skincare, haircare, makeup, perfumes, and hygiene items are all included in the larger category of cosmetics (Hafiz and Ali, 2018). According to the study of Juraimi, O'Brien, Hirsh, Tan, Teo, Khaiat, Kim, and Smith (2023), in most regions of the world, consumers of all ages frequently use cosmetics and personal care products (PCPs). However, Kamwendo and Maharaj (2022) asserted that skincare products are used frequently, creating a greater demand for longer-lasting goods. In both rich and emerging nations, the cosmetics sector has been growing quickly (Hassali, Al-Tamimi, Dawood, Verma, 2015). Furthermore, Chin, Jiang, Mufidah, Persada, and Noer (2018) observed that the increasing environmental consciousness of society is encouraging customers to use eco-friendly cosmetics. Green consumerism was one of the trends that was seen to be advantageous for maintaining environmental integrity (Mbokane and Modley, 2024). Based on Figure 1.1, the skincare segment topped the industry in 2024 with a market share of 35.08% because of increased global product availability and a rise in new skincare brands (Fortune Business Insights, 2025).

Figure 1.1: Global Cosmetics Market Share by Category in 2024



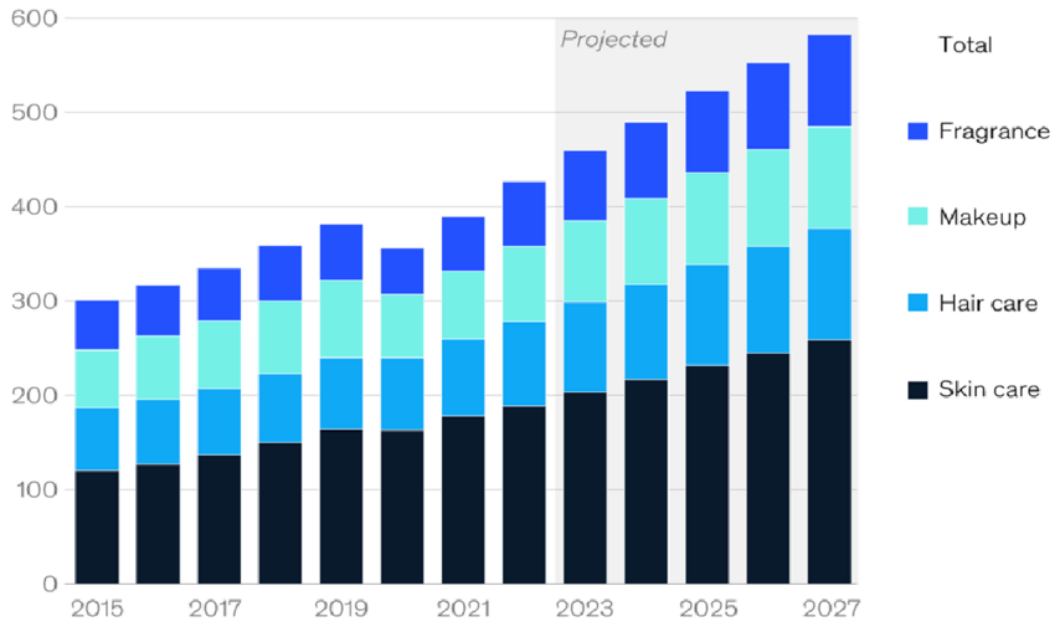
Source: Fortune Business Insights. (2025)

Green skincare products are the fastest-expanding global market, outpacing other green cosmetics (Chin et al., 2018). The market for natural and organic cosmetics was estimated to be worth USD 34.5 billion in 2018 and is projected to increase at a compound annual growth rate (CAGR) of 5.2% from 2018 to 2027, reaching USD 54.5 billion (Limbu, Pham, and Nguyen, 2022). Therefore, this increase shows that consumers are becoming more interested in items that are both efficient and ecologically friendly. The need for green skincare is predicted to continue growing as sustainability awareness continues to impact consumer behavior, pushing companies to develop and implement eco-friendly procedures (Al Mamun, Che Nawi, Hayat, and Zainol, 2020; Baltacı, Durmaz, and Baltacı, 2025).

According to Swidi, Cheng, Hassan, Al-Hosam, and Mohd Kassim (2010), it was determined that the cosmetics industry seems to be expanding at the quickest rate in Asia. Asia-Pacific is the second-largest market after Western Europe, with a current value of around \$70 billion (Lim et al., 2020). Malaysia's industry for health and cosmetic products is expanding quickly (Hassali et al., 2015). Moreover, Beh (2017, as cited in Nizam, Mansor, and Supaat, 2019) highlighted that Malaysians are predicted to spend over RM9.61 billion on toiletries and cosmetics each year. In addition, according to the recent data from Trading Economics (2025), it shows that Malaysia imported nearly \$1.50 billion in essential oils, fragrances, cosmetics, and toiletries, demonstrating high consumer demand for foreign-sourced beauty and toiletry products to meet domestic demands. Skincare products lead the cosmetics market at \$229 million, with eye makeup coming in second at \$20.6 million (Hassali et al., 2015). Malaysia's beauty and personal care sector is expected to generate \$2.421 billion in revenue by 2020 (Sim, 2022). According to Figure 1.2, the Malaysian skincare market is projected to reach USD 888.20 million in 2024, with an estimated contribution of USD 25.62 per person (Kang, Senathirajah, Haque, Lertatthakornkit, Krishnasamy, Wu, and Isa, 2024). The nation's cultural appreciation of traditional remedies is reflected in the rising demand for natural and botanical skincare products (Kang et al., 2024). In Malaysia, the Natural Skin Care industry is projected to generate US\$122.74 million in sales by 2025. The market is predicted to expand by 0.97% year (compound annual growth rate 2025-2030).

The market for natural skin care in Malaysia is increasing due to clients' increased preference for sustainable and organic beauty products (Statista, 2025).

Figure 1.2: Global Beauty Market Retail Sales by Category (\$ Billion)



Source: Kang et al. (2024)

An increasing number of local firms that prioritize natural ingredients and sustainable manufacturing processes are contributing to the growth of green skincare in Malaysia. As the country's interest in eco-friendly beauty products grows, companies including Root Remedies, Claire Organics, Hygr, Joi, and The Mineraw have become well-known for their clean formulations, plant-based ingredients, and eco-friendly packaging (Salehaldin, 2020; Lim, 2023). Prasanna and Priyanka (2024) explained that younger consumers who place a high value on authenticity, transparency, and environmental consciousness while making purchases are drawn to these brands. Their appeal is consistent with broader market trends, which indicate that Malaysians are actively looking for safer, more environmentally friendly substitutes for conventional goods and are growing more conscious of the advantages of natural and organic skincare (Prakash, 2025). Malaysia's standing in the regional natural cosmetics market is strengthened by the growth of local green skincare Small and Medium Enterprises (SMEs). This development also provides a significant basis for researching Generation Z, one of

the most powerful consumer groups pushing demand for sustainable skincare solutions (Sagar, Jyothi, and Ranjith, 2025).

1.2 Target Respondent

According to Mahapatra, Bhullar, and Gupta (2022), individuals born between 1995 and 2010 who are between the ages of 15 and 30 are referred to as Gen Zers. These children grew up surrounded by gadgets typical of the digital age, including computers, tablets, video game consoles, Internet of Things (IoT), and cell phones (Chaney, Touzani, and Ben Slimane, 2017; Gonçalves, Barbosa, and Rocha, 2019). The target demographic is digital natives, also known as the Facebook Generation, who are accustomed to using the internet, smart gadgets, Wi-Fi, and social media (Dolot, 2018). Additionally, Gen Zers are eager to express their thoughts and ideas about the products in real-time engagement and appreciate discovering new things online (Vieira, Frade, Ascenso, Prates, and Martinho, 2020). Hence, Gen Z has expressed concern for environmental conservation. For example, millions of Generation Z members from over 150 countries around the world marched to pressure decision-makers and governments to help save the planet (Borah, Dogbe, and Marwa, 2024). Generation Z buyers are increasingly conscious of the environmental impact of their purchases, which contributes to their desire for natural, organic, and eco-friendly items (Filip, Stancu, Onișor, Mogoș, Catană, and Goldbach, 2025).

According to Mitchell (2023), it indicates that Gen Z is more inclined than previous generations to take environmental responsibility, ethical production, and ingredient transparency into account when making skincare product purchases. Recent studies by Sertori, Bagatini, and Perin (2023) stated that Gen Z's desire to select sustainable products is strengthened by their growing association of green skincare with both individual health advantages and wider ecological well-being. Additionally, Gen Z's high involvement with beauty-related content on social media enables them to readily obtain product evaluations, evaluate sustainability promises, and make informed opinions regarding green skincare solutions (Sun and Xing, 2022). Global

beauty trends, peer recommendations, and digital influencers that regularly advocate for eco-friendly skincare products also have an impact on their purchasing decisions (Kaur and Chandra, 2025).

The growing demand for green skincare in Malaysia is largely driven by Generation Z, the group most inclined to embrace sustainable beauty practices. Their tech-savvy behaviour, strong environmental ideals, and purchasing power make them a perfect population to study what influences consumers' intentions to buy green skincare products. As a result, this study focuses on Generation Z to better understand the major elements that influence their propensity to buy green skincare products.

1.3 Research Problem

According to Suphasomboon and Vassanadumrongdee (2022), environmentally friendly products are becoming increasingly popular as a result of health trends toward green consumption patterns and increased knowledge of the environmental impact, particularly among young customers. South-east Asian customers are increasingly concerned about how their purchases affect the environment (Maduwinarti, Maruta, and Mahendra, 2025). Hazeera (2024) found that 93% of ASEAN consumers consider sustainability in their purchasing decisions, and 59% would choose a sustainable brand if all other factors were equal. This highlights the importance of social and environmental responsibility in shaping purchasing behaviour. According to Phung (2025), 91% of Malaysians reported they would be willing to purchase sustainable goods, indicating a strong inclination towards socially and environmentally responsible products. Moreover, the government's initiative, environmental knowledge, and environmental attitude are the determinants that influence Malaysian customers' intentions to make green purchases on green products (Taib, Nordin, Yazid, Daud, and Hisham, 2022). Social influence is crucial in influencing consumers' aspirations to make eco-friendly choices (Caniëls, Lambrechts, Platje, Motylska-Kuźma, and Fortuński, 2021). This is because members of social groups typically share similar beliefs, preferences,

and behaviours, which can promote environmentally friendly conduct (Rehman and Dost, 2013). As a result, without sufficient environmental knowledge, green products such as skin care will not be promoted, and the issue will continue to be a problem worldwide.

Purchase intention implies the possibility that customers intend to indulge in a purchasing behaviour (Wang, Liu, Zhu, Wang, Wang, and Zhao, 2023). In the context of Malaysia's booming green skincare industry, it is critical to comprehend the components that impact purchase intention due to rising brand competition and shifting consumer expectations around sustainability and ingredient transparency. However, obstacles such as imprecise sustainability claims, variable product quality, limited ingredient transparency, greater pricing, and a lack of environmental understanding frequently impede purchase intention (Kahraman and Kazançoğlu, 2019; Zhuang, Luo, and Riaz, 2021; Yu, 2023). These problems underscore the significance of important behavioural aspects such as price, environmental knowledge, attitude toward green products, subjective norms, and perceived behavioural control in determining Generation Z's intentions when purchasing green skincare products. Thus, addressing these gaps is critical for boosting Generation Z's intention to use green skincare products. This study intends to analyse how these major aspects influence their purchasing decisions, giving valuable insights for encouraging sustainable skincare consumption in Malaysia.

Customers' desire to use eco-friendly skincare products is greatly influenced by their attitude, which is a reflection of how they feel about eco-friendly products in general (Yadav and Pathak, 2017). However, customers may have unfavourable opinions of green cosmetics when they face multiple obstacles, such as usage, value, danger, tradition, and image (Zahan, Kaium, and Rahman, 2024). Customers are likely to steer away from green cosmetics compared to standard cosmetics and propagate unfavourable word-of-mouth (WOM) due to the aforementioned restrictions (Zahan et al., 2024). Therefore, it is critical to further research how attitude affects Generation Z choice-making, particularly in Malaysia's quickly increasing eco beauty sector. Understanding its role can provide deeper insights into the psychological acceptability of eco-friendly skincare and help to build

communication tactics that foster more positive attitudes toward green skincare usage.

Next, Generation Z's inclination to buy green skincare products is greatly influenced by subjective norms, which represent the social pressure people experience to engage in or refrain from a particular action (Ajzen, 1991, as cited in Jakubowska, Dąbrowska, Pacholek, and Sady, 2024). Gen Z uses online forums, influencers, and user-generated content (UGC) to confirm product claims and authenticity (Sagar et al., 2025). They also strongly rely on their social circles and digital networks to authenticate their green skincare selections. However, Gen Z's initiative to choose green skincare solutions may be weakened by contradictory or inconsistent social messaging, such as peers favouring conventional skincare companies (Firdausi, Rahma, and Afriani, 2023), skepticism regarding claims of green beauty (Testa, Iraldo, Vaccari, and Ferrari, 2013), or a lack of social reinforcement (Kolar, Haynos, Wang, Lask, Murray, Voderholzer, and Gorrell, 2024). These issues could lessen their perception of societal pressure to use eco-friendly skincare products, which could lead to reluctance or a lower inclination to buy. Thus, it is crucial to investigate further how Gen Z's decision-making in Malaysia's growing green skincare sector is influenced by subjective norms. Developing communication methods that bolster positive social influence and promote broader adoption of sustainable skincare products can be facilitated by an understanding of the power of social approbation.

Furthermore, perceived behavioural control (PBC), a measure of people's confidence in their ability to carry out an activity and overcome problems, has a substantial influence on Gen Z's purchase intention for green skincare products (Ajzen, 1991). PBC in the context of green beauty is influenced by elements like price, product availability, information clarity, accessibility to green skincare, and confidence in assessing sustainability promises (Nejadrezaei, Henschion, and O'Neill, 2024). Even if individuals have good intentions, these obstacles may discourage them from selecting eco-friendly skincare products due to a sense of inconvenience and low self-efficacy. Moreover, functional barriers also include usage barriers, value barriers with subcategories of perceived cost-value and

perceived product efficacy, and risk barriers with subcategories of perceived price, perceived absence of environmental impact, and negative experience barriers (Szaban, Szymkowiak, and Chwialkowska, 2025). Therefore, analysing perceived behavioural control is essential to comprehending how Gen Z's adoption of green skincare is influenced by both internal capacity beliefs and external restrictions.

Moreover, price is a major factor in influencing purchase intentions (Levrini and Santos, 2021). However, maintaining inexpensive pricing in the green skincare sector is a huge problem, especially since firms incur increased costs for natural formulas, eco-friendly packaging, and ethical sourcing procedures (Riaz, 2025). This frequently results in considerably increased product pricing, which may deter Generation Z consumers and distract them from their desire to use green skincare products (Hsu, Chang, and Yansritakul, 2017; Daud and Hee, 2021; Lavuri, 2022; Testa, Vella, Rizzo, Schifani, and Migliore, 2024). Therefore, addressing pricing difficulties in the green skincare industry is critical to ensuring that sustainable products remain appealing and affordable to Generation Z customers. As price has a huge impact on Gen Z's desire to use environmentally friendly skincare, understanding how pricing affects their purchasing intention is crucial. Furthermore, researching the significance of pricing in the context of green skincare in Malaysia provides greater insights into its impact on Generation Zers' purchase intention and enables the creation of strategies that balance affordability and sustainability.

Finally, consumers' comprehension of sustainability, product ingredients, and the ecological impact of their decisions is all reflected in environmental knowledge (Sinha and Annamdevula, 2023), which has an immediate impact on Generation Z's propensity to buy eco-friendly products, including green skin care products (Lius and Salim, 2024). However, many Gen Z consumers still have little or incorrect knowledge about green skincare, despite the growing interest in eco-friendly products. For example, misinterpreting ingredient labels, overestimating the efficacy of natural products, or failing to distinguish between real eco-friendly claims and greenwashing (Testa et al., 2024). In addition, if consumers lack awareness about green products, there may be a disconnect between their attitudes and actions (Wang, Ma, and Bai, 2019). In order to improve consumers'

environmental knowledge and boost their confidence when choosing green skincare products, green skincare brands must prioritize education efforts by offering clear ingredient information, reliable sustainability certifications, and open communication.

In conclusion, despite the rising demand for eco-friendly skincare products in Malaysia, limited research has been conducted on the variables influencing Generation Z's propensity to use green skincare products (Hoo, Lean, Ng, Liao, Ho, and Prompanyo, 2024; Sevam, Tan, and Mangkau, 2025). Understanding how important factors like attitude, subjective norms, perceived behavioural control, price, and environmental knowledge influence their sustainable consumption behaviour is hampered by this gap. In order to overcome this gap, this study looks at these variables and provides information that can help Malaysian Generation Z consumers adopt green skincare products.

1.4 Research Questions

Research questions are established to investigate the relationship between the drivers of Malaysian Generation Z towards purchase intention in green skin care products.

The subsequent five are the research questions to be addressed:

1. Is there a relationship between attitude and purchase intention of Generation Z in green skin care products?
2. Is there a relationship between subjective norms and purchase intention of Generation Z in green skin care products?
3. Is there a relationship between perceived behavioural control and purchase intention of Generation Z in green skin care products?
4. Is there a relationship between price and purchase intention of Generation Z in green skin care products?
5. Is there a relationship between environmental knowledge and purchase intention of Generation Z in green skin care products?

1.5 Research Objectives

The motive of this research is to investigate the relationship between independent and dependent variables, providing insights into the drivers of Malaysian Generation Z towards purchase intention in green skin care products.

The following five are the research objectives to be achieved:

1. To examine the relationship between attitude and purchase intention of Generation Z in green skin care products.
2. To examine the relationship between subjective norms and purchase intention of Generation Z in green skin care products.
3. To examine the relationship between perceived behavioural control and purchase intention of Generation Z in green skin care products.

4. To examine the relationship between price and purchase intention of Generation Z in green skin care products.
5. To examine the relationship between environmental knowledge and purchase intention of Generation Z in green skin care products.

1.6 Research Significance

This study offers significant insights into how Generation Z's propensity to buy green skincare products is influenced by important behavioural characteristics, including attitude, subjective norms, perceived behavioural control, price, and environmental knowledge. Knowing how these elements interplay enables younger consumers to make more deliberate and knowledgeable selections as they search for goods that promote both personal well-being and environmental responsibility. Prior studies by Amoako, Dzogbenuku, and Abubakari (2020) have claimed that green purchase intention is substantially predicted by environmental knowledge and positive sentiments. These factors offer a strong explanation for eco-driven consumption when combined with perceived behavioural control and social influence (Eunike, Silalahi, Phuong, and Tedjakusuma, 2025).

For marketers and practitioners in Malaysia's growing green beauty industry, this study provides practical, data-driven insights into Generation Z's behavioural motivations, a cohort noted for its digital involvement and sustainability-driven choices. Marketers may better match their branding, pricing, and communication strategies with Gen Z values by understanding how the independent variables of this research impact purchase intention. The findings also highlight the need for a clear sustainability message, reputable eco-labels, and social media involvement (Chen and Madni, 2023). Ultimately, the study offers a strategic framework that green skincare firms can use to create trust, increase brand loyalty, and strengthen their competitive edge in an increasingly congested industry (Singh and Singhal, 2022).

Lastly, the study is significant for policymakers and sustainability advocates because it demonstrates how attitude, subjective norms, perceived behavioural control, price, and environmental knowledge influence sustainable consumption among Malaysian youngsters. These findings can inform the establishment of legislation governing eco-labelling, ingredient transparency, and green marketing claims, thereby reducing greenwashing and strengthening consumer protection. Furthermore, the findings can help promote national environmental education activities targeted at instilling long-term sustainable consumption patterns in future generations. The study's evidence-based suggestions contribute to broader governmental initiatives to promote environmental responsibility and boost Malaysia's standing in the regional sustainable beauty industry.

1.7 Conclusion

An overview of the research on the factors influencing Generation Z's intention to buy eco-friendly skincare products was provided in Chapter 1. The background emphasized rising environmental concerns and increased demand for eco-friendly skincare, notably in Malaysia. The research problem revealed a vacuum in knowing how specific behavioural and contextual elements, such as attitude, subjective norms, and perceived behavioural control, price, and environmental knowledge influence Gen Z purchasing decisions. Corresponding research questions and objectives were developed to lead the investigation. The chapter wrapped up by emphasizing the necessity of researching this problem for consumers, marketers, and policymakers, highlighting Generation Z's role in developing green skincare use.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

The core theory underpinning the research is presented in this section, along with an analysis of the relationships between the variables. To evaluate and test the correlations between the variables, a conceptual framework and hypothesis will also be created.

2.1 Underlying Theory

2.1.1 Extended Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB), created by social psychologist Icek Ajzen, proposed that an individual's intention usually shapes their behaviour (Ajzen, 1991). According to the theory, the most direct predictor of a behaviour is an individual's intention to engage in it (Wei, Prasetyo, Belmonte, Cahigas, Nadlifatin, and Gumasing, 2025). Attitude, subjective norm, and perceived behavioural control have generally been considered independent predictors of intention in research utilizing the theory of planned behaviour (Barbera and Ajzen, 2020). The theory also emphasizes that people use their attitudes, subjective norms, and perceived behavioural control to make logical decisions (Ajzen, 1991, as cited in Shanbhag, Pai, Kidiyoor, and Prabhu, 2023). TPB theory is widely used in marketing and consumer behaviour research to understand how consumers select goods and services to buy (Onel, 2016). For example, TPB was used to investigate consumer behaviour when purchasing green items or products (Yuan, Rasiah, Hou, and Li, 2023).

Attitude refers to a person's positive or negative judgment of the activity in question (Ranjbarian, Rehman, and Lari, 2014). Additionally, the perceived

social pressure to engage in or refrain from engaging in a behaviour is known as subjective norms (Sentosa and Mat, 2012). On the other hand, a subjective level of control over a behavior's execution is referred to as perceived behavioural control (Yang and Zhou, 2011). TPB has been extensively used by researchers in studies on sustainable consumption, including green purchasing (Awuni, Du, and Yiranbon, 2016; Yadav and Pathak, 2017; Emekci, 2019; Liu, Liu, and Mo, 2020), organic personal care (Kim and Chung, 2011; Delistavrou, Papaioannou, and Assimakopoulos, 2022), and green cosmetics (Meliniasari and Mas'od, 2024; Upadhyaya and Sijoria, 2024; Koay and Ahmed, 2025). As a result, the TPB serves as the primary model in this study to analyse Generation Z's purchase intention in green skin care products.

However, the factors influencing customers' intention to purchase green skin care products may not be adequately captured by the TPB model. This is because it frequently overlooks the subtleties of the attitude-behaviour gap as well as a variety of contextual and external influences (Joshi and Rahman, 2015). In contrast to other behavioural theories, the TPB is a versatile model that permits the addition of new variables, boosting the percentage of variation explained and enabling generalization to different situations (Rajeh, 2022). The extended TPB model has been used in many studies, including sustainable apparel (Kumar and Mohan, 2021; Brandão and Costa, 2021; Minbale, Bizuneh, Seife, Mekonnen, Asfaw, Sharew, and Getachew, 2024), green hotel (Han and Kim, 2010; Wu and Teng, 2011; Chen and Tung, 2014), green food (Qi and Ploeger, 2019; Alam, Ahmad, Ho, Omar, and Lin, 2020; Li and Shan, 2025), and sustainable tourism or eco-tourism (Hassan, Das, and Quader, 2021; Sujood, Siddiqui, Bano, and Hamid, 2022). Additionally, additional variables were added to the model by various researchers, either independently or in accordance with other ideas. The extra variables included price (Dorce, da Silva, Mauad, de Faria Domingues, and Borges, 2021; Pamidimukkala, Kermanshachi, Rosenberger, and Hladik, 2025) and environmental knowledge (Maichum, Parichatnon, and Peng,

2016; Rakhmawati, Damayanti, Jati, and Astrini, 2023; Tavitiyaman, Zhang, and Chan, 2024).

In order to better explain Generation Z's purchasing intention toward green skincare products, this study builds on earlier research that extended TPB by including pricing and environmental knowledge as new factors. Price is one of the major predictors of consumer preference (Ng and Fernandez, 2025). Due to the expense of natural ingredients, ethical sourcing, sustainable packaging, and certifications, sustainable goods frequently fetch higher prices, especially in green personal or skin care products (Goel, Gujral, Jaiswal, and Yadav, 2025). Similarly, environmental knowledge is crucial for influencing consumers' opinions of a product's legitimacy and lowering their suspicion of greenwashing, enabling them to choose eco-friendly skincare products with greater knowledge (Goh and Balaji, 2016; Li, 2025). By taking into account the financial and knowledge-based limitations that specifically impact sustainable consumption among younger demographics, these two factors improve the TPB model's explanatory power. Thus, a more thorough framework for comprehending Generation Z's intention to buy green skincare goods in Malaysia is provided by the incorporation of price and environmental knowledge into TPB.

By adding price and environmental knowledge as further factors influencing Generation Z's propensity to buy green skincare products, this study seeks to expand the Theory of Planned Behavior (TPB). Sustainable consumption has shown that including context-specific elements can significantly boost the model's explanatory power, despite TPB's normal emphasis on attitude, subjective norms, and perceived behavioral control (Neves, Oliveira, and Santini, 2025). In the context of green skincare, financial reasons and consumers' comprehension of environmental issues are widely recognized as key elements affecting sustainable purchasing behavior. Hence, in order to better precisely forecast Generation Z's intentions to buy green skincare products in Malaysia, the extended TPB model employed in this study combines price and environmental knowledge with the original TPB

structures. The model's predictive value in the green beauty industry is increased by incorporating these added variables, which capture both knowledge-driven and economic factors.

2.2 Review of Variables

2.2.1 Purchase Intention

The research conducted by Mirabi, Akbariyeh, and Tahmasebifard (2015) mentioned that purchase intention is the propensity of consumers to buy products or services to meet needs or fulfil goals, and it is modified by various elements or situations that affect the experiences of customers. It also refers to the consumer's inclination to purchase the good or service, or the consumer's decision to buy the goods after review (Younus, Rasheed, and Zia, 2015). Many factors influence consumers' intentions while they are choosing things, and their decisions are based on their intention to buy the products (Keller, 2001). Furthermore, the desire, diligence, and intention of customers to purchase items are considered in the TPB model (Varah, Mahongnao, Pani, and Khamrang, 2021). Information about the products that other customers have used or are currently using will also influence whether or not they decide to buy (Witt, 1969). Customer intentions show the likelihood that they will act in a particular way in the near future (Taylor and Todd, 1995). The expression "a person's conscious plan to attempt to buy goods" is used to characterize customers' purchase intentions (Spears and Singh, 2004). In this study, purchase intention refers propensity and willingness to buy products or services based on their own appraisal and readiness to make a subsequent purchase.

Purchase intention is important because it indicates how consumers' attitudes, beliefs, and external variables influence their purchasing decisions (Chu, 2018). Understanding purchase intention is particularly crucial in the case of green skincare since there is frequently a visible discrepancy

between consumers' favorable environmental beliefs and their actual purchasing behaviour (Chu, 2020). The intention-behaviour gap is especially noticeable among younger consumers, who might claim they favor eco-friendly skincare but neglect to follow through because of perceived obstacles like high cost, restricted accessibility, or deeply rooted consumption patterns (Vironika and Maulida, 2025). Intentions and behaviours are similar when the behaviour's physical characteristics match the intention (Albarracin, Sunderrajan, McCulloch, and Jones, 2020). Therefore, studying Generation Z's purchase intentions is crucial to understanding the contextual and psychological factors that shape their propensity to choose eco-friendly skincare products. As the fastest-growing consumer segment in the sustainability market, Gen Z's buying intentions not only influence current market trends but also shape the future development of the green beauty sector. For instance, An and Ngo (2025) claimed that the natural cosmetics market in Vietnam is rapidly expanding, especially among Generation Z consumers who emphasize sustainability and eco-friendly products. As a result of a regional movement toward sustainable beauty consumption, Gen Z consumers exhibit the largest desire for natural, organic, and ecologically conscious skincare (Moberly, Rapadas, Nordquist, Swaans, and Paustian, 2024).

Numerous studies have used purchase intention as a variable that is dependent to investigate its causes and consequences. Buying intention will have a beneficial effect on attitudes, subjective norms, and perceived behavioural control as demonstrated by various researchers (Maichum et al., 2016; Noor, Nooranee, Zakaria, Unin, and Suaee, 2020). Moreover, several industries are identified where the researcher used purchase intention as a dependent variable, including E-commerce (Abbasi, 2021), Retail or Hypermarket (Lu, Sha'ari, Annamalai, Norazmi, Hizani, and Tan, 2021), Fast Food (Xiao, Yang, and Iqbal, 2018), Tourism (Asadi Zarch, Makian, and Najjarzadeh, 2023). Thus, these studies demonstrate that purchase intention is a dependent variable for comprehending consumer decision-

making across varied sectors, giving valuable information for both academic research and practical marketing strategies.

As a result, purchase intention is an important predictor of consumer behaviour, as it reflects how attitudes, beliefs, and external circumstances impact purchasing decisions. Understanding purchase intention is especially essential for green skincare because it explains the disconnect between environmental knowledge and actual shopping behaviour. Understanding Generation Z's aspirations sheds light on emerging trends and supports measures to promote sustainable consumption.

2.2.2 Attitude

Attitude is an individual's personal appraisal of a certain object or conduct (Fishbein and Ajzen, 2000). It shows if a person has positive or negative feelings about engaging in an action (Montano and Kasprzyk, 2015) and represents their thoughts, feelings, and preferences toward aspects of their surroundings (Pardana, Abdullah, Mahmuda, Malik, Pratiwi, Dja'wa, Abdullah, Hardin, and Hamid, 2019). Positive attitudes inspire consumers to engage in buying behaviors (Hill and Lynchehaun, 2002), but negative attitudes limit such motivation (Kufaine, 2024). Attitudes are shaped by the perceived outcomes of an activity and how desirable individuals regard those outcomes (Salim, Aprianto, Anwar Abu Bakar, and Rusdi, 2022). As a result, they result from an individual's perceptions of the traits and outcomes of engaging in the conduct (Kufaine, 2024). In this study, attitude refers to consumers' overall appraisal of the products, which includes their ideas about the benefits as well as the emotional and cognitive responses that influence their likelihood of purchasing such goods.

Attitudes are important in affecting consumer behavior because they influence how people evaluate possibilities and make decisions. Moreover, Dirwan and Latief (2023) stressed that emotions play a significant role in

shaping consumer preferences, attitudes, and choices. It influences consumers' perception, judgment, and emotional bond with companies or products (Gurunathan, 2025). A favorable attitude can increase loyalty to a brand and repeat purchases (Clootrack, 2025). In the context of green skincare, attitude is especially significant since it impacts customers' receptivity to sustainable methods and readiness to explore new eco-friendly solutions (Yusiana, Hurriyati, and Widjadjanta, 2025). Moreover, attitudes can influence how consumers react to marketing efforts, product information, and peer recommendations, making it a crucial factor in understanding purchase behavior in the marketplace (Aoki and Matsui, 2025).

Past research reveals that attitude determines not only purchase intention but also other crucial customer outcomes. For example, good attitudes toward a brand have been demonstrated to promote brand loyalty and strengthen the satisfaction–loyalty relationship (Suh and Yi, 2006). In online retail situations, good consumer sentiments also boost the chance of repeat purchases and repurchase behavior (Anshu, Gaur, and Singh, 2022). Moreover, Putera and Famiola (2024) demonstrated that favorable consumer attitudes, indicated in attitudinal loyalty, significantly boost customer advocacy and cross-buying behavior, suggesting that attitude promotes long-term consumer engagement beyond immediate purchase decisions.

Hence, attitude is critical in understanding Generation Z's purchase intention for green skincare products because positive evaluations of eco-friendly attributes increase openness to sustainable options, strengthen emotional connections with green brands, and influence decision-making by determining how customers perceive product information, marketing messages, and peer recommendations.

2.2.3 Subjective Norms

The normative guidance or perceived social pressure that a person receives from important relevant individuals, such as family, friends, and peers, to engage in or refrain from engaging in a behaviour is referred to as a subjective norm; however, due to its subjectivity, this influence may differ among consumers (Ajzen, 1991; Paul et al., 2016, as cited in Shimul, Cheah, and Khan, 2021). Individuals who understand their required actions are more likely to have a positive attitude (Dong, Ji, Zhou, and Zhang, 2022). When consumers are uncertain about the effects of a specific activity, they may seek support from others (Wratt, 1999, as cited in Sreen, Purbey, and Sadarangani, 2018). Leila, Atefeh, Masoud, and Yousef (2024) have identified two forms of subjective norms: injunctive norms and descriptive norms. Injunctive norms are what others want us to do or stop doing (Warner, Cantrell, and Diaz, 2022). However, descriptive norm refers to knowing how others' behaviour influences your own (Bergquist and Nilsson, 2019). Besides, the impact of subjective norms is particularly potent since green skincare products are typically connected with goals such as wellness and sustainability of the environment, which are extensively discussed and reaffirmed within social circles (Joy, Sherry, Venkatesh, Wang, and Chan, 2012, as cited in Minocha and Singh, 2024). Subjective norms in this study allude to how much consumers' decisions to buy products are impacted by the expectations, suggestions, and actions of important others, including friends, family, and social media communities.

Subjective norms play a crucial part in molding consumer decision-making since consumers often seek assistance when formulating judgments or buying items (Ling, Phang, and Salleh, 2024). Azjen (1991) stressed that social expectations produce pressure that directly affects behavioural motives, especially when the action is new or entails uncertainty. In the context of sustainable consumerism, social influence becomes even more crucial, since consumers prefer to rely on peers, family members, and

colleagues to support their decisions (Salazar, Oerlemans, and van Stroe-Biezen, 2012).

For green skincare products, subjective norms are particularly pertinent as sustainability is typically viewed as a socially endorsed and morally desired behaviour (Kim and Chung, 2011). When environmentally friendly choices are reinforced in an individual's social context, customers have a greater desire to meet these expectations, boosting their chances of selecting green skincare alternatives. As a result, subjective norms serve as a significant social mechanism for shaping long-term purchase habits among Generation Z.

Previous research regularly demonstrates the significant impact of subjective norms on people's assessments and behavioural tendencies across a variety of industries. Subjective norms affect brand trust and repurchase intentions in Thailand's consumer life insurance market (Chitranapawong and Chirapanda, 2025). In addition, Izquierdo-Yusta, Martínez-Ruiz, and Pérez-Villarreal (2022) also mentioned that subjective norms have a favorable and considerable impact on brand love and behavioural loyalty. On the other hand, in the e-commerce sector, subjective norms had a positive relationship with internet shopping behaviour (Othman and Sudarmin, 2022). Collectively, this research indicates that subjective norms act as a robust driver of intention across varied industries, emphasizing the significance of social pressure and acceptance in directing sustainable consumer decision-making.

Thus, subjective norms are critical, since the approval and expectations expressed by peers, relatives, and social circles profoundly impact how Generation Z views natural skincare products and motivates them to opt for sustainable options, making subjective norms a key variable driving their purchase intention.

2.2.4 Perceived Behavioural Control

Past research by Hagger, Cheung, Ajzen, and Hamilton (2022) stressed that perceived behavioural control (PBC) refers to an individual's perception of how easy or difficult it is to conduct a specific behaviour. Another study by Ghazali, Soon, Mutum, and Nguyen (2017) defined perceived behavioural control as the notion that people have the resources, abilities, and opportunities to execute specific activities. Individuals with more self-control tend to have a higher intention to engage in a given conduct (Ajzen, 1991). In contrast, PBC is the result of the relationship between control beliefs and perceived power (Ertz, Favier, Robinot, and Sun, 2021). In the context of sustainable consumption, when consumers think that they have adequate means and possibilities, their perceived behavioural control rises, boosting the possibility of choosing green skincare products (Sung and Wang, 2020; Veronica and Lady, 2023). In this research, perceived behavioural control relates to consumers' perceptions of their capacity, resources, and chances to purchase products, particularly whether they feel capable and confident doing so.

Perceived behavioural control is a critical component of consumer decision-making, since it reflects an individual's evaluation of how easy or difficult it is to conduct a specific behaviour (Li, Dai, Zhu, Li, He, Huang, Liu, and Shen, 2023). According to Borges-Tiago, Almeida, Gomes, and Moreira (2024), it states that when consumers believe they have the requisite resources, information, and opportunities to act, their sense of control grows, which strengthens their intention to engage in that behaviour. In sustainable consumption situations, perceived behavioural control becomes particularly important since customers may perceive green items as more expensive and less accessible (Ogiemwonyi, 2024). When these barriers are lowered, such as through cost, product availability, or more acquaintance with eco-friendly materials, individuals will experience higher PBC, increasing their likelihood of choosing green solutions. For example, limited product availability is a major obstacle stopping people from choosing sustainable

items. When sustainable solutions are more readily accessible, consumers view the action as easier to conduct, which enhances their perceived behavioural control (Gleim and Lawson, 2014, as cited in Ghaffar and Islam, 2023). Therefore, PBC plays a significant role in changing Gen Z's buying intention toward green skincare by empowering them to act on their environmental ideals and removing perceived hurdles to sustainable options.

Prior studies across numerous industries continuously indicate the major importance of perceived behavioural control in determining consumer attitudes and behavioural intentions. For instance, Cao, Zheng, and Li (2023) found that PBC has emerged as a significant driver of consumers' buying behaviour of organic food. Similarly, Green's confidence in ecologically friendly FMCG product packaging is positively and significantly impacted by perceived behavioural control (Khoiriah and Imaningsih, 2025). In environmental behaviour, research of customers in Klang Valley revealed that PBC has substantially predicted real zero-waste behaviour (Mustafa, Arif, and Bakar, 2023). In addition, in the green appliances industry, both behavioural intention and actual behaviour are positively correlated with PBC (Dilotsotlhe and Inseng, 2020). Overall, the findings show that PBC is an effective predictor of both intentions and actions across a wide range of consumer industries.

Therefore, perceived behavioural control consistently affects both intention and action across many industries. In the context of green skincare, Generation Z customers with higher PBC, with more resources, understanding, and availability, are more likely to make ecological buying selections. Thus, PBC is a main factor motivating their intention to purchase green skincare products.

2.2.5 Price

A product's pricing, which is established through agreements between buyers and sellers, has a substantial impact on its revenue and profitability (Zhao, Yao, Liu, and Yang, 2021). According to Kotler (2004, as cited in Abdul Rahim, Goh, and Cheah, 2019), price is the sum of money that customers would pay for a good or service. Price serves as a tool to inform consumers of the products' worth (Abdul Rahim et al., 2019). It is also treated as one of the most critical elements influencing how customers view things on the market (Levrini and Santos, 2021). Pricing is a real indicator that people consider in making purchases (Beneke and Zimmerman, 2014). Besides, price is not necessarily viewed negatively by consumers as a sign of financial costs; rather, it is a complicated factor in the choice to buy (Kara, Rojas-Méndez, Kucukemiroglu, and Harcar, 2009). In this study, price refers to consumers' perceptions of the cost and affordability of the products, as well as their assessment of whether the price is fair, reasonable, and reflects the product's worth.

In the context of green skin care products, consumers may have worries about buying green products because they assume that the products have a worse quality or a higher price (Qomariah and Prabawani, 2020). The consumer's interest in purchasing the goods will be impacted if it is pricey (Nik Mud, Hairani, Zakaria, Kamaruddin, and Hasan, 2020). Thus, pricing is significant as it affects consumer spending on products and services, with customers constantly looking for fair prices (Rani and Krishnan, 2018). Price may impact the good's value, the perceived quality of the good, and the decision between multiple options in terms of customers (Akdogan, 2021). Some purchasers refuse to go above a certain price point because they assume that higher prices equal higher quality (Pauwels, Srinivasan, Franses, 2007). Furthermore, customers weigh perceived benefits against price, which can increase customer happiness and promote brand loyalty (Nik Mud et al., 2020). Hence, consumers will purchase green skin care products if the price is affordable.

A prior study by Pratama and Suprpto (2017) has noted that price has a beneficial effect on brand loyalty. This is because the belief of brand is already reputable and trustworthy. Moreover, Indajang, Candra, Sianipar, Sembiring, and Simatupang (2023) highlighted that competitive pricing, and the perceived value of the product have a significant impact on consumer happiness. This implies that customer satisfaction rises as product prices become more competitive (Warni, Sari, and Ambarwati, 2025). Next, a competitive price has a significant impact on impulse buying (Susanti, 2022). This is because reduced costs, particularly through discounts, give the impression that a purchase is a "win," evoking feelings of joy and achievement (Utama, Hariningsih, Mustikasari, Wardana, and Wibowo, 2025). According to marketing studies, consumer perceptions are strongly affected by pricing (Zeithaml, 1988). It is because higher or fair prices are frequently seen by customers as signs of superior quality and increased product value.

In consequence, price influences consumer perceptions, purchasing decisions, and satisfaction. When evaluating products, consumers evaluate fairness and worth in addition to pricing. Competitive and appropriate pricing can increase brand loyalty, drive sales, and favorably affect customer behaviour, such as the selection of green skincare products.

2.2.6 Environmental Knowledge

A person's ecological understanding concerning environmental issues is referred to as environmental knowledge (Chen, 2013). This promotes understanding of the roles and issues of ecosystems, citizen behaviour alternatives, and the attainment of greater ecological benefits (Amelia, 2024). Additionally, environmental knowledge increases awareness of environmental problems, causes, effects, and possible solutions that may result in behavioural shifts and the implementation of pro-environmental actions (Galván-Mendoza, González-Rosales, Leyva-Hernández, Arango-Ramírez, and Velasco-Aulcy, 2022). Juliana (2021) claimed that an individual's comprehension of the environment has a significant impact on their decision-making process. Customers will become more conscious of environmental issues and may even have a favorable opinion of eco-friendly products (Isbahi, Pertiwi, and Purwanto, 2024). In this study, environmental knowledge refers to how well consumers comprehend environmental challenges, eco-friendly concepts, and the environmental benefits of the products, which influences their appraisal and adoption of sustainable alternatives.

Understanding eco-friendly products, or "green knowledge," is crucial for building consumer trust and winning their business (Maharani, 2022). Individuals with environmental expertise tend to be more concerned and sensitive to environmental destruction, indicating a lack of care and love for the environment (Candrianto, Aimon, and Sentosa, 2023). Thus, environmental awareness and knowledge are crucial for preventing environmental concerns (Candrianto et al., 2023). However, people with greater long-term ecological consciousness are more likely to be more willing to buy eco-friendly goods and devote a greater portion of their budget to sustainable goods, particularly green skin care items (Farukh, Ansari, Raza, Wu, and Wang, 2022). Greater levels of green knowledge boost consumers' confidence in environmentally friendly goods, making them more motivated to select green skincare options.

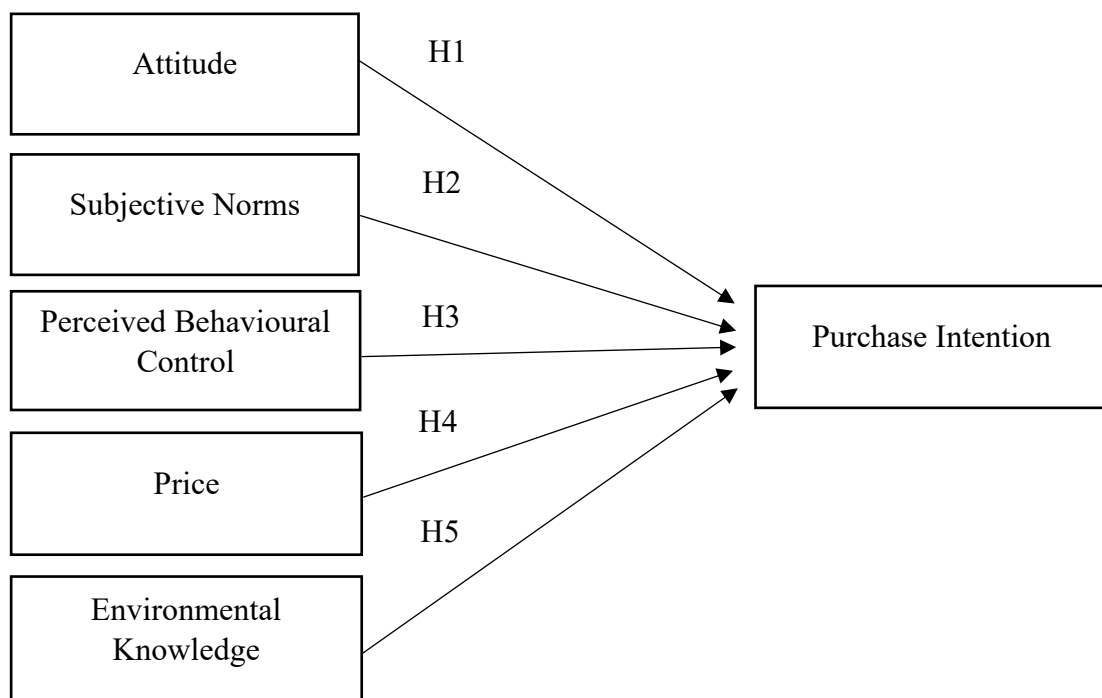
Environmental knowledge has been studied in various sectors. According to past studies by Flores and Jansson (2021, as cited in Teh, Simsekoglu, and Kummeneje, 2025), a Swedish Danish study indicated that the green impression of SMSs was positively impacted by environmental expertise. Next, past studies by Kim and Lee (2023) mentioned that consumers' environmental knowledge positively impacts their attitudes towards eco-labelled personal care goods, resulting in higher purchase intentions. Moreover, the research by Lin and Yang (2022), which investigates the impacts of low-carbon knowledge, enriches our understanding of how knowledge shapes consumer behaviour towards green products. Their findings highlight the necessity for focused and easily accessible environmental information by illuminating the intricate interaction between various forms of knowledge and low-carbon behaviour.

Consequently, environmental knowledge has a significant impact on consumers' awareness, attitudes, and behaviours regarding sustainable products. A better grasp of environmental challenges and eco-friendly methods boosts confidence and enthusiasm to use green items. As a result, spreading knowledge about sustainability is critical for encouraging the use of sustainable alternatives, such as green skincare products.

2.3 Proposed Conceptual Framework

In light of a study of theories and past literature, a conceptual framework (Figure 2.1) is provided to investigate the elements that influence Generation Z's purchasing intentions for green skin care products. The framework includes three key components of the Theory of Planned Behaviour (TPB): attitude, subjective norms, and perceived behavioural control. In addition, price and environmental knowledge are included as extended constructs to fill gaps in earlier research and better explain consumer decision-making in the context of sustainable beauty goods. This conceptual framework will help identify the important variables influencing Generation Z's inclination to buy green skin care products. Similarly, the researchers will generate hypotheses based on the relationships indicated in this framework.

Figure 2.1: The Proposed Conceptual Framework



Source: Developed for the research.

2.4 Hypotheses Development

2.4.1 The Relationship between Attitude and Purchase Intention

Studies show that attitude has a big impact on buying intention. A study by Kosnin, Hilmi, Norizan, Chandramoorthy, and Abidin (2024) on women consumers in Malaysia indicated that a good attitude toward organic beauty products greatly boosted their intention to acquire them. The study revealed that when customers see organic beauty items as safe, useful, and trustworthy, their positive judgment immediately boosts their inclination to acquire these products.

According to quantitative research by Texeira, Oliveira, Texeira, and Texeira (2023), it was noted that attitudes have a significant influence on consumers' intentions to purchase sustainable beauty items. It also revealed that customers who form positive views regarding green cosmetics due to appealing and trustworthy online communications exhibit a much higher desire to purchase them. The study emphasized that consumers' positive perceptions of green cosmetics as safe, effective, and ecologically friendly immediately increase their propensity to select these sustainable substitutes.

Similarly, Nordin and Noriman (2021) revealed that positive attitudes of Malaysian domestic beauty brands significantly boosted customers' intentions to buy these goods. Their study indicated that when customers regard local beauty brands as credible, appealing, and linked with their personal beliefs, they are more inclined to create good buy intentions. This underlines the necessity of developing good consumer sentiments through branding, product quality, and value alignment in order to enhance acceptability and drive stronger purchasing decisions.

However, a study on the purchase of organic food using the Statistical Package for Social Sciences (SPSS) found no relationship between buy

intention and attitude among male consumers (Bazhan, Sabet, and Borumandnia, 2024). The study emphasized that even when consumers have positive opinions about organic products, their desire to buy may be more strongly influenced by other elements, including societal norms, perceived behavioral control, or product knowledge. Another study by Charton-Vachet, Lombart, and Louis (2020), which surveyed 398 respondents, revealed that buyers' attitudes toward a region did not directly influence their propensity to purchase regional items. The study showed that the effect of attitude operates indirectly through characteristics such as perceived value and product choice, demonstrating that good evaluations alone may not automatically convert into purchase decisions. Thus, the hypothesis follows as below:

H1: There is a significant relationship between attitude and purchase intention of Generation Z in green skin care products.

2.4.2 The Relationship between Subjective Norms and Purchase Intention

Research reveals the enormous influence of subjective norms on consumer purchase decisions. For example, the study by Wiganda and Barqiah (2023) on halal cosmetic users in Surabaya indicated that subjective norms significantly improved consumers' purchasing intention toward Emina products. The study observed that when prominent people, such as friends and family, offer acceptance or encouragement, consumers become more motivated to acquire the goods, highlighting the powerful influence of social pressure in molding purchasing behaviour.

Several studies have investigated the impact of subjective norms on consumer purchase intentions. Shimul et al. (2021) discovered that subjective norms have a strong favorable effect on the propensity to buy

green cosmetics. The study found that when people feel supported or approved by significant people in their lives, such as family and friends, they are more inclined to consider purchasing green cosmetic items. This social incentive develops acceptability and reinforces the perception that purchasing environmentally friendly products is the proper thing to do, ultimately increasing customers' willingness to make such purchases.

On the other hand, Khan and Azam (2016) discovered that subjective norms did not significantly impact Indian customer intentions to purchase products that are halal. This suggests that the approval or opinions of others may not necessarily transfer into practical purchasing choices. Besides, Wong, Hsu, and Chen (2018) discovered that subjective norms did not greatly influence customers' intentions to purchase substandard foods in Taiwan. The study found that customers' decisions about these products were not significantly influenced by social pressure or the opinions of significant others. The researchers stated that because consuming substandard foods has not yet become a socially acceptable or encouraged norm, marketers may need to focus on awareness efforts and community-level messaging to elevate social acceptance. Subjective norms may have a greater impact on consumer intention if the idea that selecting less-than-ideal foods is both socially acceptable and responsible is strengthened. In light of findings from prior studies, the subsequent hypothesis is suggested:

H2: There is a significant relationship between subjective norms and purchase intention of Generation Z in green skin care products.

2.4.3 The Relationship between Perceived Behavioural Control and Purchase Intention

Extensive research has investigated the link between perceived behavioural control and purchase intention. A study conducted by Karatu and Mat (2015) on green products found that perceived behavioural control positively influences consumers' intention to purchase green products. The researchers assert that when consumers feel they have control, meaning they believe they have the ability and resources to purchase green products, they are more likely to intend to buy them, suggesting perceived behavioural control is a significant driver of purchase intention.

As indicated by the findings of Wijaya and Harsoyo (2025) on Indonesia's second-hand clothes market, consumers' purchase intentions were significantly and favourably impacted by perceived behavioural control. The researchers indicated that when consumers feel confident in their capacity to identify, appraise, and purchase thrifted products, they are more inclined to be determined to make a purchase. To strengthen this effect, the authors proposed that businesses should work on enhancing accessibility, such as simplifying product search, delivering clearer product information, and ensuring transparent purchasing processes. Enhancing consumers' sense of control may further boost purchase intention in the rising second-hand apparel sector.

In contrast, the connection between perceived behavioural control and online purchase intention has been the subject of numerous studies. A study done by Nazri and Othman (2023) among officers of the Royal Malaysian Police discovered that perceived behavioural control did not have a significant impact on their intention to engage in online purchases. The authors pointed out that although 150 respondents might believe they could shop online, perceived behavioural control, perceived ease of use, and social influence did not translate into actual intention. This suggests that other factors, like attitude and perceived usefulness, might be more important.

Additionally, another study of Lim et al. (2020) found that perceived behavioural control had no significant influence on purchase intention for natural skincare products among Generation Y consumers in Malaysia. The researchers explained that even when consumers believed they had the ability or finances to purchase natural skincare products, their impression of control did not always convert into genuine intent. To overcome this issue, they proposed that marketers focus on lowering external barriers such as restricted product availability and imprecise product information. Improving accessibility and providing clearer instructions may make consumers feel more powerful, increasing their propensity to buy natural skincare products. Based on findings from the past studies, the following is the hypothesis:

H3: There is a significant relationship between perceived behavioural control and purchase intention of Generation Z in green skin care products.

2.4.4 The Relationship between Price and Purchase Intention

Earlier research demonstrates the significant effect of price on consumers' buying intention. A quantitative study by Liyanage (2022) found that the price of fashion items strongly influenced millennials' inclination to acquire such products. The study underlined that when consumers view the price as acceptable and affordable, their likelihood of making a purchase improves, underlining the relevance of pricing strategies in driving consumer decisions

Next, Kopplin and Rösch (2021) discovered that pricing strongly affects consumers' intention to purchase sustainable clothes. The study, which collected 464 responses, found that when consumers perceive the price to be fair and provide good value, their willingness to buy increases, emphasizing the importance of pricing in shaping purchasing decisions.

Moreover, Muljani and Koesworo (2019) found that pricing had a strongly favorable impact on the intention to buy a smartphone. This shows that consumers, particularly students, are considering cell phones based on their capabilities and competitive pricing, even if it is also claimed that price has the greatest influence on customers' intent to purchase smartphones.

Conversely, in the context of a retail store, there is no relationship between price and purchase intention. The results also showed that customers are not concerned about costs at big-box retailers since they believe the prices are fair (Arslan and Zaman, 2014). Furthermore, Chan and Wong (2012) also discovered that the premium price of eco-fashion lowered the effect of attractive product and shop features on consumers' desire to purchase. The study emphasized the crucial role pricing strategy has in sustainable consumption decisions by pointing out that even when customers understand the worth and advantages of sustainable items, a higher price may make them less likely to purchase. Another study by Park and Lin (2020, as cited in Kopplin and Rösch, 2021) has examined that the present literature finds a negative relationship between price and purchase intention in the setting of recycled and upcycled fashion items. The study stressed that even when customers appreciate the environmental and social benefits of recycled and upcycled clothing, a greater price can operate as a barrier, lowering their inclination to make a purchase. In accordance with existing research findings, the subsequent hypothesis is presented:

H4: There is a significant relationship between price and purchase intention of Generation Z in green skin care products.

2.4.5 The Relationship between Environmental Knowledge and Purchase Intention

Past research by Pardeshi, Pardeshi, and Khanna (2024) discovered that higher levels of environmental knowledge, combined with previous sustainable behaviour and social influence, greatly enhance consumers' propensity to buy sustainable clothing. The study found that when customers are well-informed about environmental issues, such as the impact of fast fashion and the benefits of eco-friendly alternatives, their attitudes and desire to support green products improve. This emphasizes the relevance of environmental awareness as a significant driver of purchasing intention, suggesting that teaching customers about sustainability can improve their commitment to eco-friendly consumption.

Furthermore, Hariyanto and Alamsyah (2019) discovered that environmental knowledge had a favorable and significant effect on green purchase intention among customers in Bandung, Indonesia. According to the survey, people are more likely to purchase eco-friendly items when they are aware of factors like biodegradability, natural components, and the environmental impact of product production. These results highlight how consumers' confidence in making sustainable decisions is increased by having a better grasp of the environment, highlighting the critical role that information plays in promoting environmentally friendly consumer behaviour.

Additionally, Kusuma and Handayani (2018) also mentioned that among Starbucks customers in Mataram city, higher levels of environmental knowledge significantly enhanced their intention to purchase green items. According to the study, customers are more likely to choose sustainable solutions when they are aware of environmental challenges and the advantages of eco-friendly items. This indicates that consumers' willingness to make ecologically responsible purchases can be directly increased by environmental awareness.

On the contrary, Yogananda and Nair (2019) discovered that environmental knowledge had no noticeable effect on Malaysian consumers' intentions to purchase green food goods. According to the study, consumers are not always motivated to make green purchases just because they are aware of environmental issues or comprehend ecological concepts. This suggests that knowledge alone is insufficient in the absence of supportive factors like affordability, convenience, and personal relevance. Another past study by Simanjuntak et al. (2023) also revealed that although environmental knowledge greatly increased consumers' environmental care attitudes, it did not have a significant direct effect on their intention to purchase green items. This quantitative research involved a total of 159 respondents and utilized structural equation modelling (SEM) with linear structural relations (LISREL) to analyse the green products industry. The study underlined that while knowledge about environmental issues can increase awareness, this understanding does not always convert into purchasing decisions. It emphasizes that consumers' decisions to make environmentally friendly purchases may be more influenced by other elements, including personal values, perceived product benefits, and emotional motivation. Therefore, the following hypothesis is developed:

H5: There is a significant relationship between environmental knowledge and purchase intention of Generation Z in green skin care products.

2.5 Conclusion

This chapter evaluated the prior relevant research, discussed the Extended Theory of Planned Behaviour, the dependent and independent variables, and the proposed 5 hypotheses to examine the link between the variables.

CHAPTER 3: METHODOLOGY

3.0 Introduction

The research approach employed to achieve the study's goals is covered in this chapter. Before the construct measurement, it begins with the design of the research, the design of sampling, the method of data collection, and instrument of the research. The instruments utilised to examine data will be discussed.

3.1 Research Design

Hammel (2025) argued that a method that directs decisions about methodology, ensuring professionalism and minimizing process difficulties, is identified as research design. There are numerous varieties of research designs, each with pros and cons. The nature of the topic, the purpose of the study, and the resources available all influence the kind of study design that is employed to address a given research question (Ranganathan and Aggarwal, 2018). It is crucial to recognize the different kinds of research study designs, as well as their advantages, disadvantages, and commonalities, due to the significance of study design to the overall result of a research process (Nwabuko, Iwu, Njoku, and Nwamoh, 2024). Hence, in this study, a descriptive and quantitative research design was used. The five independent variables (attitude, subjective norms, and perceived behavioural control, price, and environmental knowledge) are the main emphasis of this method and their effect on the dependent variable, purchase intention. Using this quantitative and descriptive technique, the study aims to examine the purchase intention of Generation Z in green skincare products.

3.1.1 Quantitative Research

In order to answer the research question or hypothesis, quantitative research designs rely on the collection and analysis of numerical data (Slater and Hasson, 2024). The goal of quantitative research is to measure the data and extrapolate conclusions from a study sample from several angles (Ghanad, 2023). The foundation of quantitative research is data gathering and analysis, which is grounded on a logical approach with an emphasis on verifying hypotheses and influenced by positivist and empiricist philosophies (Bryman, 2016). To accurately evaluate and present the research, quantitative research seeks to investigate the link between two variables (Ahmad, Wasim, Irfan, Gogoi, Srivastava, and Farheen, 2019). Target respondents were given survey forms to fill out in order to gather data for this study. As noted by Zyoud, Bsharat, and Dweikat (2024), quantitative research is thought to be accurate, reliable, and legitimate. A quantitative technique was selected to analyse the elements impacting Generation Z's purchasing intention toward green skincare products because all variables in this study were examined using closed-ended questionnaires.

3.1.2 Descriptive Research

A methodological strategy known as descriptive research aims to emphasise the features of a group of people or subject being studied (Singh, 2023). According to Dulock (1993), descriptive research offers a precise description of the traits of people, circumstances, or organizations. Its worth is predicated on the idea that by observation, analysis, and description, issues can be resolved and procedures enhanced (Koh and Owen, 2000). Normally, this type of research is conducted via a survey, which includes questionnaires, personal interviews, phone surveys, and normative surveys (Koh and Owen, 2000). Furthermore, this form of research evaluates demographic traits, pinpoints issues faced by groups or organisations, and investigates variances in customs or habits among organisations or countries

(Siedlecki, 2020). The descriptive technique of this study utilised a 5-point Likert-scale questionnaire to assess the independent and dependent variables, ensuring systematic data collection, interpretation, and comparison (Sirisilla, 2023). Hence, this approach is suitable since it makes it possible to evaluate the variables impacting Generation Z's propensity to buy eco-friendly skincare products.

3.2 Sampling Design

Kabir (2016) states that the purpose of this research study's sample design is to investigate the variables' hypotheses and provide an estimate of the population parameter. A well-structured sample design includes identifying the components of the population of interest, establishing a sampling frame and location, selecting an appropriate sampling method, and deciding on the sample size, particularly for research purposes.

3.2.1 Target Population

A specific subset or segment of the broader population that is the main focus of a study, intervention, or marketing effort is referred to as the target population (Banerjee and Chaudhury, 2010). It reflects a more limited subset of people who fit certain requirements or have particular traits (Bhandari, 2020). The research question or the goals of the undertaking serve as the basis for identifying the demographic to be targeted (Willie, 2023). In this research, the target population consists of Generation Z, whose ages range from 15 to 30 years old (Mahapatra et al., 2022). According to Francis and Hoefel (2018), Gen Zers are well-known for their dependence on social media and are referred to be digital natives. As digital natives, Gen Z has a unique worldview influenced by global connection, a natural aptitude for technology, and lively social interactions (Wajdi, Susanto, Sumartana, Sutiarto, and Hadi, 2024). Ahmed (2019) argued that 99% of Gen Z own

smartphones, and 98% use them to access the Internet. Hence, Generation Z uses smartphones much more frequently than other cohorts (Priporas, Stylos, and Fotiadis, 2017). This is precisely why Generation Z is an excellent target population for this study, as their high digital engagement and regular exposure to online content have a substantial impact on their attitudes, awareness, and purchasing decisions towards green skincare products.

3.2.2 Sampling Frame

The collection of primary sources used to select the sample is known as a sampling frame (Turner, 2003). It describes every member of the population who qualifies for selection, guaranteeing that the sample fairly represents the intended group (Morgan, 2008). For this study, the sampling frame consists of Malaysian Generation Z individuals between 15 and 30 years old, regardless of gender, ethnicity, or region. As Gen Z is extensively involved in skincare consumer trends, regularly exposed to sustainability-related content, and very active on digital platforms, this group is especially well-suited. These qualities make them ideal respondents for evaluating how their purchase intentions for green skincare products are influenced by attitude, subjective norms, and perceived behavioural control, price and environmental knowledge.

3.2.3 Sampling Location

The survey was shared online via Google Forms via popular digital platforms among Malaysian Generation Z, such as Facebook groups devoted to beauty and wellness, Instagram and TikTok, where users actively interact with skincare content, personal networks on WhatsApp and Telegram, and university online forums or mailing lists. These platforms were chosen to guarantee a wide audience and to connect with people who

have different degrees of engagement and interest in eco-friendly skincare products. Online platforms have been extensively employed in survey-based research and are acknowledged as efficient means of accessing particular target populations, especially younger demographics (Topolovec-Vranic and Natarajan, 2016; Whitaker, Stevelink, and Fear, 2017). By utilizing numerous online platforms, the survey was able to reach respondents from various parts of Malaysia, offering a more complete picture of the target demographic. Additionally, this method made participation quick and easy, enabling participants to finish the survey at their own speed (Tyler, Boldi, and Cherubini, 2022).

3.2.4 Sampling Technique

Sampling techniques, which entail choosing a subset from the wider population, are essential to research because they determine the nature and generalizability of findings (Elfil and Negida, 2017). According to Sharma (2017), it stated that the two main types of sampling are probability sampling and non-probability sampling. In order to address a study question, non-probability sampling employs non-random features like availability, proximity, or expert knowledge (Nikolopoulou, 2022). Non-probability samples have uncertain selection probabilities, which can contribute to bias (Acharya, Prakash, Saxena, and Nigam, 2013). Conversely, probability sampling allows the researcher to estimate the sampling error with a degree of confidence and draw conclusions about the population from the sample. Probability sampling is also more complicated, time-consuming, and costly (Ahmed, 2024).

This research will employ convenience sampling, a non-probability sampling technique. Since it is an effective way to find people who are accessible and willing to take part in the online survey (Golzar, Tajik, and Noor, 2022). One significant advantage of this strategy is its convenience, especially in online research, as participants can answer using a variety of

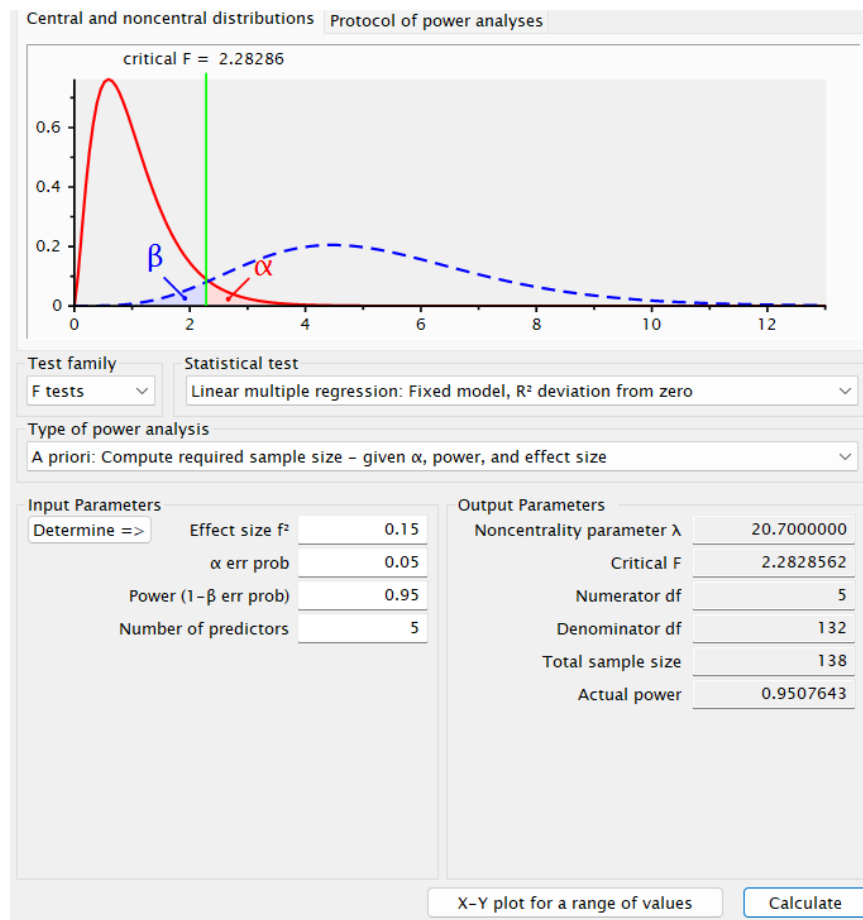
mobile devices, including smartphones and tablets (Evans and Mathur, 2018). The approach is ideal for engaging Malaysia's Generation Z, who are active on digital platforms and interested in skincare products. Convenience sampling also allows for quick data collection from a wide and accessible subset of the target population (Golzar et al., 2022).

3.2.5 Sampling Size

According to Andrade (2020), the size of a study's sample must be estimated at the time it is proposed; a sample that is too big is needless and immoral, while a sample that is too small is both inaccurate and unethical. In empirical research, sample size is essential to ensuring reliable generalizations free from bias or inaccuracy (Taherdoost, 2017). Depending on the nature of the study, sample sizes might be classified as small, medium, or large (Althubaiti, 2022), and sample sizes between 30 and 500 are generally deemed sufficient (Maydeu-Olivares, Shi, and Rosseel, 2017). Overall, establishing a suitable sample size is crucial, since both too small and big samples might affect study outcomes (Faber and Fonseca, 2014).

G*Power is suggested for sample size and power computations for several statistical techniques due to its simplicity and cost-effectiveness (Kang, 2021). In addition, G*Power with an effect size (f^2) of 0.15, a significance threshold of 0.05, a power of 0.95, and five predictors was utilised to compute the minimum required sample size for this investigation. As reported by the analysis, 138 respondents in total are required to guarantee the validity and power of the study. As Figure 3.1 illustrates, this size of the sample is sufficient to find important relationships while lowering the likelihood of mistakes

Figure 3.1: The Sample Size Test Result Using G*Power Software



Source: G*Power Version 3.1.9.7

3.3 Data Collection Method

The practice of methodically obtaining and quantifying information on pertinent variables to address certain research questions, test hypotheses, and assess results is known as data collecting (Mazhar, Anjum, Anwar, and Khan, 2021). The primary phase of research is data collection, which can lower project errors and improve the quality of research findings. As faulty or inadequate data could compromise the credibility of research findings, a great deal of effort should be placed into data collection in addition to a well-designed study to ensure suitable outcomes. In this section, primary data will also be covered.

3.3.1 Primary Data

Primary data refers to information gathered firsthand, directly by the researcher from sources. Surveys, observations, questionnaires, focus groups, case studies, and interviews are a few examples of primary data sources (Ajayi, 2023). Using primary data provides more efficient and precise information about a target population (Costa, 2022). As electronic data systems offer advantages over paper-based approaches, researchers have long sought them out and employed them to collect raw data (Wilcox, Gallagher, Boden-Albala, and Bakken, 2012).

In this study, primary data were gathered via an online survey. An internet-based survey is a self-administered questionnaire that gathers information from participants online instead of by mail or phone (Tuten, 2010). This strategy is appropriate since the study's objective is to ascertain the relationship between the independent variables (IVs), namely attitude, subjective norms, and perceived behavioural control, price, and environmental knowledge and the dependent variable (DV), purchase intention. By gathering primary data directly from Malaysian Generation Z respondents, the researcher is able to gain personal insights and capture the genuine connections between the variables, reflecting the attitudes and behaviours of people who purchase green skincare products.

3.4 Research Instrument

Any device, apparatus, or method for collecting, quantifying, and analysing data related to a research question or hypothesis is considered a research instrument (Oben, 2021). Questionnaires, interviews, checklists of observations, and standardized scores are examples of commonly used instruments. Choosing the correct equipment is crucial since it affects the accuracy and reliability of your results (Alex, 2025). In quantitative research, when measurement accuracy and statistical analysis are crucial, questionnaires and scales are most frequently utilized

(Koo and Yang, 2025). Questionnaires are useful because they are affordable, excellent at gathering information from big, diverse groups, and allow for anonymity, which promotes candid responses on delicate topics (Stone, 2023). Thus, in this research, the survey questionnaire was sent electronically to the intended respondents. The questionnaire was created using Google Forms to facilitate communication with responders.

3.4.1 Questionnaire Design

According to Bhandari (2021), creating valid and trustworthy questions that match your research objectives, organizing them logically, and choosing a suitable administration method are all part of designing a questionnaire. A questionnaire that is well-planned must be prepared and produced in several stages, requiring much consideration and work (Roopa and Rani, 2012). For this research, the questionnaire is split into 3 distinct segments, identified as A, B, and C. Additionally, the Google form is used to create a 5-point Likert scale with English as the medium.

In Section A, it requires respondents to submit demographic information. This covers information about gender, age group, education level, and income level. Collecting demographic data allows the researcher to acquire a better knowledge of the features of Malaysian Generation Z and how these background elements may influence their attitudes and behaviours towards green skincare products.

In Section B, participants are asked a few generic questions on their awareness and engagement with green skincare products. These questions are used as screening criteria to ensure that only Malaysian Generation Z individuals with some exposure to skincare products are included in the research. It helps screen out respondents who do not fulfil the study's requirements, ensuring that the data collected is appropriate and consistent with the research objectives.

In Section C, the questionnaire measures the study's important constructs. This section includes items relating to the five independent variables (attitude, subjective norms, perceived behavioural control, price, and environmental knowledge), as well as the dependent variable (purchase intention). Respondents can indicate how much they agree or disagree with each statement using a 5-point Likert scale. This framework assures consistency in measurement and allows for meaningful study of the relationships between the variables.

3.4.2 Pilot Test

Before collecting large-scale data, the questionnaire's validity and reliability are assessed through pilot testing. It enables the researcher to get input, pinpoint ambiguous or troublesome items, and make the required changes to enhance the instrument's overall quality (Ruel, Wagner, and Gillespie, 2015). Additionally, Dikko (2016) emphasizes the significance of pilot testing, especially for identifying problems that could compromise the accuracy of the final results. Hertzog (2008) states that pilot studies typically use a sample size of 10 to 40 participants, which is adequate to detect potential flaws in the questionnaire and to evaluate the study's viability.

Additionally, a Cronbach's Alpha test is used in this study to evaluate the constructs' internal consistency. Ideally, the Cronbach's alpha coefficient should have a minimum value of 0.60 (Daud, Khidzir, Ismail, and Abdullah, 2018; Bujang, Omar, Foo, and Hon, 2024). Before beginning full-scale data collection, the authors use the Cronbach's alpha values obtained for every construct in the pilot study to ascertain the dependability of the measuring scales (Tavakol and Dennick, 2011). As a result, in this study, 45 respondents will be collected for the pilot study.

Table 3.1: Pilot Test Results

No.	Constructs	Cronbach's Alpha	Number of Items	Reliability Level
1.	Purchase Intention	0.777	4	Acceptable
2.	Attitude	0.811	5	Good
3.	Subjective Norms	0.760	5	Acceptable
4.	Perceived Behavioural Control	0.786	5	Acceptable
5.	Price	0.745	4	Acceptable
6.	Environmental Knowledge	0.812	5	Good

Source: Developed for the research.

Table 3.1 presents the Cronbach's Alpha for assessing reliability. The outcomes revealed that all constructs achieved a satisfactory level of internal consistency, with Cronbach's Alpha values ranging from 0.745 to 0.812. Environmental Knowledge received the highest reliability score of 0.812, followed by the attitude score of 0.811, indicating good dependability. Perceived Behavioural Control (0.786), Purchase Intention (0.777), Subjective Norms (0.760), and Price (0.745) all indicate an acceptable level of reliability. Notwithstanding the differences, every result stays above the permissible cutoff of 0.6, indicating that the constructs are trustworthy enough for additional empirical research.

3.5 Construct Measurement

3.5.1 Origin of Constructs

Table 3.2: Origin of Constructs

Constructs	Original Questionnaire	Modified Questionnaire	Sources
Purchase Intention	<p>1. The probability I would consider buying this green cosmetics is high.</p> <p>2. I would buy this green cosmetics if I happened to see it.</p> <p>3. I would actively seek out this green cosmetics in a place to purchase it.</p> <p>4. If I were going to purchase a similar products, I would buy this green cosmetics.</p>	<p>1. The possibility I would consider buying this green skin care products are high.</p> <p>2. I would buy this green skin care products if I happened to see it.</p> <p>3. I would actively seek out this green skin care products in a place to purchase it.</p> <p>4. If I were going to purchase a green skin care product, I would buy this green skin care brand.</p>	Shimul et al. (2021).
Attitude	<p>1. Regarding green skincare products, I have a favourable attitude.</p> <p>2. Even after being more expensive, I like utilizing green skincare products over conventional ones.</p> <p>3. I prefer buying eco-friendly skincare products</p>	<p>1. Regarding green skincare products, I have a favourable attitude.</p> <p>2. Even after being more expensive, I like to use green skincare products over conventional (regular) ones.</p> <p>3. I prefer buying green skincare products</p>	Al Mamun, Shawon, and Hamid (2024).

	<p>because they are more favourable.</p> <p>4. In my opinion, buying eco-friendly skincare products is a positive behaviour.</p> <p>5. Purchasing green skincare products is a wise decision.</p>	<p>because they are more favourable.</p> <p>4. In my opinion, buying green skincare products is a positive behaviour.</p> <p>5. Purchasing green skincare products is a good decision.</p>	
Subjective Norms	<p>1. I prefer to buy green skincare products when my family members suggest them.</p> <p>2. I prefer to buy green skincare products when my friends recommend them.</p> <p>3. I learned to distinguish green skincare products from conventional ones from my parents.</p> <p>4. I learned to distinguish green skincare products from conventional ones from my friends.</p> <p>5. Social media can influence my decision to purchase eco-friendly skincare products.</p>	<p>1. I prefer to buy green skincare products when my family members suggest them.</p> <p>2. I prefer to buy green skincare products when my friends recommend them.</p> <p>3. I learned to differentiate green skincare products from conventional (regular) ones from my parents.</p> <p>4. I learned to differentiate green skincare products from conventional (regular) ones from my friends.</p> <p>5. Social media can influence my decision to purchase green skincare products.</p>	Al Mamun, Shawon, and Hamid (2024).
Perceived Behavioural Control	<p>1. I have the affordability to purchase green skincare</p>	<p>1. I have the affordability to purchase green skincare</p>	Al Mamun, Shawon, and

	<p>products.</p> <p>2. Going green would be entirely within my control.</p> <p>3. I am willing to purchase eco-friendly skincare goods.</p> <p>4. I can locate local suppliers of eco-friendly skincare items around my area.</p> <p>5. I have time to search for environment-friendly skincare products.</p>	<p>products.</p> <p>2. Going green would be entirely within my control (decision, power).</p> <p>3. I am willing to purchase green skincare products.</p> <p>4. I can identify shops or producers in my area that supply green skin care products.</p> <p>5. I have time to search for green skincare products.</p>	<p>Hamid (2024).</p>
Price	<p>1. I think the price of sustainable fashion products is fairly high.</p> <p>2. I am willing to pay more for sustainable fashion products.</p> <p>3. I will switch to using sustainable fashion products if they are priced the same as my usual brands.</p> <p>4. I will switch to using sustainable fashion products if they are less expensive.</p>	<p>1. I think the price of green skin care products is fairly high.</p> <p>2. I am willing to pay more for green skin care products.</p> <p>3. I will switch to using green skin care products if they are priced the same as my usual brands.</p> <p>4. I will switch to using green skin care products if they are less expensive.</p>	<p>Tran, Le, Lam, and Do (2025).</p>
Environmental Knowledge	<p>1. I can identify green or environmentally friendly fashion products.</p>	<p>1. I can identify green or environmentally friendly skin care products.</p>	<p>Yoharis, Rahel, and Lusianah (2025).</p>

	<p>2. I know how to reduce fashion-related waste, for example, by upcycling (transforming old clothes into more useful and valuable products) or buying second-hand items.</p> <p>3. I am confident in my knowledge about environmental issues relevant to the fashion industry.</p> <p>4. I know environmental terms such as “greenhouse gases”, “climate change”, and “global warming”.</p> <p>5. I know that green fashion products cause less environmental damage than conventional ones.</p>	<p>2. I know how to reduce skin care-related waste, such as recycling product containers, bottles, and packaging materials.</p> <p>3. I am confident in my knowledge about environmental issues relevant to the green skin care industry.</p> <p>4. I know environmental terms (e.g., greenhouse gases, climate change, and global warming), and I understand how they relate to the use of green skin care products.</p> <p>5. I know that green skin care products cause less environmental damage than conventional (regular) ones.</p>	
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Source: Developed for the research.

3.5.2 Scale Measurement

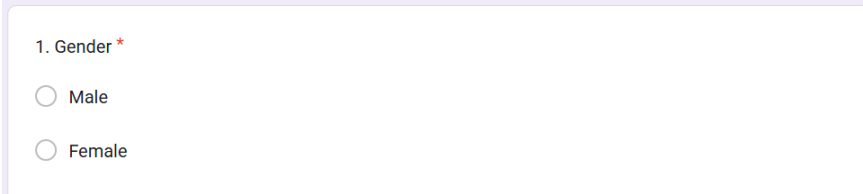
According to Stevens (1946), it emphasised that the definition of measurement is the rule-based assignment of numbers to objects or events. Different scales and measurements result from the capacity to assign numbers based on numerous notions. For instance, the four measuring scales are nominal, ordinal, interval, and ratio (Anjana and Prasad, 2021). This

study's survey questionnaire includes both ordinal and nominal scales for data collection.

3.5.2.1 Nominal Scale

Constructs that cannot be arranged in ascending or descending order are labelled using a nominal scale. For nominal scales, variables contain two or more categories, and there is no fundamental ordering of the categories (Shukla, 2023). The nominal scale was used in this study's questionnaire to classify demographics like gender, age group, income level, education level, and so on. These distinct and non-overlapping demographic features allow the data to be organized into meaningful groups. Such segmentation helps discover differences or patterns among different respondents and provides a better understanding of how factors influencing purchase intention toward green skincare products may vary across Malaysian Generation Z demographic profiles.

Figure 3.2: Sample of Nominal Scale in Questionnaire (Gender)



1. Gender *

Male

Female

Source: Developed for the research.

3.5.2.2 Ordinal Scale

While determining greater or lower relations, the ordinal scale is evaluated based on value locations without exact numerical differences or fixed units of measurement (Mishra, Pandey, Singh, and Gupta, 2018). In order to assess respondents' intents, attitudes, and perceptions, an ordinal 5-point Likert scale is employed in this study. Although it does not assume equal intervals between categories, an ordinal scale enables data to be categorized in a meaningful manner, revealing relative ranks among replies. Respondents can indicate how much they agree or disagree with each item using a 5-point Likert scale, which is usually coded as 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. This method allows the researcher to examine correlations between factors while also determining the strength of respondents' sentiments toward green skincare products.

Figure 3.3: Sample of Ordinal Scale in Questionnaire (Price)

Price *					
<i>Price means consumers' perception of a product's cost, affordability, and fairness relative to its value.</i>					
	1	2	3	4	5
I think the pri...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am willing t...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will switch t...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will switch t...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Source: Developed for the research.

3.6 Proposed Data Analysis Tool

The methods of gathering, cleaning, converting, and modelling information to derive meaningful insights are known as data analysis (Alem, 2020). Hence, this section describes the data interpretation and conclusions. It will discuss the findings from descriptive analysis, evaluate the reliability of the data, and perform inferential analyses.

3.6.1 Descriptive Analysis

As stressed by the study of Lobiondo-Wood and Haber (2018), descriptive analysis refers to the statistical procedure of organizing, summarizing, and presenting raw data in a meaningful form. To prepare for inferential analytical comparisons, it is important to first generate descriptive statistics. Descriptive statistics include frequency and percentage measurements, central tendency (i.e., mean), and the degree of dispersion or variation (i.e., standard deviation). In addition, the current study employed frequency distribution analysis to convert the data into tabular or graphical forms, including bars and pie charts (Manikandan, 2011). Hence, descriptive statistics are a reliable and informative method for statistically summarizing data (Alabi and Bukola, 2023).

3.6.2 Reliability Test

The reliability test is the extent to which a test measures without error (Franzen, 2011). Transparency is enhanced, and bias is less likely when the reliability test is passed (Bradley, DeVito, Lloyd, Richards, Rombey, Wayant, and Gill, 2020). According to Olaniyi (2021), Cronbach's alpha coefficient is useful in determining reliability since it assesses the internal consistency of the collection of items that comprise a scale. Higher levels of Cronbach's alpha, which run from zero to one, suggest more internal

consistency and demonstrate that the items measure the same underlying construct (Bujang, Omar, and Baharum, 2018; Xhafka, Sinoimeri, and Teta, 2024). When an item's Cronbach's alpha score is higher than 0.6, it is deemed reliable; a number between 0.6 and 0.8 is acceptable (Raharjanti, Wiguna, Purwadianto, Soemantri, Indriatmi, Poerwandari, Mahajudin, Nugrahadi, Roekman, Saroso, Ramadianto, and Levania, 2022). To help with the understanding of the reliability results, Table 3.2 below provides a general guideline for Cronbach's alpha levels.

Table 3.3: Rule of Thumb for Cronbach Alpha Value

No.	Coefficient of Cronbach's Alpha Value	Reliability Level
1.	More than 0.90	Excellent
2.	0.80 – 0.90	Good
3.	0.60 – 0.80	Acceptable
4.	0.50 – 0.60	Poor
5.	Less than 0.50	Unacceptable

Source: Daud et al. (2018).

3.6.3 Inferential Analyses

As stated by the paper of Guetterman (2019), inferential statistics is another broad category of techniques that go further than merely describing a data collection. Inferential statistics also allow researchers to generalise results from a sample to the complete population. The Pearson correlation coefficient, multiple linear regression analysis, including a multicollinearity test, are used in this study to assess the strength of the relationship between the two constructs.

3.6.3.1 Pearson Correlation Coefficient

In research, statistical measurements like the Pearson Correlation Coefficient are often used to show a relationship between variables or assess how well two approaches agree (Janse, Hoekstra, Jager, Zoccali, Tripepi, Dekker, van Diepen, 2021). It quantifies how closely differences in one variable are connected with variations in another, making it appropriate for examining correlations among the constructs (Liu, Chen, Li, Duan, and Li, 2022). The coefficient spans from -1.0 to +1.0, with positive values indicating that both variables move in the same direction and negative values indicating the inverse relationship. A number of +1.0 indicates perfect positive correlation, while a coefficient of -1.0 indicates perfect negative correlation (Sekaran and Bougie, 2016). There is no relationship between two variables when the value is 0 (Nickolas, 2024). To evaluate possible links between dependent and independent variables, this study will employ Pearson's correlation analysis to evaluate the direction and strength of the linear relationship between the independent variables, which are attitude, subjective norms, perceived behavioural control, price, environmental knowledge, and the dependent variable, which is purchase intention. Table 3.3 provides general criteria for interpreting r values, defining correlation strength as very low, low, moderate, high, or very high.

Table 3.4: Rule of Thumb for Pearson Correlation Coefficient

Scale of Pearson Correlation Coefficient	Interpretation
$0.00 \leq r \leq 0.19$	Very Low Correlation
$0.20 \leq r \leq 0.39$	Low Correlation
$0.40 \leq r \leq 0.59$	Moderate Correlation
$0.60 \leq r \leq 0.79$	High Correlation
$0.80 \leq r \leq 1.00$	Very High Correlation

Source: Abu Bakar, Rosbi, Hashim, and Che Arshad (2021).

3.6.3.2 Multiple Linear Regression Analysis

For data with numerous predictor variables and a single outcome, a multiple linear regression model expands upon the basic linear regression model (Eberly, 2007). It investigates the cumulative impacts of several independent factors on a single dependent variable and determines the distinct contribution of each predictor while accounting for the others (Burton, 2021). This method works effectively when the objective is to identify which variables significantly predict the result and to ascertain the direction and strength of associations. According to Wibowo, Purnomosidi, and Andriyani (2025), the multiple linear regression analysis model fit using measures like coefficient of determination (R^2), modified R^2 , and F-statistic, which measure how well predictors explain variance in the dependent variable. To ascertain whether each independent variable has a statistically significant impact, individual predictor significance is also investigated using t-statistics and p-values. The stronger the R^2 , the more effectively the regression model matches the observations. (Gupta, Stead, and Ganti, 2024). Additionally, if the $p < 0.05$, the independent variable is reliable and has a meaningful association with the dependent variable (Kwak, 2023). The equation of multiple linear regression is demonstrated in Figure 3.2.

Figure 3.4: The Equation of Multiple Linear Regression

$$y = \beta_0 + \beta_1 x_1 + \dots + \beta_n x_n + \varepsilon$$

Source: Uyanık and Güler (2013).

Each symbol indicates that,

y = Dependent Variable, x_i = Independent Variable, β_i = Parameter,

ε = Error

The multiple regression analysis for this study is as follows:

y = Purchase Intention

β_0 = Intercept

$\beta_i = \beta_1 \dots \beta_5$ = Regression coefficients for each independent variable

x_1 = Attitude

x_2 = Subjective Norms

x_3 = Perceived Behavioural Control

x_4 = Price

x_5 = Environmental Knowledge

ε = Error

In this model, purchase intention represents the dependent variable (DV), whereas attitude, subjective norms, perceived behavioural control, price, and environmental knowledge indicate as the independent variables (IVs). These variables were chosen based on past research highlighting their impact on purchase intention.

3.6.3.3 Multicollinearity Test

According to Shrestha (2020), the occurrence of strong intercorrelations between the variables in a multiple regression model is known as multicollinearity. The regression coefficient's standard error rises along with the variation (Kim, 2019). Furthermore, a higher standard error suggests that any or all of the independent variables' coefficients may differ significantly from zero (Daoud, 2017). One of the most popular methods for determining if multicollinearity may occur in a multiple linear regression model is the variance inflation factor (Salmerón-Gómez, García-García, and García-Pérez, 2025). Multicollinearity is commonly detected by examining the Variance Inflation Factor (VIF) and tolerance values (Nakarmi, 2024). In combination with VIF values, tolerance is used to show the percentage of variance in an

independent variable not explained by the remaining predictors (Kyriazos and Poga, 2023). Serious multicollinearity is usually indicated by a tolerance value less than 0.10 or a VIF value more than 10 (Marcoulides and Raykov, 2019). However, a significant correlation that might be risky is indicated by a VIF between 5 and 10 (Akinwande, Dikko, and Samson, 2015). Therefore, the multicollinearity test aids in verifying the validity and sufficiency of the multiple regression model employed in this study.

3.7 Conclusion

This chapter outlined the research technique used to identify factors impacting Generation Z's buying intention for green skincare products. It described research design, sampling strategy, data collection technique, and measuring methods. The chosen analytical approaches guarantee that the investigation yields dependable and useful results.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter reviews the outcomes that are related to the study's questions and hypotheses. It starts with a descriptive overview of the respondents' demographic profile and general data, which are shown as percentages and frequencies. Using the Statistical Package for the Social Sciences (SPSS) Version 29.0, the study examines the statistical characteristics of the independent and dependent variables, including the mean and standard deviation. Furthermore, the analysis addresses reliability, Pearson correlation, multiple linear regression, and multicollinearity. There were 300 questionnaires distributed, and 227 responses were received. However, 3 responses were eliminated due to missing or incorrect data. As a result, the study used 224 legitimate responses, guaranteeing that the results were reliable and valid.

4.1 Descriptive Analysis

Both the study variables and the demographics of the sample are summarised in the descriptive analysis. The demographic data was displayed using frequency and percentage distributions, which provided a full profile of the respondents. Additionally, the primary patterns and variability of the pertinent variables were summarised using descriptive statistics like means and standard deviations, setting the stage for additional inferential studies.

4.1.1 The Demographic Information of Respondents

The demographic profile section included 4 questions consisting of gender, age group, income level, and level of education.

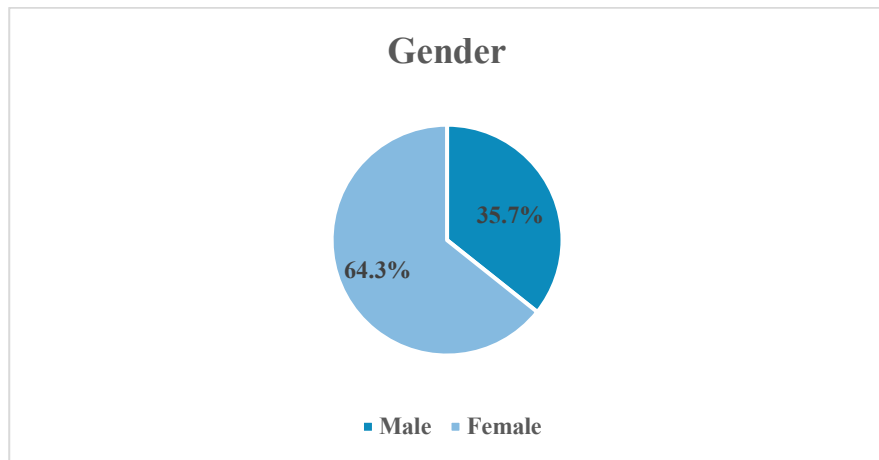
4.1.1.1 Gender

Table 4.1: Gender

Gender	Frequency	Percentage (%)
Male	80	35.7
Female	144	64.3
Total	224	100

Source: Developed for the research.

Figure 4.1: Gender



Source: Developed for the research.

Table 4.1 and Figure 4.1 show the gender distribution of respondents. The study has 224 respondents, with 144 female (64.3%) and 80 male (35.7%).

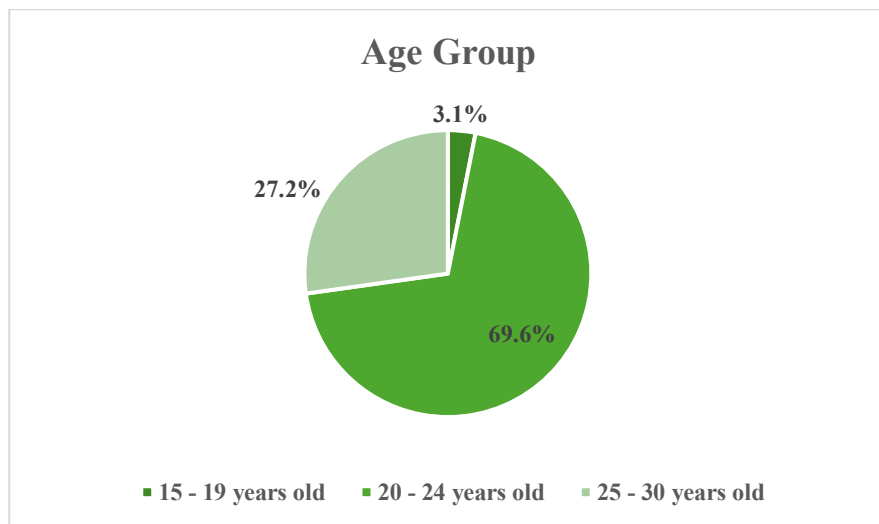
4.1.1.2 Age Group

Table 4.2: Age Group

Age Group	Frequency	Percentage (%)
15 – 19 years old	7	3.1
20 – 24 years old	156	69.6
25 – 30 years old	61	27.2
Total	224	100

Source: Developed for the research.

Figure 4.2: Age Group



Source: Developed for the research.

The majority of responses are between the ages of 20 and 24, as Table 4.2 and Figure 4.2 demonstrate. In particular, 156 respondents (69.6%) are in this age range, making it the largest in the sample. This is followed by respondents aged 25 to 30 years old, who totalled 61 (27.2%). Meanwhile, only 7 respondents (3.1%) are aged 15 to 19, indicating the smallest proportion.

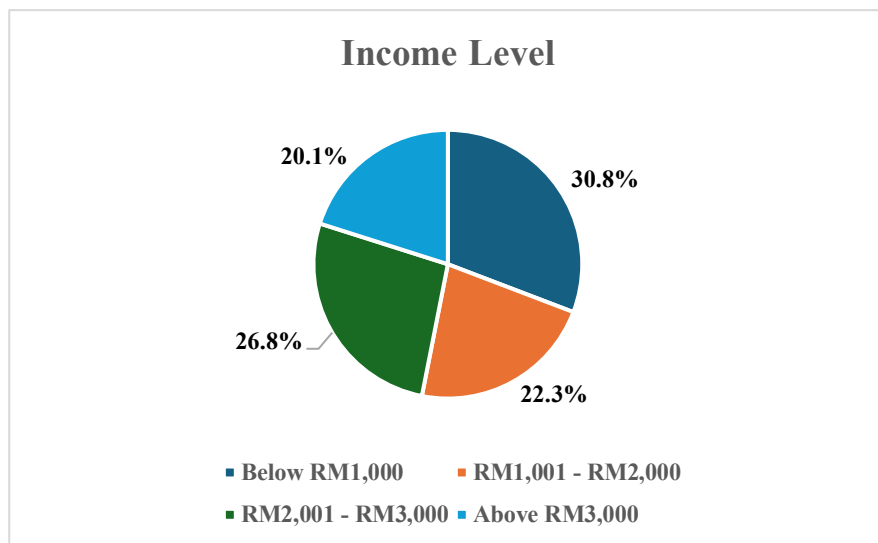
4.1.1.3 Income Level

Table 4.3: Income Level

Income Level	Frequency	Percentage (%)
Below RM1,000	69	30.8
RM1,001 – RM2,000	50	22.3
RM2,001 – RM3,000	60	26.8
Above RM3,000	45	20.1
Total	224	100

Source: Developed for the research.

Figure 4.3: Income Level



Source: Developed for the research.

According to Table 4.3 and Figure 4.3, the respondents' income level depicts that the majority fell into the lower income categories. Specifically, 69 respondents (30.8%) reported an income level of less than RM1,000, making them the largest income category in the sample. This was followed by 60 respondents (26.8%) earning between RM2,001 and RM3,000, and 50 respondents (22.3%) earning between RM1,001 and RM2,000. Meanwhile, 45

respondents (20.1%) reported earning more than RM3,000, which was the lowest proportion of respondents.

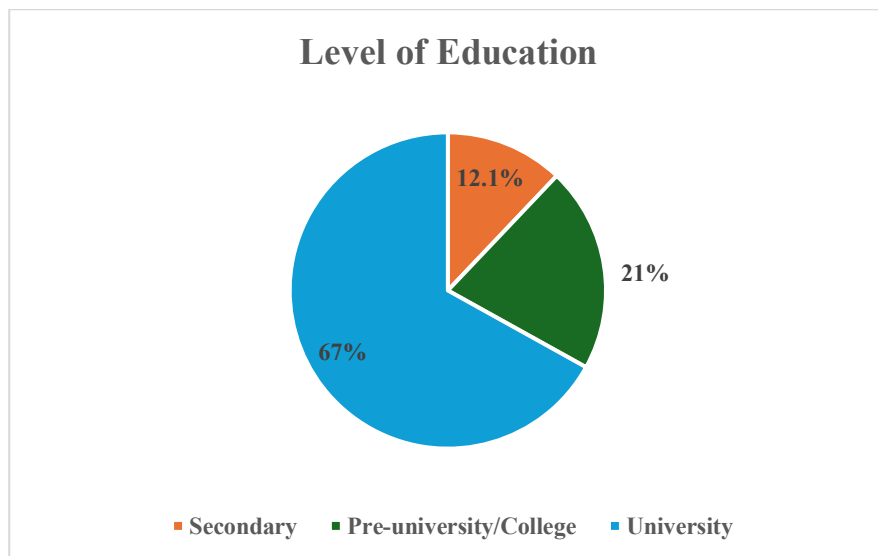
4.1.1.4 Level of Education

Table 4.4: Level of Education

Level of Education	Frequency	Percentage (%)
Secondary	27	12.1
Pre-university/College	47	21
University	150	67
Total	224	100

Source: Developed for the research.

Figure 4.4: Level of Education



Source: Developed for the research.

The education levels of the respondents are revealed in Table 4.4 and Figure 4.4. 150 respondents, or 67% of the sample, had a university education, making up the largest group. Following this were 47 respondents (21%) with pre-university or college education and 27 respondents (12.1%) with secondary education.

4.1.2 The General Information of Respondents

In this subsection, three general questions are examined.

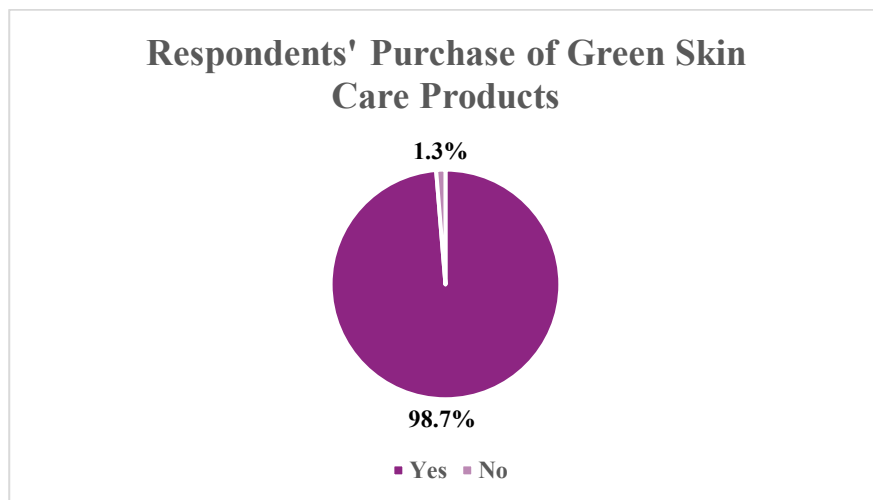
4.1.2.1 Do you purchase green skin care products?

Table 4.5: Respondents' Purchase of Green Skin Care Products

Respondents' Purchase of Green Skin Care Products	Frequency	Percentage (%)
Yes	224	98.7
No	3	1.3
Total	227	100

Source: Developed for the research.

Figure 4.5: Respondents' Purchase of Green Skin Care Products



Source: Developed for the research.

The respondents' purchases of green skin care products are illustrated in Table 4.5 and Figure 4.5. Overall, 224 respondents reported purchasing green skin care products, representing 98.7% of the sample. Nevertheless, only 3 respondents (1.3%) indicated that they did not purchase such products.

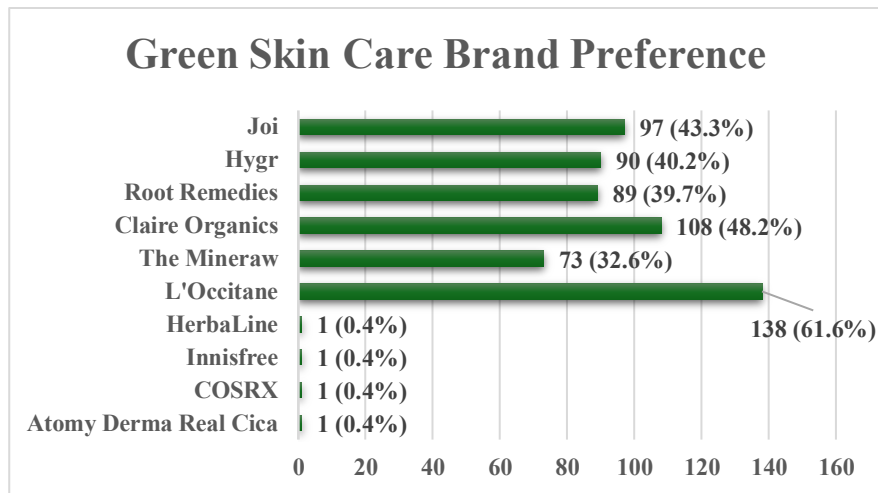
4.1.2.2 Which of the green skin care brands do you prefer the most? (Respondents may choose more than one option)

Table 4.6: Green Skin Care Brand Preference

Green Skin Care Brand Preference	Frequency	Percentage (%)
Joi	97	43.3
Hygr	90	40.2
Root Remedies	89	39.7
Claire Organics	108	48.2
The Mineraw	73	32.6
L'Occitane	138	61.6
HerbaLine	1	0.4
Innisfree	1	0.4
COSRX	1	0.4
Atomy Derma Real Cica	1	0.4
Total	599	267.21

Source: Developed for the research.

Figure 4.6: Green Skin Care Brand Preference



Source: Developed for the research.

Table 4.6 and Figure 4.6 show respondents' preferences for green skin care brands. L'Occitane was the most popular brand among

respondents, with 138 choosing it, accounting for 61.6% of total responses. This was followed by Claire Organics, which 108 respondents (48.2%) selected, and Joi, which 97 respondents (43.3%) chose. Hygr and Root Remedies were also popular, with 90 (40.2%) and 89 (39.7%) respondents choosing them, respectively. The Mineraw was chosen by 73 people (32.6%). HerbaLine, Innisfree, COSRX, and Atomy Derma Real Cica were among the less popular brands, with one respondent selecting each (0.4%).

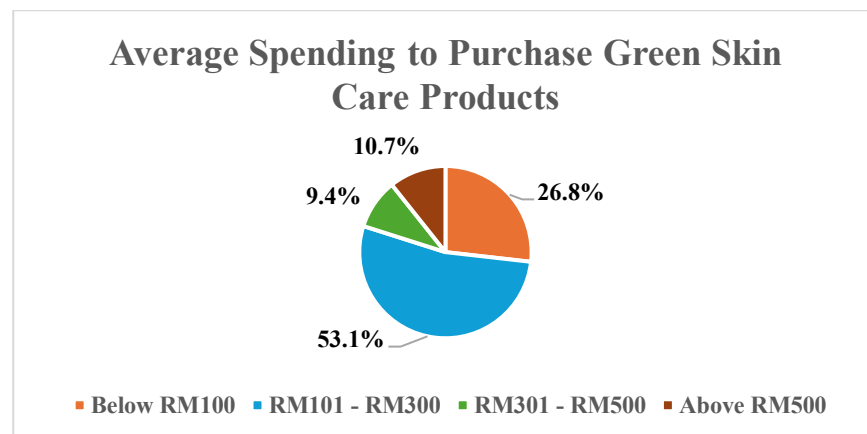
4.1.2.3 How much do you spend to purchase green skin care products?

Table 4.7: Average Spending to Purchase Green Skin Care Products

Average Spending to Purchase Green Skin Care Products	Frequency	Percentage (%)
Below RM100	60	26.8
RM101 – RM300	119	53.1
RM301 – RM500	21	9.4
Above RM500	24	10.7
Total	224	100

Source: Developed for the research.

Figure 4.7: Average Spending to Purchase Green Skin Care Products



Source: Developed for the research.

Table 4.7 and Figure 4.7 present the distribution of respondents by average spending on green skincare products. The majority of respondents, totalling 119, spent between RM101 and RM300, accounting for 53.1% of the respondents. This was followed by 60 individuals (26.8%) who spent less than RM100, 24 respondents (10.7%) who spent more than RM500, and 21 respondents (9.4%) who spent between RM301 and RM500.

4.1.2.4 How often do you purchase green skin care products?

Table 4.8: Purchase Frequency of Green Skin Care Products

Purchase Frequency of Green Skin Care Products	Frequency	Percentage (%)
Once every few months	86	38.4
2 -3 times a year	95	42.4
Monthly	29	12.9
More than once a month	14	6.3
Total	224	100

Source: Developed for the research.

Figure 4.8: Purchase Frequency of Green Skin Care Products



Source: Developed for the research.

Table 4.8 and Figure 4.8 outline the distribution of respondents based on their frequency of purchasing green skin care products. The largest group, consisting of 95 respondents, reported purchasing green skin care products 2-3 times per year, accounting for 42.4% of all respondents. This was then followed by 86 respondents (38.4%) who acquired similar things every few months, 29 respondents (12.9%) who purchased monthly, and 14 respondents (6.3%) who purchased more than once a month.

4.1.2.5 Where do you usually purchase green skin care products? (Respondents may choose more than one option)

Table 4.9: Channels for Purchasing Green Skin Care Products

Channels for Purchasing Green Skincare Products	Frequency	Percentage (%)
Online Stores	154	68.8
Physical Retail Stores	130	58
Brand Official Websites	93	41.5
Social Media Platforms	85	37.9
Total	462	206.2

Source: Developed for the research.

Figure 4.9: Channels for Purchasing Green Skin Care Products



Source: Developed for the research.

Table 4.9 and Figure 4.9 detail the classification of respondents according to the channels utilized to purchase green skin care items. The majority of respondents, 154 in total, made purchases from online stores, accounting for 68.8% of respondents. This was followed by 130 respondents (58%) who purchased in physical retail stores, 93 respondents (41.5%) who bought on brand official websites, and 85 respondents (37.9%) who bought on social media platforms.

4.1.3 Descriptive Statistics of Dependent and Independent Variables

Table 4.10: Descriptive Statistics of Dependent and Independent Variables

No.	Constructs	Mean	Standard Deviation
1.	Purchase Intention	4.14	0.853
2.	Attitude	4.13	0.828
3.	Subjective Norms	4.19	0.837
4.	Perceived Behavioural Control	4.15	0.875
5.	Price	4.18	0.818
6.	Environmental Knowledge	4.14	0.892

Source: Developed for the research.

Table 4.10 shows descriptive statistics for the dependent and independent variables. The means of all constructs vary from 4.13 to 4.19 on a 5-point Likert scale, suggesting that respondents usually agreed or strongly agreed with statements about all the constructs. The standard deviations are relatively low, ranging from 0.818 to 0.892, indicating that respondents' replies are fairly consistent with limited fluctuation. Notably, subjective norms had the highest mean value (4.19), implying that social influence has a substantial influence on respondents' decisions regarding green skincare products. Conversely, attitude had the lowest mean (4.13), indicating

slightly lower agreement compared to the other constructs. In summary, it suggests that Gen Zers customers show a high intention to purchase green skin care products, driven by key influencing factors.

4.2 Scale Measurement

4.2.1 Internal Reliability Analysis

Table 4.11: Reliability Test Results

No.	Constructs	Cronbach's Alpha	Number of Items	Reliability Level
1.	Purchase Intention	0.898	4	Good
2.	Attitude	0.901	5	Excellent
3.	Subjective Norms	0.891	5	Good
4.	Perceived Behavioural Control	0.913	5	Excellent
5.	Price	0.846	4	Good
6.	Environmental Knowledge	0.929	5	Excellent

Source: Developed for the research.

Table 4.11 summarizes the reliability test findings for all constructs employed in this research. The constructions' Cronbach's Alpha spans from 0.846 to 0.929, indicating that the measurement items are highly consistent internally. Environmental Knowledge had the highest reliability, with a Cronbach's Alpha of 0.929, followed by Perceived Behavioural Control (0.913) and Attitude (0.901), all of which were highly reliable. Purchase Intention (0.898), Subjective Norms (0.891), and Price (0.846) all demonstrate good reliability levels. Collectively, the findings show that all constructs meet the acceptable threshold of 0.60, supporting the measuring items' reliability and suitability for further statistical analysis.

4.3 Inferential Analyses

4.3.1 Pearson Correlation Coefficient Analysis

Table 4.12: Pearson Correlation Coefficient Results

		Correlations					
		PI	ATT	SN	PBC	P	EK
PI	Pearson Correlation	1	.775**	.718**	.742**	.727**	.706**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001
	N	224	224	224	224	224	224
ATT	Pearson Correlation	.775**	1	.755**	.786**	.749**	.705**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001
	N	224	224	224	224	224	224
SN	Pearson Correlation	.718**	.755**	1	.757**	.766**	.715**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001
	N	224	224	224	224	224	224
PBC	Pearson Correlation	.742**	.786**	.757**	1	.790**	.704**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001
	N	224	224	224	224	224	224
P	Pearson Correlation	.727**	.749**	.766**	.790**	1	.720**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001
	N	224	224	224	224	224	224

EK	Pearson Correlation	.706**	.705**	.715**	.704**	.720**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	
	N	224	224	224	224	224	224
**. Correlation is significant at the 0.01 level (2-tailed).							

Source: Developed for the research.

Table 4.12 illustrates the correlation analysis between the independent variables, namely attitude, subjective norms, perceived behavioural control, price, and environmental knowledge, and the dependent variable, purchase intention. The results demonstrate that all independent variables are significantly correlated with purchase intention at the 0.01 level (2-tailed). With a correlation value (r) of 0.775, attitude shows the strongest relationship among the factors with purchase intention. This is followed by perceived behavioural control ($r = 0.742$), price ($r = 0.727$), and subjective norms ($r = 0.718$). Environmental knowledge displays the weakest, yet still strong, correlation with purchase intention, with an r value of 0.706. Therefore, in this study, the findings suggest that all the independent variables have a strong and significant relationship with purchase intention.

4.3.2 Multiple Linear Regression Analysis

Table 4.13: Multiple Linear Regression Analysis (Model Summary) Results

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.827 ^a	.685	.677	.48455	.685	94.663	5	218	<.001
a. Predictors: (Constant), EK, PBC, SN, ATT, P									
b. Dependent Variable: PI									

Source: Developed for the research.

According to Table 4.13, the R^2 value for this study is 0.685. This means that the five independent factors, namely attitude, subjective norms, perceived behavioural control, price, and environmental knowledge, account for 68.5% of the variance in purchase intention. Other factors not addressed in this study could explain the remaining 31.5% of the variance in purchase intention. Overall, the R^2 value of 0.685 suggests that the model has moderate to strong explanatory power, with selected independent variables explaining a significant proportion of the variance in purchase intention.

Table 4.14: Multiple Linear Regression Analysis (ANOVA) Results

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	111.128	5	22.226	94.663	<.001 ^b
	Residual	51.184	218	.235		
	Total	162.312	223			
a. Dependent Variable: PI						
b. Predictors: (Constant), EK, PBC, SN, ATT, P						

Source: Developed for the research.

The *F* value for the study is 94.663 with a significance level of less than 0.001, as exhibited in Table 4.14. This demonstrates that all independent variables, including attitude, subjective norms, perceived behavioural control, price, and environmental knowledge, have a substantial effect on purchase intention.

Table 4.15: Multiple Linear Regression Analysis (Coefficients) Results

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.287	.182		1.570	.118
	ATT	.351	.072	.341	4.888	<.001
	SN	.111	.070	.109	1.576	.117
	PBC	.157	.071	.161	2.206	.028
	P	.138	.075	.132	1.848	.066
	EK	.172	.059	.180	2.935	.004
a. Dependent Variable: PI						

Source: Developed for the research.

In accordance with Table 4.15, attitude had the greatest standardized beta value ($\beta = 0.341$) with a t -value of 4.888, demonstrating the strongest influence on purchase intention among all independent variables. Environmental knowledge ($\beta = 0.180$) and perceived behavioural control ($\beta = 0.161$) had moderate effects on purchase intention, with t -values of 2.935 and 2.206, respectively. Price ($\beta = 0.132$) and subjective norms ($\beta = 0.109$) have weaker effects, with t -values of 1.848 and 1.576, respectively.

In terms of statistical significance, attitude ($p < 0.001$), perceived behavioural control ($p = 0.028$), and environmental knowledge ($p = 0.004$) have significant relationships with purchase intention as it is ($p < 0.05$). However, subjective norms ($p = 0.117$) and price ($p = 0.066$) are not statistically significant, indicating that these variables have an insignificant impact on consumers' purchase intention.

In general, the data suggest that attitude has the greatest influence on purchase intention, followed by environmental knowledge and perceived behavioural control, with subjective norms and price having lower and statistically negligible effects.

Hence, the following multiple linear equations are formed:

$$\begin{aligned} \text{Purchase Intention} = & 0.287 + 0.351 (\text{Attitude}) + 0.111 (\text{Subjective Norms}) \\ & + 0.157 (\text{Perceived Behavioural Control}) + 0.138 (\text{Price}) + 0.172 \\ & (\text{Environmental Knowledge}) \end{aligned}$$

4.3.3 Multicollinearity Test

Table 4.16: Multicollinearity Test Results

Independent Variables		Collinearity Statistics	
		Tolerance	VIF
1	ATT	.298	3.355
	SN	.305	3.280
	PBC	.270	3.700
	P	.283	3.539
	EK	.386	2.590
a. Dependent Variable: PI			

Source: Developed for the research.

All independent variables have suitable degrees of multicollinearity, according to the collinearity statistics presented in Table 4.16. The tolerance levels range from 0.283 to 0.386, with Variance Inflation Factor (VIF) values ranging from 2.590 to 3.700. These values are within the frequently accepted standards for multicollinearity diagnostics, with tolerance values exceeding 0.10 and VIF values remaining below 10 (Marcoulides and Raykov, 2019). Thus, the findings indicate that multicollinearity is not a problem in this research.

The collinearity data suggest that Environmental Knowledge (EK) had the greatest tolerance value of 0.386 and the lowest VIF value of 2.590, suggesting the least amount of multicollinearity among the independent variables. This is followed by Subjective Norms (SN) with a tolerance value (0.305) and a VIF value (3.28); Attitude (ATT) with a tolerance value (0.298) and a VIF value (3.355); and Price (P) with a tolerance value (0.283) and a VIF value (3.539). Finally, Perceived Behavioural Control (PBC) has the smallest tolerance value (0.270) and the largest VIF value (3.700) of the variables.

Despite these variances, all tolerance and VIF values are within acceptable ranges. This implies that there is no notable multicollinearity among the predictors, and so the variables in the model are suitable for use in multiple linear regression analysis to predict purchase intention (PI).

4.4 Conclusion

The results of the descriptive and inferential analyses carried out throughout the research are presented in this chapter. The findings were presented in a methodical manner to address the research questions and meet the study objectives. The analyses offered a clear overview of the data, emphasizing major patterns and interactions between variables. The subsequent chapter will offer a more complete assessment of the outcomes and their implications.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

The vital findings of this research investigation are presented in this chapter. The next section will also review the research's implications and consequences. The research limitations and recommendations for additional research will be reviewed in the concluding section.

5.1 Discussion of Major Findings

Table 5.1: Summary of the Hypotheses Testing Results

Hypotheses	Significant Value	Results
H1: There is a significant relationship between attitude and purchase intention of Generation Z green skin care products.	$p < .001$ $p < 0.05$	Supported
H2: There is a significant relationship between subjective norms and purchase intention of Generation Z in green skin care products.	$p = 0.117$ $p > 0.05$	Not Supported
H3: There is a significant relationship between perceived behavioural control and purchase intention of Generation Z in green skin care products.	$p = 0.028$ $p < 0.05$	Supported
H4: There is a significant relationship between price and purchase intention of Generation Z in green skin care products.	$p = 0.066$ $p > 0.05$	Not Supported
H5: There is a significant relationship between environmental knowledge and purchase intention of Generation Z in green skin care products.	$p = 0.004$ $p < 0.05$	Supported

Source: Developed for the research.

5.1.1 The Relationship between Attitude and Purchase Intention

Research Objective (RO)1: To examine the relationship between attitude and purchase intention of Generation Z in green skin care products.

Research Question (RQ)1: Is there a relationship between attitude and purchase intention of Generation Z in green skin care products?

Hypothesis (H)1: There is a significant relationship between attitude and purchase intention of Generation Z in green skin care products.

Attitude and purchase intention have a significant relationship ($p < .001$), as demonstrated in Table 5.1. This implies that Generation Z consumers are more likely to acquire a higher intention to buy green skin care products if they have more favorable opinions, attitudes, and feelings about them. This is supported by a previous study conducted by Kosnin et al. (2024), where the authors stressed that having a good attitude about organic beauty products considerably increases consumer purchasing intention. According to the study, when consumers view such things as secure, useful, and trustworthy, their likelihood of acquiring them improves significantly. Moreover, Texeira et al. (2023) discovered that attitude has a substantial impact on customers' intentions to purchase sustainable beauty products, especially when positive views are generated through appealing and reliable online advertising. Furthermore, Nordin and Noriman (2021) observed that positive attitudes of Malaysian domestic beauty businesses significantly increase purchase intention, as customers are more likely to acquire products that they believe are legitimate and associated with their personal beliefs. Together, these results provide credence to the claim that attitude is a powerful predictor of purchase intention, indicating that Generation Z consumers who form favorable opinions about green skin care products are more likely to make purchases. Consequently, the hypothesis H1 is accepted, and the research objective RO1 and the research question RQ1 are answered.

5.1.2 The Relationship between Subjective Norms and Purchase Intention

RO2: To examine the relationship between subjective norms and purchase intention of Generation Z in green skin care products.

RQ2: Is there a relationship between subjective norms and purchase intention of Generation Z in green skin care products?

H2: There is a significant relationship between subjective norms and purchase intention of Generation Z in green skin care products.

Table 5.1 reveals an insignificant relationship between subjective norms and purchase intention ($p = 0.117$). This suggests that actual purchasing decisions of green skin care products for Generation Z consumers may not always be influenced by the opinions of others or social pressure. This is consistent with the findings of Khan and Azam (2016), which showed that subjective norms had no significant effect on Indian consumers' intention to buy halal products. Similarly, Wong et al. (2018) discovered that subjective norms had no substantial influence on Taiwanese consumers' inclinations to purchase subpar meals. Their findings indicated that social pressure or the approval of significant others did not have a substantial influence on shaping buying decisions, as consuming subpar foods has not yet become a socially acceptable or encouraged activity. The researchers emphasized that subjective norms may have a greater impact on consumer intentions if societal acceptance of such choices was increased through community-level awareness and promotion. All of these findings suggest that subjective norms may not be a reliable indicator of purchase intention in situations when social acceptance is scarce, or norms are only developing for Generation Z consumers. Therefore, the hypothesis H2 is rejected, and the research objective RO2 and the research question RQ2 are not answered.

5.1.3 The Relationship between Perceived Behavioural Control and Purchase Intention

RO3: To examine the relationship between perceived behavioural control and purchase intention of Generation Z in green skin care products.

RQ3: Is there a relationship between perceived behavioural control and purchase intention of Generation Z in green skin care products?

H3: There is a significant relationship between perceived behavioural control and purchase intention of Generation Z in green skin care products.

Table 5.1 highlights a significant relationship between perceived behavioural control and purchase intention ($p = 0.028$). This indicates that when Generation Z customers believe in green skin care products, they are more likely to purchase them. This is supported by a study by Karatu and Mat (2015), who found that consumers who believe they have the resources, knowledge, and opportunity to buy green products are more likely to intend to do so, implying that perceived behavioral control is a significant driver of purchase intention. According to Wijaya and Harsoyo (2025), customers' purchase intentions in Indonesia's second-hand clothes market increased dramatically when they felt capable of detecting, assessing, and purchasing products. Collectively, these outcomes show that Generation Z consumers who feel capable and empowered during the purchasing process are more likely to make purchases. This suggests that perceived behavioural control is a significant predictor of purchase intention. Thus, the hypothesis H3 is accepted, and the research objective RO3 and the research question RQ3 are answered.

5.1.4 The Relationship between Price and Purchase Intention

RO4: To examine the relationship between price and purchase intention of Generation Z in green skin care products.

RQ4: Is there a relationship between price and purchase intention of Generation Z in green skin care products?

H4: There is a significant relationship between price and purchase intention of Generation Z in green skin care products.

Table 5.1 depicts that there is an insignificant relationship between price and purchase intention ($p = 0.066$). This suggests that Generation Z customers' intentions to purchase green skin care products may not be heavily influenced by price and Gen Zers are more emphasize in green value. This is reinforced by Arslan and Zaman (2014), who showed that customers at big-box retailers rarely consider pricing a barrier since they believe the costs are reasonable. Similarly, Chan and Wong (2012) observed that the premium price of eco-fashion decreased the influence of attractive product and shop features on customers' willingness to purchase. This suggests that higher costs may reduce purchase intention even when product benefits are recognized. Additionally, in the context of recycled and upcycled fashion items, Park and Lin (2020, as cited in Kopplin and Rösch, 2021) reported a negative relationship between price and purchase intention, highlighting the fact that higher prices can act as a deterrent to purchasing even though consumers may value environmental and social benefits. These results collectively imply that Generation Z consumers' judgments may be influenced more by perceived value, product quality, or ethical considerations than by price, emphasizing that price may not always be a determining factor in purchasing intention. Hence, the hypothesis H4 is rejected, and the research objective RO4 and the research question RQ4 are not answered.

5.1.5 The Relationship between Environmental Knowledge and Purchase Intention

RO5: To examine the relationship between environmental knowledge and purchase intention of Generation Z in green skin care products.

RQ5: Is there a relationship between environmental knowledge and purchase intention of Generation Z in green skin care products?

H5: There is a significant relationship between environmental knowledge and purchase intention of Generation Z in green skin care products.

As portrayed in Table 5.1, purchase intention and environmental knowledge have a significant relationship ($p = 0.004$). This signifies that Generation Z customers are more conscious of environmental issues, and they are more inclined to develop stronger intentions to purchase green skin care items. This is confirmed by the findings of Pardeshi et al. (2024), who argued that customers' intention to buy sustainable apparel is greatly increased by higher levels of environmental knowledge, prior sustainable behaviour, and social influence. According to the study, customers' views and desire to support green products improve when they are informed about environmental issues, such as the effects of rapid fashion and the advantages of eco-friendly alternatives. Additionally, Hariyanto and Alamsyah (2019) found that buyers' intentions to make green purchases in Bandung, Indonesia, were favourably and significantly influenced by environmental knowledge. According to their research, people are more inclined to purchase environmentally friendly items when they are aware of aspects like biodegradability, natural ingredients, and how production practices affect the environment. Moreover, Kusuma and Handayani (2018) noticed that Starbucks consumers in Mataram City who were better informed about environmental issues and the advantages of sustainable solutions were more likely to select green items. Overall, these findings provide persuasive evidence that environmental knowledge has a significant impact on purchase intention, implying that Generation Z customers who are knowledgeable about sustainability are more likely to make environmentally responsible purchases. As a result, the hypothesis H5 is

accepted, and the research objective RO5 and the research question RQ5 are answered.

5.2 Implications of the Study

5.2.1 Practical Implication

Practitioners and marketers in the green skincare sector can benefit from the study's outcomes. For practitioners, this study provides strategic insights on how to prioritize internal psychological variables, particularly attitude, in order to increase Generation Z's purchasing intentions. Identifying attitude as the most significant predictor of intention, with a regression coefficient of 0.351 ($p < .001$), allows executives to create marketing frameworks that generate true favorable appraisals. As every unit increase in positive attitude leads to a significant increase in purchase intention, practitioners should concentrate on making green beauty products appear safe, effective, and trustworthy in order to rapidly enhance consumer interest. Unexpectedly, the study found that subjective norms ($p = 0.117$) and price ($p = 0.066$) have no statistically meaningful link with purchase intention in green skin care products. This shows that social pressure or premium pricing may have an insignificant impact on Malaysian Generation Z's buying intention for green skincare products, allowing marketers to focus more on value-based storytelling rather than competing simply on social trends or price points. Hence, this finding is consistent with the research of Saifudin, Hartiningsih, Lukman, and Hamdan (2026), who argued that social influence has a limited impact on environmentally responsible purchasing behaviour due to low awareness and weak social reinforcement. Furthermore, past studies indicate that environmentally conscious consumers, particularly those in Generation Z, are more motivated by intrinsic values and perceived environmental benefits than by price sensitivity, highlighting the importance of prioritizing authentic value over pricing strategies (Gomes, Lopes, and Nogueira, 2023).

In addition, the study emphasizes the importance of environmental knowledge ($p = 0.004$) and perceived behavioural control ($p = 0.028$), providing a road map for encouraging Generation Z consumers to adopt sustainable practices. Marketers have an important role not just in giving access to products, but also in building consumer trust through transparent ingredient declarations and education (Ali, Dakshinamurthy, Priyadarshi, Mittal, Nandhakumar, and Sanjay, 2025). By offering consistent and easily available environmental information, brands may help bridge knowledge gaps and lessen mistrust about greenwashing (Suphasomboon and Vassanadumrongdee, 2025). This fosters a more supportive environment in which Generation Z consumers feel encouraged to try out eco-friendly alternatives and progressively build the green competencies required to sustain long-term behavioural change.

From a broader perspective, this study is especially significant to policymakers and sustainability advocates, considering the country's sustainability agenda and goal of boosting eco-friendly purchasing patterns; it aligns with Sustainable Development Goal (SDG) 12: Responsible Consumption and Production (Nazibudin, Sabri, and Manaf, 2025). Policymakers can use these findings to create forward-thinking legislation and digital transformation strategies that ensure green product uptake contributes to environmental integrity while eliminating "greenwashing" (Şenyapar, 2024; Zhan, Lian, and Dai, 2025). This study's particular recommendations can help guide targeted national environmental education activities aimed at developing sustainable behaviours in future generations. Furthermore, the findings suggest the formation of public-private partnerships aimed at increasing sustainability literacy and encouraging the growth of local green SMEs in the Malaysian beauty industry.

5.2.2 Theoretical Implication

Icek Ajzen's extended Theory of Planned Behaviour (TPB) served as the theoretical foundation for the conceptual framework in this study. This study looked at how internal cognitive and behavioural characteristics, such as attitude, environmental knowledge, and perceived behavioural control (PBC), influence Generation Z consumers' purchase intentions for green skincare products. The findings, which show that attitude, perceived behavioural control (PBC), and environmental knowledge all have a significant effect on purchase intention, lend support to the extended TPB model and reinforce the theory that individual beliefs, awareness, and perceived ability can drive consumer decision-making in sustainable consumption contexts.

In contrast to previous research, the evidence concludes that subjective norms and price have no substantial effect on purchase intention (Chan and Wong, 2012; Arslan and Zaman, 2014; Khan and Azam, 2016; Wong et al., 2018). This implies that, whereas social influence and economic factors are frequently thought to impact customer behaviour, they are not the key drivers of purchase intention in this case. Hence, the findings show that Generation Z consumers make selections about green skincare products based on internal evaluations rather than external constraints or cost-related concerns.

5.3 Limitations of the Study

5.3.1 Quantitative Self-Reported Survey Data

The data for this study were gathered by self-administered questionnaires, which rely primarily on respondents' personal judgments and honesty. Furthermore, some respondents may have misread specific questionnaire items or did not appropriately assess their own purchase intentions or level of environmental knowledge (Naser, 2024). This could have an impact on the findings' validity and ability to precisely reflect actual consumer behaviour, as responses are significantly influenced by each respondent's unique understanding and interpretation of the questions. In certain cases, differences in reading comprehension, familiarity with green skincare principles, or attention span during survey completion may have altered how questions were interpreted and answered. As a result, the data collected may not fully reflect the complexities of real-world purchasing decisions, which are frequently influenced by situational considerations and actual conduct in real-life contexts rather than just by stated intentions in a questionnaire setting.

5.3.2 Limited Scope of Independent Variables and Theories

This research focused on a narrow set of independent variables, including attitude, subjective norms, perceived behavioural control, price, and environmental knowledge. While these variables were carefully chosen based on the extended Theory of Planned Behaviour (TPB) and relevant literature, they may not fully capture all aspects impacting Generation Z customers' purchase intentions for green skincare products. Consumer behaviour is complicated, particularly when it comes to sustainable consumption, and it can be impacted by several psychological, social, and contextual aspects that are beyond the scope of this study. Furthermore, depending on a single theoretical framework, namely the extended TPB,

could restrict the thoroughness of the analysis. Although the Theory of Planned Behaviour (TPB) is commonly applied to describe behavioural intentions, it may not encompass all motivations and external influences pertinent to green purchasing behaviour. This study's findings should be understood in relation to the chosen variables and theoretical framework.

5.3.3 Influence of Age Demographic

This study is concerned with the homogeneity of age demographics within the sample, which is solely made up of Malaysian Generation Z respondents. While this cohort is an important driver of the green skincare sector, their status as digital natives and their life stage may have influenced the results. Many of these respondents are at a transitional stage of life, with fewer financial responsibilities and broader exposure to sustainability-focused social media (Horrich, Ertz, and Bekir, 2025). The findings that price ($p = 0.066$) and subjective norms ($p = 0.117$) were not significant predictors of purchase intention may represent a distinguishing feature of this generation's values and digital social structures. As a result, the findings may have limited external validity in the larger Malaysian community since they do not account for the various socioeconomic pressures, historic brand loyalties, or social values held by older consumer groups. Due to this demographic restriction, the current model may not correctly reflect the entire market's decision-making processes.

5.4 Recommendations for Future Research

5.4.1 Adoption of Mixed-Methods Approach

According to Wasti, Simkhada, Teijlingen, Sathian, and Banerjee (2022), future research should use a mixed-methods approach that combines quantitative surveys with qualitative techniques such as interviews or focus groups. This method is especially beneficial in resolving the constraints of self-reported survey data, which can be influenced by individual interpretation and understanding of questionnaire items. While the current study finds statistical relationships between crucial variables, it fails to completely explain the motivation behind respondents' responses. Moreover, qualitative approaches could supplement survey results by investigating how Generation Z customers interpret green skincare products, comprehend environmental information, and make purchasing decisions in real-world settings. Interviews or focus groups would allow for a more in-depth investigation of consumer motives and decision-making processes, potentially improving the interpretation of quantitative results (Guest, Namey, Taylor, Eley, and McKenna, 2017). Overall, merging the two approaches would increase the depth and reliability of findings in sustainable consumption research.

5.4.2 Inclusion of Independent Variables and Theories

Future research should widen the scope of variables by including constructs from the Value-Belief-Norm (VBN) theory or the Diffusion of Innovation (DOI) model. This technique could provide a more comprehensive understanding of the elements driving Generation Z's shift from green purchase intention to real purchasing behaviour in Malaysia's skincare market. Specifically, incorporating variables such as environmental concern, brand trust, and perceived consumer effectiveness could considerably improve knowledge of user behaviour beyond typical TPB constructs. By

including these variables in the theoretical framework, future research will be able to capture not just cognitive evaluations and perceived control characteristics, but also psychological, ethical, and lifestyle factors that drive or impede the adoption of sustainable beauty products. Furthermore, investigating other factors might solve the current study's lack of comprehensiveness, giving a more nuanced roadmap for how deeply held values transfer into long-term environmental responsibility.

5.4.3 Demographic and Generational Expansion

Further research is recommended to broaden the sample frame through a comparative generational analysis. This technique would overcome the current study's shortcoming of focusing primarily on Malaysian Generation Z consumers by giving a more thorough understanding of green skincare purchasing intention across age groups. Future study could adapt the Extended Theory of Planned Behaviour (TPB) framework to various generational cohorts, such as Millennials (Generation Y), Generation X, and Baby Boomers, allowing for relevant cross-generation comparisons. This expansion would allow researchers to investigate whether internal psychological factors such as attitude, perceived behavioural control, and environmental knowledge remain the primary determinants of purchase intention across different life stages, or whether external influences such as subjective norms and price become more influential among older generations with different financial responsibilities and consumption experiences. This would also aid in identifying potential differences in environmental awareness and purchasing incentives across generations, allowing for a more comprehensive understanding of consumer behaviour in Malaysia's green skincare sector.

5.5 Conclusion

The chapter presented the primary findings in detail of this study, which validated the significant relationships between attitude, perceived behavioural control, environmental knowledge, and purchase intentions in the Malaysian skincare sector. While admitting its limitations, the study highlights the importance of continuous research to gain a better understanding of how Generation Z's distinct beliefs are influencing the future of sustainable consumption. Finally, these findings demonstrate the potential for ethical branding and green product innovation to alter the beauty business, guaranteeing that high environmental awareness leads to long-term responsible purchase behaviour.

REFERENCES

- Abbasi, G. A. (2021). Attributes tempting students' online purchase intention; the mediating role of pre-purchase Searching. *International Journal of Electronic Commerce Studies*, 12(2), 159. <https://doi.org/10.7903/ijecs.1841>
- Abdul Rahim, F., Goh, P. J., & Cheah, L. F. (2019). Malaysian Coffee Culture: Attributes considered to purchase coffee beverages. *Journal of Marketing Advances and Practices*, 1(1), 50-62.
- Abu Bakar, N., Rosbi, S., Hashim, H., & Che Arshad, N. (2021). Factors Influencing Students Intention to Choose Career of Halal Food Industry in Malaysia using Theory of Planned Behavior. *The International Journal of Management Science and Business Administration*, 8(1), 50–67. <https://doi.org/10.18775/ijmsba.1849-5664-5419.2014.81.1005>
- Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: Why and How of it? *Indian Journal of Medical Specialities*, 4(2), 330–333. <https://doi.org/10.7713/ijms.2013.0032>
- Ahmad, S., Wasim, S., Irfan, S., Gogoi, S., Srivastava, A., & Farheen, Z. (2019). Qualitative v/s. Quantitative Research - a Summarized Review. *Journal of Evidence Based Medicine and Healthcare*, 6(43), 2828–2832. <https://journals.indexcopernicus.com/api/file/viewById/916903.pdf>
- Ahmed, F., Ali, I., Kousar, S., & Ahmed, S. (2022). The environmental impact of industrialization and foreign direct investment: Empirical evidence from asia-pacific region. *Environmental Science and Pollution Research*, 29(20), 29778–29792. <https://doi.org/10.1007/s11356-021-17560-w>
- Ahmed, N. (2019). Generation Z's Smartphone and Social Media Usage: a Survey. *Journalism and Mass Communication*, 9(3). <https://doi.org/10.17265/2160-6579/2019.03.001>
- Ahmed, S. K. (2024). Research methodology simplified: How to choose the right sampling technique and determine the appropriate sample size for research. *Oral Oncology Reports*, 12(100662), 1–7. <https://doi.org/10.1016/j.oor.2024.100662>
- Ajayi, V. O. (2023). A Review on Primary Sources of Data and Secondary Sources of Data. *SSRN Electronic Journal*, 2(3). <https://doi.org/10.2139/ssrn.5378785>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)

- Ajzen, I., & Fishbein, M. (2000). Attitudes and the Attitude-Behavior Relation: Reasoned and Automatic Processes. *European Review of Social Psychology*, 11(1), 1–33. <https://doi.org/10.1080/14792779943000116>
- Akdogan, C. (2021, September 12). *A Study on The Effect of Price On Consumer Purchase Decision-Making*. ResearchGate. https://www.researchgate.net/publication/356635290_A_Study_on_The_Effect_of_Price_On_Consumer_Purchase_Decision-Making
- Akinwande, M. O., Dikko, H. G., & Samson, A. (2015). Variance Inflation Factor: As a Condition for the Inclusion of Suppressor Variable(s) in Regression Analysis. *Open Journal of Statistics*, 5(7), 754–767. <https://doi.org/10.4236/ojs.2015.57075>
- Al Mamun, A., Che Nawi, N., Hayat, N., & Zainol, N. R. B. (2020). Predicting the Purchase Intention and Behaviour towards Green Skincare Products among Malaysian Consumers. *Sustainability*, 12(24), 10663. <https://doi.org/10.3390/su122410663>
- Al Mamun, A., Shawon, M. L., & Hamid, M. K. (2024). Purchase Intention and Buying Behaviour of Green Skincare Products: A Study on Bangladeshi Consumers. *FASS INQUEST*, 4(2), 117-142
- Alabi, O., & Bukola, T. M. (2023). Introduction to Descriptive Statistics. *IntechOpen EBooks*. <https://doi.org/10.5772/intechopen.1002475>
- Alam, S. S., Ahmad, M., Ho, Y.-H., Omar, N. A., & Lin, C.-Y. (2020). Applying an Extended Theory of Planned Behavior to Sustainable Food Consumption. *Sustainability*, 12(20), 8394. <https://doi.org/10.3390/su12208394>
- Albarracin, D., Sunderrajan, A., McCulloch, K. C., & Jones, C. (2020). Mistaking an Intention for a Behavior: The Case of Enacting Behavioral Decisions Versus Simply Intending to Enact Them. *Personality and Social Psychology Bulletin*, 47(3), 455–467. <https://doi.org/10.1177/0146167220929203>
- Alem, D. D. (2020). An overview of data analysis and interpretations in research. *International Journal of Academic Research in Education and Review*, 8(1), 1–27.
- Alex, D. (2025, August 31). *What is a Research Instrument: Examples and Types*. Paperpal Blog. <https://paperpal.com/blog/researcher-resources/what-is-a-research-instrument-examples-and-types>
- Ali, S. M. S., Dakshinamurthy, T., Priyadarshi, P., Mittal, M., Nandhakumar, S., & Sanjay, K. (2025). Consumer Trust In Digital Brands: The Role Of Transparency And Ethical Marketing. *Advances in Consumer Research*, 2(1), 106-114

- Althubaiti, A. (2022). Sample Size determination: a Practical Guide for Health Researchers. *Journal of General and Family Medicine*, 24(2), 72–78. <https://doi.org/10.1002/jgf2.600>
- Amberg, N., & Fogarassy, C. (2019). Green Consumer Behavior in the Cosmetics Market. *Resources*, 8(3), 137. <https://doi.org/10.3390/resources8030137>
- Amelia, R. (2024). Green marketing and its influence on green consumption, environmental knowledge, brand coolness, and purchase intention of environmentally friendly skincare brands. *Indonesian Development of Economics and Administration Journal*, 2(3), 386–400. <https://doi.org/10.70001/idea.v2i3.188>
- Amoako, G. K., Dzogbenuku, R. K., & Abubakari, A. (2020). Do green knowledge and attitude influence the youth's green purchasing? Theory of planned behavior. *International Journal of Productivity and Performance Management*, 69(8), 1609–1626. <https://doi.org/10.1108/ijppm-12-2019-0595>
- An, G. K., & Ngo, T. T. A. (2025). Uncovering the influence of social media marketing activities on Generation Z's purchase intentions and eWOM for organic cosmetics. *PLOS One*, 20(6), e0325953. <https://doi.org/10.1371/journal.pone.0325953>
- Andrade, C. (2020). Sample Size and Its Importance in Research. *Indian Journal of Psychological Medicine*, 42(1), 102–103. https://doi.org/10.4103/IJPSYM.IJPSYM_504_19
- Anjana, B. S., & Prasad, A. K. (2021). Scales of Measurement in Research. *Introduction to Research in Social Sciences*. https://www.academia.edu/50907925/Scales_of_Measurement_in_Research
- Anshu, K., Gaur, L., & Singh, G. (2022). Impact of Customer Experience on Attitude and Repurchase Intention in Online Grocery retailing: a Moderation Mechanism of Value Co-creation. *Journal of Retailing and Consumer Services*, 64(102798). <https://doi.org/10.1016/j.jretconser.2021.102798>
- Aoki, T., & Matsui, A. (2025). Does algorithmic recommendation complement or substitute advertising and influencers? Consumer attitudes toward recommendation information and the formation of purchase intentions. *Computers in Human Behavior*, 172, 108735. <https://doi.org/10.1016/j.chb.2025.108735>

- Arslan, M., & Zaman, R. (2014). Impact of Brand Image and Service Quality on Consumer Purchase Intention: A Study of Retail Store in Pakistan. *Research on Humanities and Social Sciences*, 4(22), 98–105. https://www.researchgate.net/publication/267636917_Impact_of_Brand_Image_and_Service_Quality_on_Consumer_Purchase_Intention_A_Study_of_Retail_Store_in_Pakistan
- Asadi Zarch, M. R., Makian, S., & Najjarzadeh, M. (2023). Multidimensional interdisciplinary variables influencing tourist online purchasing intention at World Heritage City (City of Yazd, Iran). *SN Business & Economics*, 3(2). <https://doi.org/10.1007/s43546-022-00399-9>
- Awuni, J., Du, J., & Yiranbon, E. (2016). Factors Influencing Green Purchasing Behaviors: Some Insights from Tamale, Ghana. *British Journal of Economics, Management & Trade*, 14(4), 1–12. <https://doi.org/10.9734/bjemt/2016/27676>
- Baltacı, D. Ç., Durmaz, Y., & Baltacı, F. (2025). The mediating role of attitudes in the effect of human and environment-centered value orientation on green cosmetic product purchasing behavior: comparison of different countries. *Environment Development and Sustainability*. <https://doi.org/10.1007/s10668-025-06173-9>
- Banerjee, A., & Chaudhury, S. (2010). Statistics without tears: Populations and Samples. *Industrial Psychiatry Journal*, 19(1), 60–65. <https://pmc.ncbi.nlm.nih.gov/articles/PMC3105563/>
- Barbera, F. L., & Ajzen, I. (2020). Control interactions in the theory of planned behavior: Rethinking the role of subjective norm. *Europe's Journal of Psychology*, 16(3), 401–417. <https://doi.org/10.5964/ejop.v16i3.2056>
- Bazhan, M., Sabet, F. S., & Borumandnia, N. (2024). Factors affecting purchase intention of organic food products: Evidence from a developing nation context. *Food Science and Nutrition*, 12(5). <https://doi.org/10.1002/fsn3.4015>
- Beneke, J., & Zimmerman, N. (2014). Beyond private label panache: the effect of store image and perceived price on brand prestige. *Journal of Consumer Marketing*, 31(4), 301–311. <https://doi.org/10.1108/jcm-12-2013-0801>
- Bergquist, M., & Nilsson, A. (2019). The DOs and DON'Ts in social norms: A descriptive don't-norm increases conformity. *Journal of Theoretical Social Psychology*, 3(3), 158–166. <https://doi.org/10.1002/jts5.43>
- Bhandari, P. (2020, May 14). *Population vs sample: what's the difference?* Scribbr. <https://www.scribbr.com/methodology/population-vs-sample/>
- Bhandari, P. (2021, July 15). *Questionnaire Design | Methods, Question Types & Examples*. Scribbr. <https://www.scribbr.com/methodology/questionnaire/>

- Borah, P. S., Dogbe, C. S. K., & Marwa, N. (2024). Generation Z's green purchase behavior: Do green consumer knowledge, consumer social responsibility, green advertising, and green consumer trust matter for sustainable development? *Business Strategy and the Environment*, 33(5). <https://doi.org/10.1002/bse.3714>
- Borges-Tiago, M. T., Almeida, A., Gomes, F., & Moreira, M. (2024). Bridging the innovative Attitude–Behavior Gap: A dual-level analysis. *Journal of Innovation & Knowledge*, 9(4), 100561–100561. <https://doi.org/10.1016/j.jik.2024.100561>
- Bradley, S. H., DeVito, N. J., Lloyd, K. E., Richards, G. C., Rombey, T., Wayant, C., & Gill, P. J. (2020). Reducing bias and improving transparency in medical research: a critical overview of the problems, progress and suggested next steps. *Journal of the Royal Society of Medicine*, 113(11), 433–443. <https://doi.org/10.1177/0141076820956799>
- Brandão, A., & Costa, A. G. da. (2021). Extending the Theory of Planned Behaviour to Understand the Effects of Barriers Towards Sustainable Fashion Consumption. *European Business Review*, 33(5), 742–774. <https://doi.org/10.1108/ebrev-11-2020-0306>
- Bryman, A. (2016). *Social Research Methods* (5th ed.). Oxford University Press. <https://ktpu.kpi.ua/wp-content/uploads/2014/02/social-research-methods-alan-bryman.pdf>
- Bujang, M. A., Omar, E. D., & Baharum, N. A. (2018). A review on sample size determination for cronbach's alpha test: A simple guide for researchers. *Malaysian Journal of Medical Sciences*, 25(6), 85–99. <https://doi.org/10.21315/mjms2018.25.6.9>
- Bujang, M. A., Omar, E. D., Foo, D. H. P., & Hon, Y. K. (2024). Sample size determination for conducting a pilot study to assess reliability of a questionnaire. *Restorative Dentistry and Endodontics*, 49(1). <https://doi.org/10.5395/rde.2024.49.e3>
- Burton, A. L. (2021). OLS (Linear) Regression. *The Encyclopedia of Research Methods in Criminology and Criminal Justice*, 2, 509–514. <https://doi.org/10.1002/9781119111931.ch104>
- Candrianto C, Aimon H, & Sentosa S.U. (2023). The role of knowledge, awareness and environmental attitudes in green product management. *Global Journal of Environmental Science and Management (GJESM)*, 9(1), 101–112. <https://www.sid.ir/paper/1056294/en>
- Caniëls, M. C. J., Lambrechts, W., Platje, J., Motylska-Kuźma, A., & Fortuński, B. (2021). Impressing my friends: The role of social value in green purchasing attitude for youthful consumers. *Journal of Cleaner Production*, 303(3), 126993. <https://doi.org/10.1016/j.jclepro.2021.126993>

- Cao, D., Zheng, Y., & Li, G. (2023). Understanding food pleasure in organic consumption: the moderating effects of trust within the theory of planned behavior. *British Food Journal*, *126*(2). <https://doi.org/10.1108/bfj-02-2023-0162>
- Chan, T., & Wong, C. W. Y. (2012). The consumption side of sustainable fashion supply chain. *Journal of Fashion Marketing and Management: An International Journal*, *16*(2), 193–215. <https://doi.org/10.1108/13612021211222824>
- Chaney, D., Touzani, M., & Ben Slimane, K. (2017). Marketing to the (new) generations: summary and perspectives. *Journal of Strategic Marketing*, *25*(3), 179–189. <https://doi.org/10.1080/0965254x.2017.1291173>
- Charton-Vachet, F., Lombart, C., & Louis, D. (2020). Impact of attitude towards a region on purchase intention of regional products: the mediating effects of perceived value and preference. *International Journal of Retail & Distribution Management*, *48*(7), 707–725. <https://doi.org/10.1108/ijrdm-09-2019-0315>
- Chen, B., & Madni, G. R. (2023). Achievement of sustainable environment through effectiveness of social media in Z generation of China. *PLoS ONE*, *18*(11), 1–18. <https://doi.org/10.1371/journal.pone.0292403>
- Chen, L. (2013). A Study of Green Purchase Intention Comparing with Collectivistic (Chinese) and Individualistic (American) Consumers in Shanghai, China. *Information Management and Business Review*, *5*(7), 342–346. <https://doi.org/10.22610/imbr.v5i7.1061>
- Chen, M.-F., & Tung, P.-J. (2014). Developing an extended Theory of Planned Behavior model to predict consumers' intention to visit green hotels. *International Journal of Hospitality Management*, *36*(1), 221–230.
- Chen, X. M., Sharma, A., & Liu, H. (2023). The Impact of Climate Change on Environmental Sustainability and Human Mortality. *Environments*, *10*(10), 165–165. <https://doi.org/10.3390/environments10100165>
- Chin, J., Jiang, B., Mufidah, I., Persada, S., & Noer, B. (2018). The Investigation of Consumers' Behavior Intention in Using Green Skincare Products: A Pro-Environmental Behavior Model Approach. *Sustainability*, *10*(11), 3922. <https://doi.org/10.3390/su10113922>
- Chitranapawong, K., & Chirapanda, S. (2025). The Impact of Consumer Attitudes, Subjective Norms, Brand Trust, Repurchase Intention and Repurchase Behaviors of Gen X and Gen Y Consumers: A Study of Life Insurance in Thailand. *Journal of Posthumanism*, *5*(2). <https://doi.org/10.63332/joph.v5i2.435>

- Chu, K. M. (2018). Mediating Influences of Attitude on Internal and External Factors Influencing Consumers' Intention to Purchase Organic Foods in China. *Sustainability*, 10(12), 4690. <https://doi.org/10.3390/su10124690>
- Chu, K. W. K. (2020). The green gap of high-involvement purchasing decisions: an exploratory study. *Asian Journal of Business Ethics*, 9(2), 371–394. <https://doi.org/10.1007/s13520-020-00115-6>
- Clootrack. (2025). *Major factors influencing consumer behavior*. Clootrack. <https://www.clootrack.com/knowledge/customer-behavior-analytics/major-factors-influencing-consumer-behavior>
- Costa, M. (2022, October 4). *What is primary data? And how do you collect it?* SurveyCTO. <https://www.surveyccto.com/data-collection-quality/primary-data-collection/>
- Daoud, J. I. (2017). Multicollinearity and Regression Analysis. *Journal of Physics: Conference Series*, 949(1). <https://doi.org/10.1088/1742-6596/949/1/012009>
- Daud, F. N. M., & Hee, O. C. (2021). The Mediating Role of Brand Love in Predicting Green Purchase Behaviour of Organic Cosmetic Products. *International Journal of Academic Research in Business and Social Sciences*, 11(6). <https://doi.org/10.6007/ijarbss/v11-i6/8487>
- Daud, K. A. M., Khidzir, N. Z., Ismail, A. R., & Abdullah, F. A. (2018). Validity and reliability of instrument to measure social media skills among small and medium entrepreneurs at Pengkalan Datu River. *International Journal of Development and sustainability*, 7(3), 1026-1037.
- Delafrooz, N., Taleghani, M., & Nouri, B. (2014). Effect of green marketing on consumer purchase behavior. *QScience Connect*, 2014(2014), 5. <https://doi.org/10.5339/connect.2014.5>
- Delistavrou, A., Papaioannou, E., & Assimakopoulos, C. (2022). Consumers' decision to purchase online ecological personal care products: a moderated TPB model. *Int. Journal of Business Science and Applied Management*, 17(2), 34–47. <https://doi.org/10.69864/ijbsam.17-2.166>
- Dikko, M. (2016). Establishing Construct Validity and Reliability: Pilot Testing of a Qualitative Interview for Research in Takaful (Islamic Insurance). *The Qualitative Report*, 21(3). <https://doi.org/10.46743/2160-3715/2016.2243>
- Dilotsotlhe, N., & Inseng, H. D. (2020). Examining drivers of green appliance adoption using two theories among middle class consumers. *Journal of Business and Retail Management Research*, Volume 14(Issue 03). <https://doi.org/10.24052/JBRMR/V14IS03/ART-07>

- Dirwan, D., & Latief, F. (2023). Understanding the Psychology Behind Consumer Behavior. *Advances in Business & Industrial Marketing Research*, 1(3), 130–145. <https://doi.org/10.60079/abim.v1i3.201>
- Dolot, A. (2018). The Characteristics of Generation Z. *E-Mentor*, 2(74), 44–50. <https://doi.org/10.15219/em74.1351>
- Dong, L., Ji, T., Zhou, G., & Zhang, J. (2022). Subjective Norms or Psychological Empowerment? Moderation Effect of Power Distance on Knowledge Sharing. *Sustainability*, 14(21), 14407. <https://doi.org/10.3390/su142114407>
- Dorce, L. C., da Silva, M. C., Mauad, J. R. C., de Faria Domingues, C. H., & Borges, J. A. R. (2021). Extending the theory of planned behavior to understand consumer purchase behavior for organic vegetables in Brazil: The role of perceived health benefits, perceived sustainability benefits and perceived price. *Food Quality and Preference*, 91(2), 104191. <https://doi.org/10.1016/j.foodqual.2021.104191>
- Elfil, M., & Negida, A. (2017). Sampling Methods in Clinical Research; an Educational Review. *The Journal of Emergency*, 5(1). <https://doi.org/10.22037/emergency.v5i1.15215>
- Emekci, S. (2019). Green consumption behaviours of consumers within the scope of TPB. *Journal of Consumer Marketing*, 36(3), 410–417. <https://doi.org/10.1108/jcm-05-2018-2694>
- Ertz, M., Favier, R., Robinot, É., & Sun, S. (2021). To waste or not to waste? Empirical study of waste minimization behavior. *Waste Management*, 131(2), 443–452. <https://doi.org/10.1016/j.wasman.2021.06.032>
- Eunike, I. J., Silalahi, A. D. K., Phuong, D. T. T., & Tedjakusuma, A. P. (2025). Towards a Holistic Model of Green Consumerism by Integrating Ethical Obligations, Collective Efficacy, and Environmental Concerns in Sustainable Purchase Behavior. *Sustainable Futures*, 100746. <https://doi.org/10.1016/j.sfr.2025.100746>
- Evans, J. R., & Mathur, A. (2018). The Value of Online Surveys: a Look Back and a Look Ahead. *Internet Research*, 28(4), 854–887. Emerald. <https://doi.org/10.1108/intr-03-2018-0089>
- Faber, J., & Fonseca, L. M. (2014). How Sample Size Influences Research Outcomes. *Dental Press Journal of Orthodontics*, 19(4), 27–29. <https://pubmed.ncbi.nlm.nih.gov/articles/PMC4296634/>
- Filip, A., Stancu, A., Onișor, L.-F., Mogoș, O. C., Catană, Ș.-A., & Goldbach, D. (2025). Drivers of Purchase Intentions of Generation Z on Eco-Products. *Sustainability*, 17(2), 629–629. <https://doi.org/10.3390/su17020629>

- Firdausi, A. S. M., Rahma, R. S., & Afriani, L. N. (2023). Consumers' Intention to Switch from Green and Conventional Cosmetics. *International Research Journal of Business Studies*, 16(1), 83–98. <https://doi.org/10.21632/irjbs.16.1.83-98>
- Fortune Business Insights. (2025). *Cosmetics Market Size, Industry Share | Analysis Report, 2026*. www.fortunebusinessinsights.com. <https://www.fortunebusinessinsights.com/cosmetics-market-102614>
- Francis, T., & Hoefel, F. (2018, November 12). *True gen: Generation Z and Its Implications for Companies*. McKinsey & Company. <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/true-gen-generation-z-and-its-implications-for-companies>
- Franzen, M. D. (2011). Test Reliability. In *Encyclopedia of Clinical Neuropsychology* (pp. 2496–2497). Springer, New York, NY. https://doi.org/10.1007/978-0-387-79948-3_2241
- Galván-Mendoza, O., González-Rosales, V. M., Leyva-Hernández, S. N., Arango-Ramírez, P. M., & Velasco-Aulcy, L. (2022). Environmental knowledge, perceived behavioral control, and employee green behavior in female employees of small and medium enterprises in Ensenada, Baja California. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1082306>
- Ghanad, A. (2023, August 8). *An Overview of Quantitative Research Methods*. *International Journal of Multidisciplinary Research and Analysis*. <https://doi.org/10.47191/ijmra/v6-i8-52>
- Ghazali, E., Soon, P. C., Mutum, D. S., & Nguyen, B. (2017). Health and cosmetics: Investigating consumers' values for buying organic personal care products. *Journal of Retailing and Consumer Services*, 39(1), 154–163. <https://doi.org/10.1016/j.jretconser.2017.08.002>
- Goel, D., Gujral, M., Jaiswal, P., & Yadav, A. (2025). A review of men's intention to buy green personal care products. *International Journal of Advanced Academic Studies*, 7(3), 91–99. <https://doi.org/10.33545/27068919.2025.v7.i3b.1396>
- Goh, S. K., & Balaji, M. S. (2016). Linking Green Skepticism to Green Purchase Behavior. *Journal of Cleaner Production*, 131(10), 629–638. <https://doi.org/10.1016/j.jclepro.2016.04.122>
- Golzar, J., Tajik, O., & Noor, S. (2022). Convenience sampling. *International Journal of Education and Language Studies*, 1(2), 72–77. <https://doi.org/10.22034/ijels.2022.162981>
- Gomes, S., Lopes, J. M., & Nogueira, S. (2023). Willingness to Pay More for Green products: a Critical Challenge for Gen Z. *Journal of Cleaner Production*, 390(136092). <https://doi.org/10.1016/j.jclepro.2023.136092>

- Gonçalves, S. C., Barbosa, B., & Rocha, A. (2019). Perceptions and Intentions of Adopting the Internet of Things by Generation Z. *CBU International Conference Proceedings*, 7. <https://doi.org/10.12955/cbup.v7.1346>
- Guest, G., Namey, E., Taylor, J., Eley, N., & McKenna, K. (2017). Comparing Focus Groups and Individual interviews: Findings from a Randomized Study. *International Journal of Social Research Methodology*, 20(6), 693–708.
- Guetterman, T. C. (2019). Basics of Statistics for Primary Care Research. *Family Medicine and Community Health*, 7(2). <https://doi.org/10.1136/fmch-2018-000067>
- Gupta, A., Stead, T. S., & Ganti, L. (2024). Determining a Meaningful R-squared Value in Clinical Medicine. *Academic Medicine & Surgery*. <https://doi.org/10.62186/001c.125154>
- Gurunathan, R. (2025). The Role of Emotional Branding in Influencing Consumer Decision-Making Processes. *IJFMR250450794*, 7(4). <https://www.ijfmr.com/papers/2025/4/50794.pdf>
- Hafiz, K. A., & Ali, K. A. M. (2018). The Influence of Marketing Stimuli on Consumer Purchase Decision of Malaysia's Cosmetic Industry. *International Journal of Supply Chain Management*, 7(5), 564–571. https://www.researchgate.net/publication/328926041_The_Influence_of_Marketing_Stimuli_on_Consumer_Purchase_Decision_of_Malaysia
- Hagger, M. S., Cheung, M. W.-L. ., Ajzen, I., & Hamilton, K. (2022). Perceived behavioral control moderating effects in the theory of planned behavior: A meta-analysis. *Health Psychology*, 41(2), 155–167. <https://doi.org/10.1037/hea0001153>
- Hammel, W. (2025). Research Design and Methodology. In *Springer eBooks* (pp. 47–56). Springer Gabler, Wiesbaden. https://doi.org/10.1007/978-3-658-48912-0_5
- Han, H., & Kim, Y. (2010). An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior. *International Journal of Hospitality Management*, 29(4), 659–668. <https://doi.org/10.1016/j.ijhm.2010.01.001>
- Hariyanto, O. I. B., & Alamsyah, D. P. (2019). The Relationship Of Environmental Knowledge And Green Purchase Intention. *International Journal of Engineering and Advanced Technology*, 8(5C), 142–144. <https://doi.org/10.35940/ijeat.e1020.0585c19>
- Hassali, M. A., Al-Tamimi, S. K., Dawood, O. T., & Verma, A. K. (2015). Malaysian Cosmetic Market: Current and Future Prospects. *Pharmaceutical Regulatory Affairs: Open Access*, 04(04). <https://doi.org/10.4172/2167-7689.1000155>

- Hassan, H. M. K., Das, S., & Quader, M. S. (2021). Evaluating Students' Behavioral Intentions Towards Ecotourism: an Extended Theory Of Planned Behavior Perspective. *Tourism Review International*, 25(4), 403–418. <https://doi.org/10.3727/154427221x16245632411944>
- Hazeera, B. W. (2024, August 20). *Climate Change in Southeast Asia: Demands for Sustainability*. Aseanscan. <https://aseanscan.com/2024/08/20/climate-change-in-southeast-asia-rising-temperatures-reflect-rising-demands-for-sustainable-action/>
- Hertzog, M. A. (2008). Considerations in Determining Sample Size for Pilot Studies. *Research in Nursing & Health*, 31(2), 180–191. <https://doi.org/10.1002/nur.20247>
- Hill, H., & Lynchehaun, F. (2002). Organic milk: attitudes and consumption patterns. *British Food Journal*, 104(7), 526–542. <https://doi.org/10.1108/00070700210434570>
- Hoo, W. C., Lean, N. G., Ng, A. H. H., Liau, C. H., Ho, R. C., & Prompanyo, M. (2024). Determinants of Green Cosmetic Purchase Intentions in Malaysia. *Pakistan Journal of Life and Social Sciences (PJLSS)*, 22(2). <https://doi.org/10.57239/pjlss-2024-22.2.00278>
- Horrich, A., Ertz, M., & Bekir, I. (2025). Exploring the role of social media in shaping sustainable consumer behavior: a qualitative study. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2560648>
- Hsu, C.-L., Chang, C.-Y., & Yansritakul, C. (2017). Exploring purchase intention of green skincare products using the theory of planned behavior: Testing the moderating effects of country of origin and price sensitivity. *Journal of Retailing and Consumer Services*, 34(1), 145–152. <https://doi.org/10.1016/j.jretconser.2016.10.006>
- Indajang, K., Candra, V., Sianipar, M. Y., Sembiring, L. D., & Simatupang, S. (2023). The Effect of Service Quality and Price on Customer Satisfaction. *Ekonomi, Keuangan, Investasi Dan Syariah (EKUITAS)*, 4(3), 942–950. <https://doi.org/10.47065/ekuitas.v4i3.3090>
- Isbahi, M. B., Pertiwi, T. K., & Purwanto, S. (2024). The Role of Green Brand Image Awareness and Environmental Awareness on Purchasing Decisions by Controlling the Behavior of Potential Consumers of the Body Shop Mojokerto. *Indonesian Interdisciplinary Journal of Sharia Economics (IJSE)*, 7(1), 442–461. <https://doi.org/10.31538/ijse.v7i1.4455>
- Izquierdo-Yusta, A., Martínez-Ruiz, M. P., & Pérez-Villarreal, H. H. (2022). Studying the impact of food values, subjective norm and brand love on behavioral loyalty. *Journal of Retailing and Consumer Services*, 65, 102885. <https://doi.org/10.1016/j.jretconser.2021.102885>

- Jackson, S. (2023, March 1). *Sustainability In Skincare: What Is It?* Comfort Zone International. <https://world.comfortzoneskin.com/blogs/blog/sustainability-in-skincare-what-is-it>
- Jager, J., Putnick, D. L., & Bornstein, M. H. (2017). More than Just convenient: the Scientific Merits of Homogeneous Convenience Samples. *Monographs of the Society for Research in Child Development*, 82(2), 13–30. <https://doi.org/10.1111/mono.12296>
- Jakubowska, D., Dąbrowska, A. Z., Pacholek, B., & Sady, S. (2024). Behavioral Intention to Purchase Sustainable Food: Generation Z's Perspective. *Sustainability*, 16(17), 7284–7284. <https://doi.org/10.3390/su16177284>
- Janse, R. J., Hoekstra, T., Jager, K. J., Zoccali, C., Tripepi, G., Dekker, F. W., & van Diepen, M. (2021). Conducting correlation analysis: Important limitations and pitfalls. *Clinical Kidney Journal*, 14(11), 2332–2337. <https://doi.org/10.1093/ckj/sfab085>
- Joshi, Y., & Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. *International Strategic Management Review*, 3(1-2), 128–143. <https://doi.org/10.1016/j.ism.2015.04.001>
- Juraimi, S. A., O'Brien, J., Hirsh, J., Tan, A., Teo, J., Khaiat, A., Yeo, K. L., & Smith, B. P. C. (2023). Consumer habits and practices for cosmetics and personal care products in Singapore: An online survey. *Food and Chemical Toxicology*, 174, 113659. <https://doi.org/10.1016/j.fct.2023.113659>
- Kabir, S. M. S. (2016). *Basic Guidelines for Research: An Introductory Approach for All Disciplines (Sample and Sampling Designs)* (1st ed., pp. 168–180). Book Zone Publication.
- Kahraman, A., & Kazançoğlu, İ. (2019). Understanding consumers' purchase intentions toward natural-claimed products: A qualitative research in personal care products. *Business Strategy and the Environment*, 28(6). <https://doi.org/10.1002/bse.2312>
- Kamwendo, A. R., & Maharaj, M. (2022). The preferences of consumers when selecting skin care products. *Journal of Contemporary Management*, 19(1), 82–106. <https://doi.org/10.35683/jcm20134.138>
- Kang, H. (2021). Sample size determination and power analysis using the G*power software. *Journal of Educational Evaluation for Health Professions*, 18(17), 17. <https://doi.org/10.3352/jeehp.2021.18.17>
- Kang, Y. W., Senathirajah, A. R. B. S., Haque, R., Lertatthakornkit, T., Krishnasamy, H. N., Wu, Y., & Isa, M. B. M. (2024). Factors Influencing Purchase Intention of Facial Skincare amongst Malaysian Consumers. *Transnational Marketing Journal*, 12(1), 106-117.

- Kara, A., Rojas-Méndez, J. I., Kucukemiroglu, O., & Harcar, T. (2009). Consumer preferences of store brands: Role of prior experiences and value consciousness. *Journal of Targeting, Measurement and Analysis for Marketing*, 17(2), 127–137. <https://doi.org/10.1057/jt.2009.6>
- Karatu, V. M. H., & Mat, N. K. N. (2015). The Mediating Effects of Green Trust and Perceived Behavioral Control on the Direct Determinants of Intention to Purchase Green Products in Nigeria. *Mediterranean Journal of Social Sciences*, 6(4). <https://doi.org/10.5901/mjss.2015.v6n4p256>
- Kaur, N., & Chandra, A. (2025, March 22). *The Impact of Influencer Marketing on Consumer Purchasing Decisions in The Cosmetic Industry*. ResearchGate. <https://doi.org/10.21203/rs.3.rs-6284614/v1>
- Khan, A., & Azam, M. K. (2016). Factors Influencing Halal Products Purchase Intention in India: Preliminary Investigation. *The IUP Journal of Marketing Management*, 15(1), 20–35.
- Khoiriah, R. I., & Imaningsih, E. S. (2025). Impact of Greenwashing, Subjective Norm, and Perceived Behavioral Control on Purchase Intention for Eco-Friendly Packaged Fast-Moving Consumer Goods: The Mediating Role of Green Trust. *International Journal of Social and Management Studies*, 6(3), 160–175. <https://doi.org/10.5555/ijosmas.v6i3.501>
- Khyzer, M., & Dost, B. (2013). *Conceptualizing Green Purchase Intention in Emerging Markets: An Empirical Analysis on Pakistan*. <https://www.westeastinstitute.com/wp-content/uploads/2013/07/Zia-ur-Rehman.pdf>
- Kianpour, K., Anvari, R., Jusoh, A., & Fauzi Othman, M. (2014). Important motivators for buying green products. *Intangible Capital*, 10(5). <https://doi.org/10.3926/ic.470>
- Kim, H. Y., & Chung, J. (2011). Consumer purchase intention for organic personal care products. *Journal of Consumer Marketing*, 28(1), 40–47. <https://doi.org/10.1108/07363761111101930>
- Kim, J. H. (2019). Multicollinearity and misleading statistical results. *Korean Journal of Anesthesiology*, 72(6), 558–569. <https://doi.org/10.4097/kja.19087>
- Kim, N., & Lee, K. (2023). Environmental consciousness, purchase intention, and actual purchase behavior of eco-friendly products: The moderating impact of situational context. *International Journal of Environmental Research and Public Health*, 20(7), 5312. <https://doi.org/10.3390/ijerph20075312>
- Koay, K. Y., & Ahmed, H. I. (2025). Understanding consumers' purchase intentions for green cosmetic products: an integrated perspective. *Social Responsibility Journal*, 21(9), 2098–2111. <https://doi.org/10.1108/srj-04-2025-0382>

- Koh, E. T., & Owen, W. L. (2000). Descriptive Research and Qualitative Research. *Introduction to Nutrition and Health Research*, 219–248. Springer. https://doi.org/10.1007/978-1-4615-1401-5_12
- Kolar, D. R., Haynos, A. F., Wang, S. B., Lask, T., Murray, S. B., Voderholzer, U., & Gorrell, S. (2024). Identification of Affective- and Social-Reinforcement Functions of Driven Exercise: Evidence From Three Samples. *Clinical Psychological Science*. <https://doi.org/10.1177/21677026241290455>
- Kong, W., Harun, A., Sulong, R. S., & Lily, J. (2014). The Influence of Consumers Perception of Green Products on Green Purchase Intention. *International Journal of Asian Social Science*, 4(8), 924–939. https://www.researchgate.net/publication/266739008_The_Influence_of_Consumers_Perception_of_Green_Products_on_Green_Purchase_Intention
- Koo, M., & Yang, S.-W. (2025). Questionnaire Use and Development in Health Research. *Encyclopedia*, 5(2), 65–65. <https://doi.org/10.3390/encyclopedia5020065>
- Kopplin, C. S., & Rösch, S. F. (2021). Equifinal causes of sustainable clothing purchase behavior: An fsQCA analysis among generation Y. *Journal of Retailing and Consumer Services*, 63, 102692. <https://doi.org/10.1016/j.jretconser.2021.102692>
- Kosnin, R., Hilmi, N. H., Norizan, N., Chandramoorthy, W., & Abidin, Z. S. Z. (2024). Consumers Purchase Intention Towards Organic Beauty Products Among Women in Malaysia. *Journal of Hospitality, Tourism and Wellness Studies (JHTW)*, 1(1), 31–42. <https://doi.org/10.70944/jhtw.v1i1.1436>
- Kufaine, N. (2024). Understanding Characteristics of Extended Theory of Planned Behaviour: Systematic Literature Review. *Open Journal of Philosophy*, 14(04), 848–858. <https://doi.org/10.4236/ojpp.2024.144057>
- Kumar, N., & Mohan, D. (2021). Sustainable apparel purchase intention: collectivist cultural orientation and price sensitivity in extended TPB model. *Journal of Revenue and Pricing Management*, 20(2), 149–161. <https://doi.org/10.1057/s41272-021-00297-z>
- Kusuma, P. N. P. D. K., & Handayani, S. R. B. (2018). The Effect of Environmental Knowledge, Green Advertising and Environmental Attitude toward Green Purchase Intention. *Russian Journal of Agricultural and Socio-Economic Sciences*, 78(6), 95–105. <https://doi.org/10.18551/rjoas.2018-06.10>
- Kwak, S. (2023). Are only p-Values less than 0.05 significant? A p-Value greater than 0.05 is also significant! *Journal of Lipid and Atherosclerosis*, 12(2), 89–89. <https://doi.org/10.12997/jla.2023.12.2.89>

- Kyriazos, T., & Poga, M. (2023). Dealing with multicollinearity in factor analysis: The problem, detections, and solutions. *Open Journal of Statistics, 13*(3), 404–424. <https://doi.org/10.4236/ojs.2023.133020>
- Lavuri, R. (2022). Organic green purchasing: Moderation of environmental protection emotion and price sensitivity. *Journal of Cleaner Production, 368*, 133113. <https://doi.org/10.1016/j.jclepro.2022.133113>
- Leila, G., Atefeh, M., Masoud, K., & Yousef, A. K. (2024). Exploring the Correlation between Different Types of Subjective Norms and High-Risk Behaviors: A Cross-Sectional Study on College Students in Shiraz, Iran (2021). *Journal of Health Sciences and Surveillance System, 12*(3), 336–343. <https://sid.ir/paper/1363078/en>
- Levrini, G. R. D., & Santos, M. J. dos . (2021). The Influence of Price on Purchase Intentions: Comparative Study between Cognitive, Sensory, and Neurophysiological Experiments. *Behavioral Sciences, 11*(2), 16. <https://doi.org/10.3390/bs11020016>
- Li, D. (2025). Impact of green advertisement and environmental knowledge on intention of consumers to buy green products. *BMC Psychology, 13*(1). <https://doi.org/10.1186/s40359-025-02538-x>
- Li, X., Dai, J., Zhu, X., Li, J., He, J., Huang, Y., Liu, X., & Shen, Q. (2023). Mechanism of attitude, subjective norms, and perceived behavioral control influence the green development behavior of construction enterprises. *Humanities and Social Sciences Communications, 10*(1), 1–13. <https://www.nature.com/articles/s41599-023-01724-9>
- Li, Y., & Shan, B. (2025). Exploring the role of health consciousness and environmental awareness in purchase intentions for green-packaged organic foods: an extended TPB model. *Frontiers in Nutrition, 12*. <https://doi.org/10.3389/fnut.2025.1528016>
- Lim, C. (2023, August 24). *Organic Skincare Is In And Here Are Local Brands You Should Know*. Beauty Insider. <https://beautyinsider.my/organic-skincare-brands-malaysia/>
- Lim, K. B., Yeo, S. F., & Lee, H. C. (2020). Generation Y's Purchase Intention towards Natural Skincare Products: A PLS-SEM Analysis. *Global Business and Management Research: An International Journal, 12*(1), 61–77. https://www.researchgate.net/publication/343961345_Generation_Y
- Limbu, Y. B., Pham, L., & Nguyen, T. T. T. (2022). Predictors of Green Cosmetics Purchase Intentions among Young Female Consumers in Vietnam. *Sustainability, 14*(19), 12599. <https://doi.org/10.3390/su141912599>

- Lin, B., & Yang, M. (2022). Does Knowledge Really Help? *Journal of Global Information Management*, 30(1), 1–22.
<https://doi.org/10.4018/jgim.308807>
- Ling, L. A., Phang, C., & Salleh, N. I. (2024). Influence of Subjective Norms on Shaping Consumer Purchase Intention: A Structured Review. *Malaysian Journal of Business and Economics (MJBE)*, 11(2), 35–52.
<https://doi.org/10.51200/mjbe.v11i2.5782>
- Liu, H., Chen, C., Li, Y., Duan, Z., & Li, Y. (2022). Characteristic and correlation analysis of metro loads. In *Smart Metro Station Systems* (pp. 237–267). Elsevier eBooks. <https://doi.org/10.1016/b978-0-323-90588-6.00009-3>
- Liu, M. T., Liu, Y., & Mo, Z. (2020). Moral norm is the key: An extension of the theory of planned behaviour (TPB) on Chinese consumers' green purchase intention. *Asia Pacific Journal of Marketing and Logistics, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/apjml-05-2019-0285>
- Lius, S., & Salim, L. (2024). Do Female Generation Z Have Purchase Intention on Green Cosmetic Based on Their Environmental Knowledge, Environmental Concern, Health Consciousness, Attitude and Subjective Norms? *Fokus Ekonomi/Fokus Ekonomi*, 19(1), 95–110.
<https://doi.org/10.34152/fe.19.1.95-110>
- Liyanage, A. (2022). Determinants of Purchase Intention for Fashion Apparel; Insight From Millennials in UVA Province. *SSRN Electronic Journal*.
<https://doi.org/10.2139/ssrn.4993451>
- Lobiondo-Wood, G., & Haber, J. (2018). *Nursing research: Methods and critical appraisal for evidence-based practice* (9th ed.). Elsevier.
- Lu, M. H., Sha'ari, M. A. A. H., Annamalai, D., Norazmi, M. S. A. B., Hizani, N. A. B., & Tan, K. K. (2021). Factors Influence Customers Purchase Intention towards Hypermarkets at Kota Bharu, Kelantan. *Jurnal Manajemen Dan Kewirausahaan*, 23(2), 159–166.
<https://doi.org/10.9744/jmk.23.2.159-166>
- Maduwinarti, A., Maruta, A., & Mahendra, A. (2025). The intersection of green marketing and social media in Southeast Asia: a bibliometric analysis and research agenda. *Cogent Business & Management*, 12(1).
<https://doi.org/10.1080/23311975.2025.2525499>
- Mahapatra, G. P., Bhullar, N., & Gupta, P. (2022). Gen Z: An Emerging Phenomenon. *NHRD Network Journal*, 15(2), 246–256.
<https://doi.org/10.1177/26314541221077137>
- Maharani, B. A., & Ekasari, A. (2022). Antecedents and Consequence of Green Knowledge: A Study of Green Cosmetics. *Advances in Business Research International Journal*, 8(2), 63–74.
<https://doi.org/10.24191/abrij.v8i2.4300>

- Maichum, K., Parichatnon, S., & Peng, K.-C. (2016). Application of the Extended Theory of Planned Behavior Model to Investigate Purchase Intention of Green Products among Thai Consumers. *Sustainability*, 8(10), 1077. <https://doi.org/10.3390/su8101077>
- Manikandan, S. (2011). Frequency distribution. *Journal of Pharmacology and Pharmacotherapeutics*, 2(1), 54. NCBI. <https://doi.org/10.4103/0976-500x.77120>
- Marcoulides, K. M., & Raykov, T. (2019). Evaluation of Variance Inflation Factors in Regression Models Using Latent Variable Modeling Methods. *Educational and Psychological Measurement*, 79(5), 874–882. <https://doi.org/10.1177/0013164418817803>
- Maydeu-Olivares, A., Shi, D., & Rosseel, Y. (2017). Assessing Fit in Structural Equation Models: A Monte-Carlo Evaluation of RMSEA Versus SRMR Confidence Intervals and Tests of Close Fit. *Structural Equation Modeling: A Multidisciplinary Journal*, 25(3), 389–402. <https://doi.org/10.1080/10705511.2017.1389611>
- Mazhar, S. A., Anjum, R., Anwar, A. I., & Khan, A. A. (2021). Methods of Data Collection: a Fundamental Tool of Research. *Journal of Integrated Community Health*, 10(1), 6–10. researchgate. <https://doi.org/10.24321/2319.9113.202101>
- Mbokane, L., & Modley, L.-A. (2024). Green Consumerism in Young Adults: Attitudes and Awareness in University Students in Johannesburg, South Africa. *Sustainability*, 16(5), 1898–1898. <https://doi.org/10.3390/su16051898>
- Meliniasari, A. R., & Mas'od, A. (2024). Understanding Factors Shaping Green Cosmetic Purchase Intentions: Insights from Attitudes, Norms, and Perceived Behavioral Control. *International Journal of Academic Research in Business and Social Sciences*, 14(1), 1487–1496. <http://dx.doi.org/10.6007/ijarbss/v14-i1/20573>
- Minbale, E., Bizuneh, B., Seife, W., Mekonnen, S., Asfaw, T., Sharew, S., & Getachew, L. (2024). Environmentally-Sustainable Apparel Purchasing Behavior of Ethiopian Consumers: An Extended Model of Theory of Planned Behavior. *Preprints*. <https://doi.org/10.20944/preprints202408.2066.v1>
- Minocha, S., & Singh, A. (2024). From attitude to action: Exploring the pathway to purchase organic skincare products. *Multidisciplinary Reviews*, 7(9), 2024211–2024211. <https://doi.org/10.31893/multirev.2024211>
- Mishra, P., Pandey, C., Singh, U., & Gupta, A. (2018). Scales of measurement and presentation of statistical data. *Annals of Cardiac Anaesthesia*, 21(4), 419–422. https://doi.org/10.4103/aca.aca_131_18

- Mitchell, E. (2023, September 18). *Changing the Beauty Industry: Gen-Z Consumer Behaviour* | ILG. Ilg. <https://www.international-logistics-group.com/uk-en/insights/how-is-gen-z-transforming-the-beauty-market-28465/>
- Moberly, A., Rapadas, E., Nordquist, P., Swaans, S., & Paustian, S. (2024, September 7). *2024 Beauty Industry Trends: Gen Z, Skincare, & More*. Numerator. <https://www.numerator.com/resources/blog/beauty-trends/>
- Morgan, D. L. (2008). Sampling Frame. *The SAGE Encyclopedia of Qualitative Research Methods*. <https://doi.org/10.4135/9781412963909.n414>
- Morwitz, V. (2014). Consumers' Purchase Intentions and their Behavior. *Foundations and Trends in Marketing*, 7(3), 181–230. <https://doi.org/10.1561/17000000036>
- Mustafa, F. A., Arif, A. M. M., & Bakar, E. A. (2023). The influence of attitude, perceived behaviour control, subjective norms and self-identity towards zero waste behaviour of consumers in the Klang Valley. *Malaysian Journal of Society and Space*, 19(1). <https://doi.org/10.17576/geo-2023-1901-11>
- Nakarmi, S. S. (2024). Multi-collinearity in Research and Wayforward. *Kaladarpan कलादर्पण*, 4(1), 85–91. <https://doi.org/10.3126/kaladarpan.v4i1.62837>
- Naser, M. (2024, October 18). Response Bias In Surveys Turn Survey Data into Actionable Insights with Dashboards and Sentiment Analysis. SmartSurvey. <https://www.smartsurvey.co.uk/blog/response-bias-in-surveys>
- Nazibudin, N. A., Sabri, S. A. M., & Manaf, L. A. (2025). Aligning with sustainable development goals (SDG) 12: A Systematic Review of Food Waste Generation in Malaysia. *Cleaner Waste Systems*, 10, 100205. <https://doi.org/10.1016/j.clwas.2025.100205>
- Nazri, S. A. A. M., & Othman, A. K. (2023). Factors Influencing Online Buying Intention among Royal Malaysian Police (RMP) Officers. *Information Management and Business Review*, 15(3(SI)), 376–386. [https://doi.org/10.22610/imbr.v15i3\(SI\).3494](https://doi.org/10.22610/imbr.v15i3(SI).3494)
- Nejadrezaei, N., Henschion, M., & O'Neill, E. (2024). Consumers perspectives on biobased products: A scoping review. *Cleaner Production Letters*, 7, 100073. <https://doi.org/10.1016/j.clpl.2024.100073>
- Neves, C., Oliveira, T., & Santini, F. (2025). Understanding the determinants of sustainable consumption behavior: Insights from a meta and weight analysis. *Journal of Environmental Management*, 393, 126932. <https://doi.org/10.1016/j.jenvman.2025.126932>

- Nickolas, S. (2024, December 26). *What does it mean if the correlation coefficient is positive, negative, or zero?* Investopedia. <https://www.investopedia.com/ask/answers/032515/what-does-it-mean-if-correlation-coefficient-positive-negative-or-zero.asp>
- Nik Mud, N. N., Hairani, N., Zakaria, A. N. I., Kamaruddin, M., & Hasan, H. (2020). Factors Influencing Young Female Purchase Intention towards Local Cosmetics Product in Malaysia. *International Journal of Modern Trends in Social Sciences*, 3(11), 01-12. <https://doi.org/10.35631/ijmtss.311001>
- Nikolopoulou, K. (2022). *What is non-probability sampling? | types & examples.* Scribbr. <https://www.scribbr.com/methodology/non-probability-sampling/>
- Nizam, N. Z., Mansor, N., & Supaat, S. H. (2019). Analyzing Customer Satisfaction: Consumer Behavior towards the Selection of Beauty Products in Klang Valley. *International Journal of Human and Technology Interaction (IJHaTI)*, 3(2), 55–60. <https://ijhati.utem.edu.my/ijhati/article/view/5493>
- Noor, N. M., Noranee, S., Zakaria, M. F., Unin, N., & Suaee, M. A. H. M. (2020). Online Shopping: The Influence of Attitude, Subjective Norm and Perceived Behavioral Control on Purchase Intention. *Proceedings of the 2020 the 6th International Conference on E-Business and Applications*. <https://doi.org/10.1145/3387263.3387266>
- Nordin, N., & Noriman, N. A. (2021). Purchase Intention Model of Malaysian Home-Grown Beauty Product. *International Journal of Academic Research in Business and Social Sciences*, 11(11). <https://doi.org/10.6007/ijarbss/v11-i11/11631>
- Nwabuko, O., Iwu, L. O., Njoku, P. U., & Nwamoh, U. N. (2024). An Overview of Research Study Designs in Quantitative Research Methodology: Research Article. *American Journal of Medical and Clinical Research & Reviews*, 3(5), 1–6. <https://doi.org/10.58372/2835-6276.1169>
- Ogiemwonyi, O. (2024). Determinants of green behavior (Revisited): A comparative study. *Resources, Conservation & Recycling Advances*, 22, 200214–200214. <https://doi.org/10.1016/j.rcradv.2024.200214>
- Olaniyi, A. A. (2019). Type and Cronbach's Alpha Analysis in an Airport Perception Study. *Scholar Journal of Applied Sciences and Research*, 2(4). <https://innovationinfo.org/articles/SJASR/SJASR-4-223.pdf>
- Onel, N. (2016). Pro-environmental Purchasing Behavior of Consumers. *Social Marketing Quarterly*, 23(2), 103–121. <https://doi.org/10.1177/1524500416672440>

- Othman, N. H., & Sudarmin, S. F. (2022). Measuring Subjective Norms of Online Shopping Behavior: Evidence from Developing Country. *International Journal of Academic Research in Business and Social Sciences*, 12(12). <https://doi.org/10.6007/ijarbss/v12-i12/15946>
- Pamidimukkala, A., Kermanshachi, S., Rosenberger, J. M., & Hladik, G. (2025). Utilizing Extended Theory of Planned Behavior to Evaluate Consumers' Adoption Intention of Electric Vehicles. *Green Energy and Intelligent Transportation*, 4(5), 100258. <https://doi.org/10.1016/j.geits.2025.100258>
- Pardana, D., Abdullah, R., Mahmuda, D., Malik, E., Pratiwi, E. T., Dja'wa, A., Abdullah, L. O. D., Hardin, & Hamid, R. S. (2019). Attitude analysis in the theory of planned behavior: green marketing against the intention to buy environmentally friendly products. *IOP Conference Series: Earth and Environmental Science*, 343, 012128. <https://doi.org/10.1088/1755-1315/343/1/012128>
- Pardeshi, V., Pardeshi, H., & Khanna, V. T. (2024). Impact of Environmental Knowledge, Past Sustainable Behavior and Social Influence on Sustainable Apparel Purchase Intention with Price Consciousness as Moderating Variable. *NMIMS Management Review*, 32(3). <https://doi.org/10.1177/09711023241292475>
- Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, 29(29), 123–134. <https://doi.org/10.1016/j.jretconser.2015.11.006>
- Pauwels, K., Srinivasan, S., & Franses, P. H. (2007). When Do Price Thresholds Matter in Retail Categories? *Marketing Science*, 26(1), 83–100. <https://doi.org/10.1287/mksc.1060.0207>
- Phung, A. (2025, September 18). *91% of Malaysians Open To Sustainable Products, But Price Remains Key Barrier*. BusinessToday. <https://www.businesstoday.com.my/2025/09/18/91-of-malaysians-open-to-sustainable-products-but-price-remains-key-barrier/>
- Praharjo, A., & Wijaya, R. (2023). Consumer's behavior intention in using green skincare products. In *Routledge eBooks* (pp. 176–183). Informa. <https://doi.org/10.1201/9781003360483-20>
- Prakash, G. (2025). Publication trends and green cosmetics buying behaviour: A comprehensive bibliometric analysis. *Heliyon*, 11(2), e41513–e41513. <https://doi.org/10.1016/j.heliyon.2024.e41513>
- Prasanna, M., & Priyanka, A. L. (2024). Marketing to Gen Z: Understanding the preferences and behaviors of next generation. *International Journal for Multidisciplinary Research*, 6(4), 1–8. <https://doi.org/10.36948/ijfmr.2024.v06i04.26612>

- Pratama, H., & Suprpto, B. (2017). The Effect of Brand Image, Price, and Brand Awareness on Brand Loyalty: The Rule of Customer Satisfaction as a Mediating Variable. *GATR Global Journal of Business Social Sciences Review*, 5(2), 52–57. [https://doi.org/10.35609/gjbsr.2017.5.2\(9\)](https://doi.org/10.35609/gjbsr.2017.5.2(9))
- Priporas, C.-V., Stylos, N., & Fotiadis, A. K. (2017). Generation Z Consumers' Expectations of Interactions in Smart Retailing: a Future Agenda. *Computers in Human Behavior*, 77(1), 374–381. <https://doi.org/10.1016/j.chb.2017.01.058>
- Putera, M. B. Y., & Famiola, M. (2024). Attitudinal Loyalty Manifestation in Banking CSR: Cross-Buying Behavior and Customer Advocacy. *ArXiv (Cornell University)*, 3(3). <https://doi.org/10.56472/25835238/irjems-v3i3p131>
- Qi, X., & Ploeger, A. (2019). Explaining consumers' intentions towards purchasing green food in Qingdao, China: The amendment and extension of the theory of planned behavior. *Appetite*, 133, 414–422. <https://doi.org/10.1016/j.appet.2018.12.004>
- Qomariah, A., & Prabawani, B. (2020). The Effects of Environmental Knowledge, Environmental Concern, and Green Brand Image on Green Purchase Intention with Perceived Product Price and Quality as the Moderating Variable. *IOP Conference Series: Earth and Environmental Science*, 448, 012115. <https://doi.org/10.1088/1755-1315/448/1/012115>
- Raharjanti, N. W., Wiguna, T., Purwadianto, A., Soemantri, D., Indriatmi, W., Poerwandari, E. K., Mahajudin, M. S., Nugrahadi, N. R., Roekman, A. E., Saroso, O. J. D. A., Ramadianto, A. S., & Levania, M. K. (2022). Translation, validity and reliability of decision style scale in forensic psychiatric setting in Indonesia. *Heliyon*, 8(7). <https://doi.org/10.1016/j.heliyon.2022.e09810>
- Rajeh, M. T. (2022). Modeling the theory of planned behavior to predict adults' intentions to improve oral health behaviors. *BMC Public Health*, 22(1). <https://doi.org/10.1186/s12889-022-13796-4>
- Rakhmawati, T., Damayanti, S., Jati, R. K., & Astrini, N. J. (2023). An extended TPB model of waste-sorting intention: a case study of Indonesia. *Management of Environmental Quality: An International Journal*, 34(5), 1248–1268. <https://doi.org/10.1108/meq-11-2022-0309>
- Ranganathan, P., & Aggarwal, R. (2018). Study designs: Part 1 - an Overview and Classification. *Perspectives in Clinical Research*, 9(4), 184–186. https://doi.org/10.4103%2Fpicr.PICR_124_18
- Rani, N. S. A., & Krishnan, K. S. D. (2018). Factors that influence Malay students in purchasing skincare products in Malaysia. *Journal of Business and Retail Management Research*, Volume 13(Issue 01). <https://jbrmr.com/details&cid=405>

- Ranjbarian, B., Rehman, M., & Lari, A. (2014). Attitude toward sms advertising and derived behavioral intention, an empirical study using TPB (SEM method). *Social Economic Debates*, 3(1), 42–59.
- Riaz, H. (2025, March 17). *Challenges of Going Green in the Beauty Industry: What's Holding Us Back? - ensogo*. Ensogo. <https://ensogo.io/challenges-of-going-green-in-the-beauty-industry-whats-holding-us-back/>
- Roopa, S., & Rani, M. (2012). Questionnaire Designing for a Survey. *The Journal of Indian Orthodontic Society*, 46(4), 273–277. <https://doi.org/10.5005/jp-journals-10021-1104>
- Rossati, A. (2016). Global Warming and Its Health Impact. *The International Journal of Occupational and Environmental Medicine*, 8(1), 7–20. <https://doi.org/10.15171/ijoem.2017.963>
- Ruel, E. E., Wagner, W. E., & Gillespie, B. J. (2015). *The Practice of Survey Research : Theory and Applications*. Sage Publications, Inc.
- Sagar, A., Jyothi, A., & Ranjith, P. V. (2025). GenZ prefers cosmetic brands that are focused on sustainability and environmental issues. *BIO Web of Conferences*, 151, 04007–04007. <https://doi.org/10.1051/bioconf/202515104007>
- Saifudin, S., Hartiningsih, S., Lukman, N., & Hamdan, H. (2026). Factors influencing green product purchase intention among Gen-Z Muslims. *Asian Journal of Islamic Management (AJIM)*, 7(2), 276–292. <https://doi.org/10.20885/ajim.vol7.iss2.art6>
- Salazar, H. A., Oerlemans, L., & van Stroe-Biezen, S. (2012). Social influence on sustainable consumption: evidence from a behavioural experiment. *International Journal of Consumer Studies*, 37(2), 172–180. <https://doi.org/10.1111/j.1470-6431.2012.01110.x>
- Salehaldin, S. (2020, May 19). *6 Sustainable Malaysian Beauty Brands To Support*. Tatler. <https://www.tatlerasia.com/style/beauty/local-sustainable-beauty-brands-to-start-buying>
- Salim, M., Aprianto, R., Anwar Abu Bakar, S., & Rusdi, M. (2022). Muslim Clothing Online Purchases in Indonesia during COVID-19 Crisis. *Economies*, 10(1), 19. <https://doi.org/10.3390/economies10010019>
- Salmerón-Gómez, R., García-García, C. B., & García-Pérez, J. (2024). A Redefined Variance Inflation Factor: Overcoming the Limitations of the Variance Inflation Factor. *Computational Economics*, 65(1). <https://doi.org/10.1007/s10614-024-10575-8>

- Sentosa, I., & Mat, N. K. N. (2012). Examining a Theory of Planned Behavior (Tpb) and Technology Acceptance Model (Tam) in Internet purchasing Using Structural Equation Modeling. *Researchers World*, 3(2).
[https://www.semanticscholar.org/paper/Examining-a-Theory-of-Planned-Behavior-\(Tpb\)-and-in-Sentosa-Mat/3179dda1b4cb66d059437bf3c6c8a72ade043db9](https://www.semanticscholar.org/paper/Examining-a-Theory-of-Planned-Behavior-(Tpb)-and-in-Sentosa-Mat/3179dda1b4cb66d059437bf3c6c8a72ade043db9)
- Şenyapar, H. N. D. (2024). Unveiling Greenwashing Strategies: A Comprehensive Analysis of Impacts on Consumer Trust and Environmental Sustainability. *Journal of Energy Systems*, 8(3), 164–181.
<https://doi.org/10.30521/jes.1436875>
- Sertori, B. R. P., Bagatini, F. Z., & Perin, M. G. (2023). Generation Z and Sustainable Consumption: Motivators to Purchase Beauty and Personal Care Products. *Revista Gestão E Desenvolvimento*, 20(1), 3–27.
<https://doi.org/10.25112/rgd.v20i1.3147>
- Sevam, V. a/l, Tan, A. M., & Mangkau, I. D. A. (2025). The Factors Influencing Working Gen Z Intentions to Purchase Green Cosmetics Products in Malaysia. *International Journal of Research and Innovation in Social Science*, 9(28), 180–194. <https://doi.org/10.47772/ijriss.2025.92800018>
- Shanbhag, P. R., Pai, Y. P., Kidiyoor, G., & Prabhu, N. (2023). Development and initial validation of a theory of planned behavior questionnaire: Assessment of purchase intentions towards products associated with CRM campaigns. *Cogent Business & Management*, 10(2).
<https://doi.org/10.1080/23311975.2023.2229528>
- Shimul, A. S., Cheah, I., & Khan, B. B. (2021). Investigating Female Shoppers' Attitude and Purchase Intention toward Green Cosmetics in South Africa. *Journal of Global Marketing*, 35(1), 1–20.
<https://doi.org/10.1080/08911762.2021.1934770>
- Shrestha, N. (2020). Detecting Multicollinearity in Regression Analysis. *American Journal of Applied Mathematics and Statistics*, 8(2), 39–42.
<https://doi.org/10.12691/ajams-8-2-1>
- Shukla, D. (2023). A narrative review on types of data and scales of measurement: An initial step in the statistical analysis of medical data. *Cancer Research, Statistics, and Treatment*, 6(2), 279–283.
https://doi.org/10.4103/crst.crst_1_23
- Siedlecki, S. L. (2020). Understanding descriptive research designs and methods. *Clinical Nurse Specialist*, 34(1), 8–12. ResearchGate.
<https://doi.org/10.1097/NUR.0000000000000493>

- Simanjuntak, M., Nafila, N. L., Yuliati, L. N., Johan, I. R., Najib, M., & Sabri, M. F. (2023). Environmental Care Attitudes and Intention to Purchase Green Products: Impact of Environmental Knowledge, Word of Mouth, and Green Marketing. *Sustainability*, *15*(6), 5445. <https://doi.org/10.3390/su15065445>
- Singh, S. (2023, November 24). *What is Descriptive Research? Definition, Methods, Types and Examples* | *Researcher.Life*. Researcher.Life. <https://researcher.life/blog/article/what-is-descriptive-research-definition-methods-types-and-examples/>
- Singh, S., & Singhal, D. (2022, June 10). *Green Cosmetic Industry and Young Consumers: Antecedents of Green Brand Preference and Loyalty*. Social Science Research Network. <https://doi.org/10.2139/ssrn.4532924>
- Sinha, R., & Subrahmanyam Annamdevula. (2023). Is scepticism a barrier to green purchase behaviour? Testing a comprehensive model in the Indian context. *Society and Business Review*, *18*(4), 668–690. <https://doi.org/10.1108/sbr-09-2022-0251>
- Sirisilla, S. (2023, February 20). *Descriptive Research | Definition, Types, and Flaws to Avoid*. Enago Academy. <https://www.enago.com/academy/descriptive-research-design/>
- Slater, P., & Hasson, F. (2024). Quantitative Research Designs, Hierarchy of Evidence and Validity. *Journal of Psychiatric and Mental Health Nursing*, *32*(3), 656–660. <https://doi.org/10.1111/jpm.13135>
- Sreen, N., Purbey, S., & Sadarangani, P. (2018). Impact of culture, behavior and gender on green purchase intention. *Journal of Retailing and Consumer Services*, *41*, 177–189. <https://doi.org/10.1016/j.jretconser.2017.12.002>
- Statista. (2025). *Natural Cosmetics - Malaysia | Statista Market Forecast*. Statista. https://www.statista.com/outlook/cmo/beauty-personal-care/cosmetics/natural-cosmetics/malaysia?srsId=AfmBOop5Y-Wa0_r6BIC5Bb2QSNLYkMTwLcSB-bNGQT0X4Gbl-IQYP6U-
- Stevens, S. S. (1946). On the Theory of Scales of Measurement. *Science*, *103*(2684), 677–680. <https://www.jstor.org/stable/1671815>
- Stone, N. (2023, January 26). *Advantages of Questionnaires in Online Research*. SmartSurvey. <https://www.smartsurvey.co.uk/blog/advantages-of-questionnaires-in-online-research>
- Suh, J.-C., & Yi, Y. (2006). When Brand Attitudes Affect the Customer Satisfaction-Loyalty Relation: The Moderating Role of Product Involvement. *Journal of Consumer Psychology*, *16*(2), 145–155. https://doi.org/10.1207/s15327663jcp1602_5

- Sujood, G. F., Siddiqui, S., Bano, N., & Hamid, S. (2022). Travelling to Tourism Destinations through the lens of Sustainability: An extended TPB Model to predict behavioural intention of Gen Z Consumers. *Journal of Tourism, Sustainability and Well-Being*, 10(3), 172–188. <https://doi.org/10.34623/1vyp-qy32>
- Sun, Y., & Wang, S. (2020). Understanding consumers' intentions to purchase green products in the social media marketing context. *Asia Pacific Journal of Marketing and Logistics*, 32(4), 860–878. <https://doi.org/10.1108/apjml-03-2019-0178>
- Sun, Y., & Xing, J. (2022). The Impact of Social Media Information Sharing on the Green Purchase Intention among Generation Z. *Sustainability*, 14(11), 6879. <https://doi.org/10.3390/su14116879>
- Suphasomboon, T., & Vassanadumrongdee, S. (2022). Toward sustainable consumption of green cosmetics and personal care products: The role of perceived value and ethical concern. *Sustainable Production and Consumption*, 33(2352-5509), 230–243. <https://doi.org/10.1016/j.spc.2022.07.004>
- Suphasomboon, T., & Vassanadumrongdee, S. (2025). Perceived greenwashing and its impact on consumer behavior in the cosmetic industry. *Cleaner and Responsible Consumption*, 100377. <https://doi.org/10.1016/j.clrc.2025.100377>
- Susanti. (2022). *The Effect of Competitive Prices and Service Quality on Impulse Buying at Pontianak Idol Minimarket*. <https://feb.untan.ac.id/wp-content/uploads/2023/02/37-1.pdf>
- Swidi, A., Cheng, W., Hassan, M. G., Al-Hosam, A., & Mohd Kassim, A. W. (2010). *The mainstream cosmetics industry in Malaysia and the emergence, growth, and prospects of halal cosmetics* (pp. 1-20). College of Law, Government and International Studies, Universiti Utara Malaysia.
- Szaban, M., Szymkowiak, A., & Chwialkowska, A. (2025). Breaking barriers: Navigating the stages of the green consumer journey. *Environment Development and Sustainability*. <https://doi.org/10.1007/s10668-025-06795-z>
- Taherdoost, H. (2017). *Determining Sample Size; How to Calculate Survey Sample Size*. International Journal of Economics and Management Systems. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3224205
- Taib, N. M., Nordin, N. M., Yazid, Z. A., Daud, S., & Hisham, R. S. B. (2022). The Factors Influencing Green Purchase Intention on Green Product among Malaysian Consumers. *International Journal of Academic Research in Business and Social Sciences*, 12(6). <https://doi.org/10.6007/ijarbss/v12-i6/13987>

- Tavakol, M., & Dennick, R. (2011). Making Sense of Cronbach's Alpha. *International Journal of Medical Education*, 2(2), 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- Tavitiyaman, P., Zhang, X. Y., & Chan, H. M. (2024). Impact of environmental awareness and knowledge on purchase intention of an eco-friendly hotel: mediating role of habits and attitudes. *Journal of Hospitality and Tourism Insights*, 7(5). <https://doi.org/10.1108/jhti-08-2023-0580>
- Teh, D., Simsekoglu, Ö., & Kummeneje, A.-M. (2025). Environmental knowledge, attitudes, weather, and motivation as determinants of usage intention for shared micro-mobility services (SMSs): A Norwegian perspective. *Transportation Research Part F Traffic Psychology and Behaviour*, 115, 103342–103342. <https://doi.org/10.1016/j.trf.2025.103342>
- Teixeira, S., Oliveira, Z., Teixeira, S., & Teixeira, S. (2023). Understanding the Impact of Online Communication Strategies on Consumer Purchase Intention for Green Cosmetics. *Sustainability*, 15(20), 14784–14784. <https://doi.org/10.3390/su152014784>
- Testa, F., Iraldo, F., Vaccari, A., & Ferrari, E. (2015). Why Eco-labels can be Effective Marketing Tools: Evidence from a Study on Italian Consumers. *Business Strategy and the Environment*, 24(4), 252–265. <https://doi.org/10.1002/bse.1821>
- Testa, R., Vella, F., Rizzo, G., Schifani, G., & Migliore, G. (2024). What drives and obstacles the intention to purchase green skincare products? A study of the Italian market of green skincare products. *Journal of Cleaner Production*, 484, 144358. <https://doi.org/10.1016/j.jclepro.2024.144358>
- Topolovec-Vranic, J., & Natarajan, K. (2016). The Use of Social Media in Recruitment for Medical Research Studies: a Scoping Review. *Journal of Medical Internet Research*, 18(11), e286. <https://www.jmir.org/2016/11/e286/>
- Trading Economics. (2025). *Malaysia Imports of Essential oils, perfumes, cosmetics, toileteries - 2025 Data 2026 Forecast 1989-2024 Historical*. Tradingeconomics.com. <https://tradingeconomics.com/malaysia/imports/essential-oils-perfumes-cosmetics-toileteries>
- Tran, T. T., Le, T. B. D., Lam, Q. T., & Do, T. T. (2025). Factors Affecting the Purchase Intention of Generation Z for Sustainable Fashion Products in Vietnam. *International Journal of Economics & Management*, 19(2), 213–230.
- Tsaabitah, N. A. (2022). Understanding Generation Z's Purchase Intention Towards Green Skincare Products in Kingston Upon Hull, United Kingdom. *Asian Journal of Entrepreneurship*, 3(3). <https://doi.org/10.55057/aje.2022.3.3.9>

- Turner, A. G. (2003). Sampling frames and master samples. *United Nations Secretariat Statistics Division*.
https://unstats.un.org/unsd/demographic/meetings/egm/sampling_1203/doc%20s/no_3.pdf
- Tuten, T. L. (2010). Conducting online surveys. In *Advanced methods for conducting online behavioral research*. (pp. 179–192). American Psychological Association. <https://doi.org/10.1037/12076-012>
- Tyler, J., Boldi, M.-O., & Cherubini, M. (2022). Contemporary self-reflective practices: a large-scale Survey. *Acta Psychologica*, 230(1), 103768. <https://doi.org/10.1016/j.actpsy.2022.103768>
- Upadhyaya, A. S., & Sijoria, C. (2024). Customers' Purchase Intention of Green Cosmetics in India : Empirical Validations Using an Extended Theory of Planned Behavior (TPB). *Indian Journal of Marketing*, 54(8), 60. <https://doi.org/10.17010/ijom/2024/v54/i8/174187>
- Utama, A., Hariningsih, E., Mustikasari, A., Wardana, W., & Wibowo, A. (2025). Shopping under the influence: how price discounts and hedonic motivation drive impulse buying among young consumers in Indonesia. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2539456>
- Uyanik, G. K., & Güler, N. (2013). A Study on Multiple Linear Regression Analysis. *Procedia - Social and Behavioral Sciences*, 106(1), 234–240. <https://doi.org/10.1016/j.sbspro.2013.12.027>
- Varah, F., Mahongnao, M., Pani, B., & Khamrang, S. (2020). Exploring Young Consumers' Intention toward Green Products: Applying an Extended Theory of Planned Behavior. *Environment, Development and Sustainability*, 23, 9181–9195. <https://doi.org/10.1007/s10668-020-01018-z>
- Veronica, & Lady, L. (2023). Green Purchase Intention Analysis With Online Review As Intervening. *Management Studies and Entrepreneurship Journal (MSEJ)*, 4(2). <http://journal.yrpiipku.com/index.php/msej>
- Vieira, J., Frade, R., Ascenso, R., Prates, I., & Martinho, F. (2020). Generation Z and Key-Factors on E-Commerce: A Study on the Portuguese Tourism Sector. *Administrative Sciences*, 10(4), 103. <https://doi.org/10.3390/admsci10040103>
- Vironika, P., & Maulida, M. (2025). Green Purchase Behavior in Indonesia: Examining the Role of Knowledge, Trust and Marketing. *Challenges*, 16(3), 41. <https://doi.org/10.3390/challe16030041>

- Wajdi, M., Susanto, B., Sumartana, I. M., Sutiarmo, M. A., & Hadi, W. (2024). Profile of generation Z characteristics: Implications for contemporary educational approaches. *Kajian Pendidikan Seni Budaya Sosial Dan Lingkungan*, 1(1), 33–44. <https://doi.org/10.58881/kpsbsl.v1i1.8>
- Wang, C., Liu, T., Zhu, Y., Wang, H., Wang, X., & Zhao, S. (2023). The Influence of Consumer Perception on Purchase intention: Evidence from cross-border E-commerce Platforms. *Heliyon*, 9(11), e21617. <https://doi.org/10.1016/j.heliyon.2023.e21617>
- Wang, H., Ma, B., & Bai, R. (2019). How Does Green Product Knowledge Effectively Promote Green Purchase Intention? *Sustainability*, 11(4), 1193. <https://doi.org/10.3390/su11041193>
- Warner, L. A., Cantrell, M., & Diaz, J. M. (2022). Social Norms for Behavior Change: A Synopsis. *EDIS*, 2022(1). <https://doi.org/10.32473/edis-wc406-2022>
- Warni, Z. S., Sari, A., & Ambarwati, D. A. S. (2025). Influence of Product Price and Shopping Convenience on Consumer Satisfaction. *Journal of Business Management and Economic Development*, 3(02), 633–643. <https://doi.org/10.59653/jbmed.v3i02.1597>
- Wasti, S. P., Simkhada, P., Teijlingen, E. van, Sathian, B., & Banerjee, I. (2022). The Growing Importance of mixed-methods Research in Health. *Nepal Journal of Epidemiology*, 12(1), 1175–1178. NCBI. <https://pmc.ncbi.nlm.nih.gov/articles/PMC9057171/>
- Wei, W., Prasetyo, Y. T., Belmonte, Z. J. A., Cahigas, M. M. L., Nadlifatin, R., & Gumasing, M. J. J. (2025). Applying the technology acceptance model – Theory of planned behavior (TAM-TPB) model to study the acceptance of building information modeling (BIM) in green building in China. *Acta Psychologica*, 254, 104790–104790. <https://doi.org/10.1016/j.actpsy.2025.104790>
- Whitaker, C., Stevelink, S., & Fear, N. (2017). The Use of Facebook in Recruiting Participants for Health Research Purposes: A Systematic Review. *Journal of Medical Internet Research*, 19(8), e290. <https://doi.org/10.2196/jmir.7071>
- Wibowo, G., Purnomosidi, B. D. P., & Andriyani, W. (2025). Multiple Linier Regression Analysis Effects of Education Media on Student Experience and Satisfaction. *Sinkron*, 9(4), 2061–2069. <https://doi.org/10.33395/sinkron.v9i4.15293>
- Wiganda, S., & Barqiah, S. (2023). How Subjective Norms, Religiosity, and Attitude Affect Purchase Intention for Enima Products in Surabaya. *Jurnal Ekonomi*, 12(2). <https://ejournal.seaninstitute.or.id/index.php/Ekonomi/article/view/1817/1440>

- Wijaya, I. A., & Harsoyo, T. D. (2025). The Influence of Attitude, Social Influence, and Perceived Behavioural Control (PBC) on Purchase Intention in Second Hand Clothing. *Formosa Journal of Science and Technology*, 4(7), 2201–2212. <https://doi.org/10.55927/fjst.v4i7.181>
- Wilcox, A. B., Gallagher, K. D., Boden-Albala, B., & Bakken, S. R. (2012). Research Data Collection Methods. *Medical Care*, 50(7), S68–S73. <https://doi.org/10.1097/mlr.0b013e318259c1e7>
- Willie, M. M. (2023). Distinguishing Between Population and Target Population: A Mini Review. *Surgery Research Journal*, 3(2), 1–2. <https://doi.org/10.33425/2768-0428.1027>
- Wong, S.-L., Hsu, C.-C., & Chen, H.-S. (2018). To Buy or Not to Buy? Consumer Attitudes and Purchase Intentions for Suboptimal Food. *International Journal of Environmental Research and Public Health*, 15(7), 1431. <https://doi.org/10.3390/ijerph15071431>
- Wu, K.-S., & Teng, Y.-M. (2011). Applying the extended theory of planned behavior to predict the intention of visiting a green hotel. *African Journal of Business Management*, 5(17), 7579–7587. <https://doi.org/10.5897/ajbm11.684>
- Khafka, E., Sinoimeri, D., & Teta, J. (2024). Evaluating the Impact of E-Governance on Public Service Improvement in Albania: A Quantitative Analysis. *Sustainability*, 16(24), 10896. <https://doi.org/10.3390/su162410896>
- Xiao, A., Yang, S., & Iqbal, Q. (2018). Factors Affecting Purchase Intentions in Generation Y: An Empirical Evidence from Fast Food Industry in Malaysia. *Administrative Sciences*, 9(1), 4. <https://doi.org/10.3390/admsci9010004>
- Yadav, R., & Pathak, G. S. (2017). Determinants of Consumers' Green Purchase Behavior in a Developing Nation: Applying and Extending the Theory of Planned Behavior. *Ecological Economics*, 134(1), 114–122. <https://doi.org/10.1016/j.ecolecon.2016.12.019>
- Yang, H., & Zhou, L. (2011). Extending TPB and TAM to mobile viral marketing: An exploratory study on American young consumers' mobile viral marketing attitude, intent and behavior. *Journal of Targeting, Measurement and Analysis for Marketing*, 19(2), 85–98. <https://doi.org/10.1057/jt.2011.11>
- Yogananda, A. P. Y., & Nair, P. B. (2019). Green Food Product Purchase Intention: Factors Influencing Malaysian Consumers. *Pertanika Journal of Social Science and Humanities*, 27(2), 1131–1144. https://www.researchgate.net/publication/334112670_Green_Food_Product_Purchase_Intention_Factors_Influencing_Malaysian_Consumers

- Yoharis, B., Rahel, K., & Lusianah, L. (2025). Factors influencing green purchase intention in fashion: Environmental knowledge, green marketing, social influence, and eWOM. *Edelweiss Applied Science and Technology*, 9(8), 1652–1670. <https://doi.org/10.55214/2576-8484.v9i8.9688>
- Yu, Q. (2023). Research on Factors Affecting Consumers' Purchase Intention. *Advances in Economics Management and Political Sciences*, 37(1), 61–66. <https://doi.org/10.54254/2754-1169/37/20231835>
- Yuan, Z., Rasiah, R., Hou, Y., & Li, S. (2023). Green Purchase Behavior in Malaysia: A Mediation Effect Analysis Based on the TPB. *Environment-Behaviour Proceedings Journal*, 8(26), 345–352. <https://doi.org/10.21834/e-bpj.v8i26.5179>
- Yusiana, R., Hurriyati, R., & Widjadjanta, B. (2025). Framework for Green Purchase Intention Based on Brand and Trust. *Advances in Economics, Business and Management Research*, 342, 77–85. https://doi.org/10.2991/978-94-6463-817-2_10
- Zahan, I., Kaium, M. A., & Rahman, M. S. (2024). Accept or Reject? Investigating Customers' Attitudes Toward Green Cosmetics in Bangladesh. *Journal of Sustainability Research*, 6(2). <https://doi.org/10.20900/jsr20240025>
- Zeithaml, V. A. (1988). Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, 52(3), 2–22. <https://doi.org/10.1177/002224298805200302>
- Zhan, X., Lian, X., & Dai, S. (2025). Correcting or Concealing? The Impact of Digital Transformation on the Greenwashing Behavior of Heavily Polluting Enterprises. *Sustainability*, 17(1), 356–356. <https://doi.org/10.3390/su17010356>
- Zhao, H., Yao, X., Liu, Z., & Yang, Q. (2021). Impact of Pricing and Product Information on Consumer Buying Behavior with Customer Satisfaction in a Mediating Role. *Frontiers in Psychology*, 12(1). [frontiersin. https://doi.org/10.3389/fpsyg.2021.720151](https://doi.org/10.3389/fpsyg.2021.720151)
- Zhuang, W., Luo, X., & Riaz, M. U. (2021). On the Factors Influencing Green Purchase Intention: A Meta-Analysis Approach. *Frontiers in Psychology*, 12(644020). <https://doi.org/10.3389/fpsyg.2021.644020>
- Zyoud, M. M., Bsharat, T. R. K., & Dweikat, K. A. (2024). Quantitative Research Methods: Maximizing Benefits, Addressing Limitations, and Advancing Methodological Frontiers. *ISRG Journal of Multidisciplinary Studies (ISRGJMS)*, II(IV), 11–14. <https://doi.org/10.5281/zenodo.10939470>

APPENDICES

Appendix 3.1: Survey Questionnaire



UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT

BACHELOR OF INTERNATIONAL BUSINESS (HONS)

Drivers of Generation Z Consumers' Purchase Intention Toward Green Skin Care Products

The purpose of this survey is to conduct research to investigate the “Drivers of Generation Z Consumers' Purchase Intention Toward Green Skin Care Products”.

Instruction:

1. This questionnaire consists of three sections. Please answer **ALL** questions in every sections.
2. Completion of this form will take you approximately 10 to 15 minutes.
3. The contents and response of this questionnaire will be kept strictly confidential.

I sincerely and deeply appreciate your time, participation, and kind cooperation in completing this survey.

Yours faithfully,

Name	Student ID	Email
Lee Ken Hau	2105905	lisickilee@lutar.my

PERSONAL DATA PROTECTION NOTICE

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

1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:
 - a) Name
 - b) Identity card
 - c) Place of Birth
 - d) Address
 - e) Education History
 - f) Employment History
 - g) Medical History
 - h) Blood type
 - i) Race
 - j) Religion
 - k) Photo
 - l) Personal Information and Associated Research Data

2. The purposes for which your personal data may be used are inclusive but not limited to:
 - a) For assessment of any application to UTAR
 - b) For processing any benefits and services
 - c) For communication purposes
 - d) For advertorial and news
 - e) For general administration and record purposes
 - f) For enhancing the value of education
 - g) For educational and related purposes consequential to UTAR
 - h) For replying any responds to complaints and enquiries
 - i) For the purpose of our corporate governance
 - j) For the purposes of conducting research/ collaboration

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

4. Any personal information retained by UTAR shall be destroyed and/or

deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

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

Consent:

6. By submitting or providing your personal data to UTAR, you had consented and agreed for your personal data to be used in accordance to the terms and conditions in the Notice and our relevant policy.
7. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.
8. You may access and update your personal data by writing to us at lisickilee@lutar.my.

Acknowledgment of Notice

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

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

.....
Name:
Date:

Section A: Demographic Profile

In this section, please select **ONE** answer for each question given below.

1. Gender:
 - Male
 - Female

2. Age Group:
 - 15 – 19 years old
 - 20 – 24 years old
 - 25 – 30 years old

3. Income Level:
 - Below RM1,000
 - RM1,001 – RM2000
 - RM2,001 – RM3,000
 - Above RM3000

4. Level of Education:
 - Primary
 - Secondary
 - Pre-university/College
 - University

Section B: General Information

In this section, please read each question attentively and choose **ONE** answer for each question given below.

1. Do you purchase green skin care products?
 - Yes
 - No (Thank you for your participation)

2. Which of the green skin care brands do you prefer the most?
 - Joi
 - Hygr
 - Root Remedies
 - Claire Organics
 - The Mineraw
 - Aesop
 - L'Occitane
 - Others (please specify:_____)

3. How much do you spend to purchase green skin care products?
 - Below RM100
 - RM101 – RM300
 - RM301 – RM500
 - Above RM500

4. How often do you purchase green skin care products?
 - Once every few months
 - 2-3 times a year
 - Monthly
 - More than once a month

5. Where do you usually purchase green skincare products?

- Online stores
- Physical retail stores
- Brand official websites
- Social media platforms
- Others (please specify: _____)

Section C: Construct Measurement

Please indicate how strong you agree or disagree with each statement whereby placing a circle from 1 (Strongly Disagree) to 5 (Strongly Agree).

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

For each of the following statements, kindly circle **ONE** number that represents your opinion the most.

No.	Statement	SD	D	N	A	SA
Purchase Intention						
<i>Purchase Intention refers likelihood and willingness to buy based on personal evaluation and readiness.</i>						
1.	The possibility I would consider buying this green skin care products are high.	1	2	3	4	5
2.	I would buy this green skin care products if I happened to see it.	1	2	3	4	5
3.	I would actively seek out this green skin care products in a place to purchase it.	1	2	3	4	5
4.	If I were going to purchase a green skin care product, I would buy this green skin care brand.	1	2	3	4	5
Attitude						
<i>Attitude defines consumers' overall evaluation of a product, including its benefits and their emotional and cognitive responses, influencing purchase likelihood.</i>						
1.	Regarding green skincare products, I have a favourable attitude.	1	2	3	4	5
2.	Even after being more expensive, I like to use green skincare products over conventional (regular) ones.	1	2	3	4	5
3.	I prefer buying green skincare products because they are more favourable.	1	2	3	4	5

4.	In my opinion, buying green skincare products is positive behaviour.	1	2	3	4	5
5.	Purchasing green skincare products is good decision.	1	2	3	4	5
Subjective Norms						
<i>Subjective norms refer to the influence of friends, family, and social circles on consumers' purchase decisions.</i>						
1.	I prefer to buy green skincare products when my family members suggest them.	1	2	3	4	5
2.	I prefer to buy green skincare products when my friends recommend them.	1	2	3	4	5
3.	I learned to differentiate green skincare products from conventional (regular) ones from my parents.	1	2	3	4	5
4.	I learned to differentiate green skincare products from conventional (regular) ones from my friends.	1	2	3	4	5
5.	Social media can influence my decision to purchase green skincare products.	1	2	3	4	5
Perceived Behavioural Control						
<i>Perceived behavioral control means consumers' sense of their ability, resources, and confidence to make a purchase.</i>						
1.	I have the affordability to purchase green skincare products.	1	2	3	4	5
2.	Going green would be entirely within my control (decision, power).	1	2	3	4	5
3.	I am willing to purchase green skincare products.	1	2	3	4	5
4.	I can identify shops or producers in my area that supply green skin care products.	1	2	3	4	5
5.	I have time to search for green skincare products.	1	2	3	4	5
Price						

<i>Price means consumers' perception of a product's cost, affordability, and fairness relative to its value.</i>						
1.	I think the price of green skin care products is fairly high.	1	2	3	4	5
2.	I am willing to pay more for green skin care products.	1	2	3	4	5
3.	I will switch to using green skin care products if they are priced the same as my usual brands.	1	2	3	4	5
4.	I will switch to using green skin care products if they are less expensive.	1	2	3	4	5
Environmental Knowledge						
<i>Environmental knowledge is consumers' understanding of environmental issues and product benefits, influencing their evaluation and adoption of sustainable options.</i>						
1.	I can identify green or environmentally friendly skin care products.	1	2	3	4	5
2.	I know how to reduce skin care-related waste, such as recycling product containers, bottles, and packaging materials.	1	2	3	4	5
3.	I am confident in my knowledge about environmental issues relevant to the green skin care industry.	1	2	3	4	5
4.	I know environmental terms (e.g., greenhouse gases, climate change, and global warming), and I understand how they relate to the use of green skin care products.	1	2	3	4	5
5.	I know that green skin care products cause less environmental damage than conventional (regular) ones.	1	2	3	4	5

-Thank You for Your Participation-

Appendix 3.2: Ethical Clearance Approval Official Letter



UNIVERSITI TUNKU ABDUL RAHMAN DU012(A)
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Re: U/SERC/78-669/2026

7 January 2026

Dr Yeong Wai Mun
Head, Department of International Business
Faculty of Accountancy and Management
Universiti Tunku Abdul Rahman
Jalan Sungai Long
Bandar Sungai Long
43000 Kajang, Selangor

Dear Dr Yeong,

Ethical Approval For Research Project/Protocol

We refer to your application for ethical approval for your students' research project from Bachelor of International Business (Honours) programme enrolled in course UKMZ3016. We are pleased to inform you that the application has been approved under Expedited Review.

The details of the research projects are as follows:

No.	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	The Impact of AI Such as ChatGPT on Students' Learning and Daily Life	Chin Yin Tong	Dr Esw Hooi Cheng	7 January 2026 – 6 January 2027
2.	Factor that Influences User Trust in Platform-based Business	Nicholas Tang Kien Yuan	Dr Jayamalathi a/p Jayabalan	
3.	Do Students Prefer Working with Flexible Hours and Locations or Fixed Working Hours and Location	Tan Song Ze	Dr Kalaivani a/p Jayaraman	
4.	Factors of E-commerce That Influence Customer Satisfaction Among Gen Z in Malaysia	Yap Chen Khai	Dr Komathi a/p Munnsamy	
5.	A Case Study of Patient Satisfaction in a Private Clinic in Negeri Sembilan	Liew Xin Yee	Ms Lim Yee Wui	
6.	The Influence of Trend Culture on Gen Z's Purchase Decision for Collectible Items	Peggy Loh Zi Xuan	Dr Foo Meow Yee	
7.	Determinants of In-game Purchase Intention Among Malaysian Youth Online Gamers	Lim Jing Hao	Dr Yeong Wai Mun	
8.	Consumer Buying Behaviour Towards Consumer Products in Malaysia	Tee Xin Zhuen	Dr Foo Meow Yee	
9.	The Impact of Micromanagement on Employee Performance Among Sales Agents in Malaysia	Chen Yu Wen Sharen	Dr Jayamalathi a/p Jayabalan	
10.	Drivers of Generation Z Consumers' Purchase Intention Toward Green Skin Care Products	Lee Ken Hau	Dr Malathi Nair a/p G Narayana Nair	
11.	The Influence of Company Benefits on Job Outcomes Among Malaysians' Employees	Khong Yuae Ching	Dr Omar Hamdan Mohammad Alkharabsbeh	
12.	The Influence of Organizational Communication, Coworker Support, and Job Stress with the Mediating Role of Job Satisfaction on Employees' Motivation	Phun Yan Jun	Ms Hooi Pik Hua @Rae Hooi	

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No.	Research Title	Student's Name	Supervisor's Name	Approval Validity
13.	The Impact of Brand Equity Dimensions on Brand Loyalty Among Generation Z in the Sports Footwear Industry	Ng Zhen Yang	Dr Malathi Nair a/p G Narayana Nair	7 January 2026 – 6 January 2027
14.	The Influence of Social Media Influencers on Malaysian Consumers' Purchase Intention Toward International Brands	Lim Wei Qi	Dr Foo Meow Yee	
15.	A Study of Reverse Logistic and Its Role in Brand Image and Customer Perception	Chang Kar Tung		
16.	The Role of Cross-Border E-Commerce Does Promote Buying Intentions for Consumers	Ho Jia Rok		
17.	Understanding the Influence of Online Scams on Consumer Purchase Intentions Among Malaysian Social Media Users	Aw Yong See Win	Dr Choo Siew Ming	
18.	Exploring the Intention of Reside in Retirement Villages Among Gen Z in Malaysia	Teo Yi Qi	Ms Goh Poh Jin	
19.	The Influence of Brand Trust on Young Adults' Preferences for Malaysia-Based Coffee Brands	Liau Wei Sim	Dr Malathi Nair a/p G Narayana Nair	
20.	Factors Influencing Malaysian Consumers' Purchase Intention Toward International Beauty Products	Tan Sze Wing	Dr Foo Meow Yee	
21.	Consumer Choice of Sustainable Mobility: A Study of Determinants Influencing Electric Vehicle Purchase Intention	Shao Yuhao	Ms Goh Poh Jin	
22.	The Impact of Product Variety, Promotions, Accessibility, Mall Cleanliness & Maintenance on Shoppers' Revisit Intention in Urban Shopping Malls: A Functional Value Analysis	Tan Yue Wey	Dr Choo Siew Ming	
23.	Young Consumers' Purchase Intention Toward Green Products in Malaysia: Drivers and Challenges in Green Marketing	Chin Zhi Qian		
24.	Chasing the Surprise: Understanding What Drives Impulse Buying in Blind Box Market Among Malaysian Generation Z	Tan Zung Yan	Ms Tai Lit Cheng	
25.	The Impact of Job Performance, Job Satisfaction Skills Development and AI Adoption on Employee Commitment	Hoo Yuan Yien	Dr Omar Hamdan Mohammad Alkharabsheh	
26.	Independent Journeys: Investigating the Key Determinants of Gen Z Female Travelers' Solo Travel Intentions	Chong Wai Sam	Ms Goh Poh Jin	
27.	Understanding Generation Z Consumer Behavior: The Role of Data-Driven Marketing in Shaping Customer Engagement in Online Shopping	Audrey Chong Jia Wen	Dr Choo Siew Ming	
28.	The Influence of Job Characteristics on Meaningful Work and Quiet Quitting in Multinational Corporations	Dominic Koh Wen Cong	Dr Low Mei Peng	
29.	Determinants of Entrepreneurial Intentions Among Female University Students	Victoria Wee Yuet Fang	Dr Kalaivani a/p Jayaraman	
30.	Factors that Influence the EV Purchase Intention: The Moderating Role of Incentive Policy	Kuan Jo Yin	Ms Goh Poh Jin	
31.	Understanding the Dynamics of Short-Form Video Marketing: An Analysis of Purchase Intention Among Young Consumers in Malaysia	Chia Zhi Han	Dr Choo Siew Ming	
32.	Psychological Stress Among Gen Z Malaysian Students Preparing for International Education Abroad	Dania Natasya Blinti Nagayaya	Dr Malathi Nair a/p G Narayana Nair	

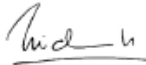
The conduct of this research is subject to the following:

- (1) The participants' informed consent be obtained prior to the commencement of the research;
- (2) Confidentiality of participants' personal data must be maintained; and
- (3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.
- (4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

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

Thank you.

Yours sincerely,



Professor Dr Zuraidah Abd Manaf
Chairman
UTAR Scientific and Ethical Review Committee

c.c. Dean, Faculty of Accountancy and Management

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Appendix 3.3: SPSS Result (Pilot Test – Reliability Test)

Case Processing Summary

		N	%
Cases	Valid	45	100.0
	Excluded ^a	0	.0
	Total	45	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.777	4

Item Statistics

	Mean	Std. Deviation	N
P11	4.49	.843	45
P12	4.51	.695	45
P13	4.38	.834	45
P14	4.31	.874	45

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P11	13.20	3.573	.651	.684
P12	13.18	4.422	.496	.764
P13	13.31	3.856	.551	.738
P14	13.38	3.513	.634	.694

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
17.69	6.356	2.521	4

Case Processing Summary

		N	%
Cases	Valid	45	100.0
	Excluded ^a	0	.0
	Total	45	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.811	5

Item Statistics

	Mean	Std. Deviation	N
ATT1	4.44	.586	45
ATT2	4.20	.815	45
ATT3	4.36	.933	45
ATT4	4.44	.813	45
ATT5	4.56	.693	45

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ATT1	17.56	6.480	.592	.783
ATT2	17.80	5.573	.612	.770
ATT3	17.64	4.825	.706	.740
ATT4	17.56	6.025	.477	.812
ATT5	17.44	5.889	.661	.758

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.00	8.591	2.931	5

Case Processing Summary

		N	%
Cases	Valid	45	100.0
	Excluded ^a	0	.0
	Total	45	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.760	5

Item Statistics

	Mean	Std. Deviation	N
SN1	4.33	.739	45
SN2	4.42	.657	45
SN3	4.36	.773	45
SN4	4.40	.809	45
SN5	4.47	.661	45

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SN1	17.64	4.598	.521	.719
SN2	17.56	4.889	.508	.724
SN3	17.62	4.240	.614	.683
SN4	17.58	4.659	.424	.758
SN5	17.51	4.665	.594	.696

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.98	6.795	2.607	5

Case Processing Summary

		N	%
Cases	Valid	45	100.0
	Excluded ^a	0	.0
	Total	45	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.786	5

Item Statistics

	Mean	Std. Deviation	N
PBC1	4.33	.798	45
PBC2	4.27	.837	45
PBC3	4.47	.757	45
PBC4	4.29	.843	45
PBC5	4.33	.977	45

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PBC1	17.36	6.734	.545	.752
PBC2	17.42	6.886	.465	.777
PBC3	17.22	6.631	.622	.730
PBC4	17.40	6.745	.496	.767
PBC5	17.36	5.462	.703	.694

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.69	9.628	3.103	5

Case Processing Summary

		N	%
Cases	Valid	45	100.0
	Excluded ^a	0	.0
	Total	45	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.745	4

Item Statistics

	Mean	Std. Deviation	N
P1	4.42	.753	45
P2	4.29	.695	45
P3	4.22	.823	45
P4	4.47	.842	45

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P1	12.98	3.704	.430	.743
P2	13.11	3.556	.565	.676
P3	13.18	2.968	.661	.611
P4	12.93	3.245	.515	.702

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
17.40	5.518	2.349	4

Case Processing Summary

		N	%
Cases	Valid	45	100.0
	Excluded ^a	0	.0
	Total	45	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.812	5

Item Statistics

	Mean	Std. Deviation	N
EK1	4.53	.625	45
EK2	4.40	.688	45
EK3	4.22	.876	45
EK4	4.49	.626	45
EK5	4.36	1.026	45

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EK1	17.47	6.573	.564	.789
EK2	17.60	6.382	.552	.789
EK3	17.78	5.040	.754	.723
EK4	17.51	7.028	.407	.824
EK5	17.64	4.371	.781	.716

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.00	8.773	2.962	5

Appendix 4.1: SPSS Result (Descriptive Analysis – Demographic Information)

@1.Doyoupurchasegreenskincareproducts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (Thank You For Your Participation)	3	1.3	1.3	1.3
	Yes	224	98.7	98.7	100.0
	Total	227	100.0	100.0	

@2.AgeGroup

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15 - 19 years old	7	3.1	3.1	3.1
	20 - 24 years old	156	69.6	69.6	72.8
	25 - 30 years old	61	27.2	27.2	100.0
	Total	224	100.0	100.0	

@3.IncomeLevel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Above RM3000	45	20.1	20.1	20.1
	Below RM1,000	69	30.8	30.8	50.9
	RM1,001 - RM2,000	50	22.3	22.3	73.2
	RM2,001 - RM3000	60	26.8	26.8	100.0
	Total	224	100.0	100.0	

@4.LevelofEducation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Pre-university/College	47	21.0	21.0	21.0
	Secondary	27	12.1	12.1	33.0
	University	150	67.0	67.0	100.0
	Total	224	100.0	100.0	

Appendix 4.2: SPSS Result (Descriptive Analysis – General Information)

@1.Doyoupurchasegreenskincareproducts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (Thank You For Your Participation)	3	1.3	1.3	1.3
	Yes	224	98.7	98.7	100.0
	Total	227	100.0	100.0	

@2.Whichofthegreenskincarebrandsdoyoupreferthemost

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ATOMY DERMA REAL CICA SKIN CARE SET - CICA CREAM	1	.4	.4	.4
	Claire Organics	4	1.8	1.8	2.2
	Claire Organics, L'Occitane	11	4.9	4.9	7.1
	Claire Organics, The Mineraw	1	.4	.4	7.6
	Claire Organics, The Mineraw, L'Occitane	2	.9	.9	8.5
	Fruiser, Acnes	1	.4	.4	8.9
	HerbaLine	1	.4	.4	9.4
	Hygr	6	2.7	2.7	12.1
	Hygr, Claire Organics, L'Occitane	14	6.3	6.3	18.3
	Hygr, L'Occitane	9	4.0	4.0	22.3
	Hygr, L'Occitane, COSRX	1	.4	.4	22.8
	Hygr, Root Remedies	1	.4	.4	23.2
	Hygr, Root Remedies, Claire Organics	1	.4	.4	23.7
	Hygr, Root Remedies, The Mineraw	2	.9	.9	24.6
	Innisfree	1	.4	.4	25.0
	Joi	8	3.6	3.6	28.6
	Joi,	1	.4	.4	29.0
	Joi, Claire Organics	2	.9	.9	29.9
	Joi, Claire Organics, L'Occitane	5	2.2	2.2	32.1
	Joi, Hygr	7	3.1	3.1	35.3
	Joi, Hygr, Claire Organics	13	5.8	5.8	41.1
	Joi, Hygr, Claire Organics, L'Occitane	3	1.3	1.3	42.4
	Joi, Hygr, L'Occitane	3	1.3	1.3	43.8
	Joi, Hygr, Root Remedies, Claire Organics	12	5.4	5.4	49.1

Joi, Hygr, Root Remedies, Claire Organics, The Mineraw, L'Occitane	17	7.6	7.6	56.7
Joi, Hygr, The Mineraw, L'Occitane	1	.4	.4	57.1
Joi, L'Occitane	3	1.3	1.3	58.5
Joi, L'Occitane,	1	.4	.4	58.9
Joi, Root Remedies	1	.4	.4	59.4
Joi, Root Remedies, Claire Organics, The Mineraw	1	.4	.4	59.8
Joi, Root Remedies, L'Occitane	1	.4	.4	60.3
Joi, Root Remedies, The Mineraw	18	8.0	8.0	68.3
L'Occitane	34	15.2	15.2	83.5
L'Occitane,	1	.4	.4	83.9
Root Remedies	1	.4	.4	84.4
Root Remedies, Claire Organics	1	.4	.4	84.8
Root Remedies, Claire Organics, L'Occitane	3	1.3	1.3	86.2
Root Remedies, Claire Organics, The Mineraw	1	.4	.4	86.6
Root Remedies, Claire Organics, The Mineraw, L'Occitane	17	7.6	7.6	94.2
Root Remedies, The Mineraw, L'Occitane	12	5.4	5.4	99.6
The Mineraw	1	.4	.4	100.0
Total	224	100.0	100.0	

@3.Howmuchdoyouspendtopurchasegreenskincareproducts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Above RM500	24	10.7	10.7	10.7
	Below RM100	60	26.8	26.8	37.5
	RM101 - RM300	119	53.1	53.1	90.6
	RM301 - RM500	21	9.4	9.4	100.0
	Total	224	100.0	100.0	

@4.Howoftendoyoupurchasegreenskincareproducts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 - 3 times a year	95	42.4	42.4	42.4
	Monthly	29	12.9	12.9	55.4
	More than once a month	14	6.3	6.3	61.6
	Once every few months	86	38.4	38.4	100.0
	Total	224	100.0	100.0	

@5.Wheredoyouusuallypurchasegreenskincareproducts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Online stores	16	7.1	7.1	7.1
	Online stores, Brand official websites	31	13.8	13.8	21.0
	Online stores, Brand official websites, Social media platforms	24	10.7	10.7	31.7
	Online stores, Physical retail stores	32	14.3	14.3	46.0
	Online stores, Physical retail stores, Brand official websites	15	6.7	6.7	52.7
	Online stores, Physical retail stores, Brand official websites, Social media platforms	12	5.4	5.4	58.0
	Online stores, Physical retail stores, Social media platforms	4	1.8	1.8	59.8
	Online stores, Social media platforms	20	8.9	8.9	68.8
	Physical retail stores	35	15.6	15.6	84.4
	Physical retail stores, Brand official websites	10	4.5	4.5	88.8
	Physical retail stores, Brand official websites, Social media platforms	1	.4	.4	89.3
	Physical retail stores, Social media platforms	21	9.4	9.4	98.7
	Social media platforms	3	1.3	1.3	100.0
	Total	224	100.0	100.0	

Appendix 4.3: Overview of the Descriptive Statistics of the Variables

Name of Constructs	Mean	Median	Mode	Standard Deviation
PI1	4.23	4.00	5	0.946
PI2	4.09	4.00	4	0.989
PI3	4.09	4.00	5	0.989
PI4	4.16	4.00	4	0.976
ATT1	4.19	4.00	5	0.935
ATT2	4.03	4.00	4	1.039
ATT3	4.10	4.00	4	0.986
ATT4	4.14	4.00	5	0.990
ATT5	4.20	4.00	4	0.933
SN1	4.24	4.00	5	0.977
SN2	4.23	4.00	4	0.926
SN3	4.10	4.00	5	1.075
SN4	4.14	4.00	5	1.026
SN5	4.23	4.00	5	1.001
PBC1	4.11	4.00	5	1.062
PBC2	4.12	4.00	4	0.986
PBC3	4.29	4.00	5	0.960
PBC4	4.09	4.00	4	0.987
PBC5	4.13	4.00	5	1.080
P1	4.19	4.00	4	0.943
P2	4.05	4.00	5	1.032
P3	4.19	4.00	5	1.016
P4	4.29	4.00	5	0.962
EK1	4.13	4.00	5	1.017
EK2	4.19	4.00	5	1.003
EK3	4.08	4.00	5	1.032
EK4	4.10	4.00	5	1.028
EK5	4.21	4.00	5	0.976

Appendix 4.4: SPSS Result (Actual Study – Reliability Test)

Case Processing Summary

		N	%
Cases	Valid	224	100.0
	Excluded ^a	0	.0
	Total	224	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.898	4

Item Statistics

	Mean	Std. Deviation	N
PI1	4.23	.946	224
PI2	4.09	.989	224
PI3	4.09	.989	224
PI4	4.16	.976	224

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PI1	12.34	6.898	.776	.867
PI2	12.48	6.762	.759	.873
PI3	12.48	6.663	.784	.864
PI4	12.41	6.771	.773	.868

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.57	11.646	3.413	4

Case Processing Summary

		N	%
Cases	Valid	224	100.0
	Excluded ^a	0	.0
	Total	224	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.901	5

Item Statistics

	Mean	Std. Deviation	N
ATT1	4.19	.935	224
ATT2	4.03	1.039	224
ATT3	4.10	.986	224
ATT4	4.14	.990	224
ATT5	4.20	.933	224

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ATT1	16.47	11.228	.801	.870
ATT2	16.63	11.247	.688	.895
ATT3	16.56	10.821	.822	.865
ATT4	16.53	11.461	.698	.892
ATT5	16.46	11.380	.774	.876

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.67	17.121	4.138	5

Case Processing Summary

		N	%
Cases	Valid	224	100.0
	Excluded ^a	0	.0
	Total	224	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.891	5

Item Statistics

	Mean	Std. Deviation	N
SN1	4.24	.977	224
SN2	4.23	.926	224
SN3	4.10	1.075	224
SN4	4.14	1.026	224
SN5	4.23	1.001	224

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SN1	16.69	11.335	.794	.855
SN2	16.71	11.832	.757	.864
SN3	16.83	11.044	.744	.866
SN4	16.79	11.635	.690	.878
SN5	16.71	11.724	.699	.876

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.93	17.516	4.185	5

Case Processing Summary

		N	%
Cases	Valid	224	100.0
	Excluded ^a	0	.0
	Total	224	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.913	5

Item Statistics

	Mean	Std. Deviation	N
PBC1	4.11	1.062	224
PBC2	4.12	.986	224
PBC3	4.29	.960	224
PBC4	4.09	.987	224
PBC5	4.13	1.080	224

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PBC1	16.63	11.965	.822	.884
PBC2	16.62	13.026	.720	.905
PBC3	16.45	12.697	.805	.888
PBC4	16.64	12.858	.749	.899
PBC5	16.60	11.998	.797	.889

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.74	19.128	4.374	5

Case Processing Summary

		N	%
Cases	Valid	224	100.0
	Excluded ^a	0	.0
	Total	224	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.846	4

Item Statistics

	Mean	Std. Deviation	N
P1	4.19	.943	224
P2	4.05	1.032	224
P3	4.19	1.016	224
P4	4.29	.962	224

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P1	12.54	6.734	.628	.827
P2	12.67	6.285	.647	.821
P3	12.54	6.044	.725	.785
P4	12.43	6.237	.735	.782

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.72	10.694	3.270	4

Case Processing Summary

		N	%
Cases	Valid	224	100.0
	Excluded ^a	0	.0
	Total	224	100.0

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

Reliability Statistics

Cronbach's Alpha	N of Items
.929	5

Item Statistics

	Mean	Std. Deviation	N
EK1	4.13	1.017	224
EK2	4.19	1.003	224
EK3	4.08	1.032	224
EK4	4.10	1.028	224
EK5	4.21	.976	224

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EK1	16.58	12.972	.804	.914
EK2	16.51	13.139	.792	.916
EK3	16.62	12.713	.832	.909
EK4	16.60	12.976	.791	.917
EK5	16.50	13.004	.843	.907

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.70	19.897	4.461	5

Appendix 4.5: SPSS Result (Pearson Correlation Coefficient Analysis)

Correlations

		PI_Mean	ATT_Mean	SN_Mean	PBC_Mean	P_Mean	EK_Mean
PI_Mean	Pearson Correlation	1	.775**	.718**	.742**	.727**	.706**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001
	N	224	224	224	224	224	224
ATT_Mean	Pearson Correlation	.775**	1	.755**	.786**	.749**	.705**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	<.001
	N	224	224	224	224	224	224
SN_Mean	Pearson Correlation	.718**	.755**	1	.757**	.766**	.715**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001
	N	224	224	224	224	224	224
PBC_Mean	Pearson Correlation	.742**	.786**	.757**	1	.790**	.704**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001
	N	224	224	224	224	224	224
P_Mean	Pearson Correlation	.727**	.749**	.766**	.790**	1	.720**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		<.001
	N	224	224	224	224	224	224
EK_Mean	Pearson Correlation	.706**	.705**	.715**	.704**	.720**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	
	N	224	224	224	224	224	224

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

Appendix 4.6: SPSS Result (Multiple Linear Regression Analysis)

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	.827 ^a	.685	.677	.48455	.685	94.663	5	218	<.001

a. Predictors: (Constant), EK_Mean, PBC_Mean, SN_Mean, ATT_Mean, P_Mean

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	111.128	5	22.226	94.663	<.001 ^b
	Residual	51.184	218	.235		
	Total	162.312	223			

a. Dependent Variable: PI_Mean

b. Predictors: (Constant), EK_Mean, PBC_Mean, SN_Mean, ATT_Mean, P_Mean

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	.287	.182		1.570	.118
	ATT_Mean	.351	.072	.341	4.888	<.001
	SN_Mean	.111	.070	.109	1.576	.117
	PBC_Mean	.157	.071	.161	2.206	.028
	P_Mean	.138	.075	.132	1.848	.066
	EK_Mean	.172	.059	.180	2.935	.004

a. Dependent Variable: PI_Mean

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error				Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.287	.182		1.570	.118	-.073	.646		
	ATT_Mean	.351	.072	.341	4.888	<.001	.210	.493	.298	3.355
	SN_Mean	.111	.070	.109	1.576	.117	-.028	.249	.305	3.280
	PBC_Mean	.157	.071	.161	2.206	.028	.017	.298	.270	3.700
	P_Mean	.138	.075	.132	1.848	.066	-.009	.285	.283	3.539
	EK_Mean	.172	.059	.180	2.935	.004	.056	.287	.386	2.590

a. Dependent Variable: PI_Mean

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	ATT_Mean	SN_Mean	PBC_Mean	P_Mean	EK_Mean
1	1	5.932	1.000	.00	.00	.00	.00	.00	.00
	2	.027	14.828	.96	.01	.01	.03	.01	.03
	3	.014	20.532	.00	.06	.01	.12	.01	.91
	4	.010	24.604	.01	.19	.76	.17	.04	.04
	5	.009	25.165	.00	.53	.11	.14	.39	.00
	6	.008	27.786	.02	.21	.11	.54	.55	.01

a. Dependent Variable: PI_Mean



UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF ACCOUNTANCY AND MANAGEMENT
UNDERGRADUATE FINAL YEAR PROJECT
Final Year Project Assessment Form - Report

Final Year Project Title:

Drivers of Generation Z Consumers' Purchase Intention Toward Green Skin Care Products

Name:	Lee Ken Hau	Student ID:	2105905
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No	Criteria	Excellent (8 - 10 marks)	Good (5 - 7 marks)	Fair (3 - 4 marks)	Poor (0 - 2 marks)	Awarded
1	Title and Abstract	Clear, concise, and informative; abstract summarizes all key elements effectively.	Title and abstract are clear but may miss some key elements.	Title and abstract are somewhat unclear or incomplete.	Title and abstract are unclear and do not summarize key elements.	
2	Introduction	Comprehensive background and context; clearly stated research question/hypothesis.	Adequate background; some context missing; research question/hypothesis is stated.	Background and context are vague; research question/hypothesis is unclear.	Background and context are missing or inadequate; research question/hypothesis is absent.	
3	Literature Review	Extensive review, critical analysis, and synthesis of relevant literature.	Adequate review with some analysis of relevant literature.	Limited review with minimal analysis of relevant literature.	Inadequate or no review of relevant literature.	
4	Problem Statement & Objectives	A clear, specific, and well-defined research problem was identified, including its significance and relevance. Clearly defined, specific, and measurable objectives.	Clearly stated problem, but may lack specificity or clarity in its significance. Objectives are stated but may lack specificity or measurability.	Problem statement is present but lacks clarity, specificity, or relevance. Objectives are vague or not well-defined.	The problem statement is unclear or missing. Objectives are absent or unclear.	
5	Methodology	Detailed, appropriate methods with clear rationale and feasibility.	Methods are outlined but some details or rationale may be lacking.	Methods are mentioned but lack clarity or rationale.	Methods are unclear, inappropriate, or not stated.	
6	Results	Results are clearly presented, well-organized, and thoroughly analyzed.	Results are presented but may lack organization or depth of analysis.	Results are unclear or poorly organized, with limited analysis.	Results are absent, unclear, or inadequately analyzed.	
7	Discussion	Insightful interpretation of results, connects to literature, discusses reasons for the findings.	Interpretation of results is present but may lack depth, some connection to literature.	Limited interpretation of results, minimal connection to literature.	Interpretation of results is absent or unclear, no connection to literature	
8	Conclusion	Comprehensive conclusion with discussions on implications supported by findings. Suggests future research.	Conclusion is present with key points somewhat summarized. Discussions on implications somewhat supported by findings. Suggests future research.	Weak conclusion, does not effectively summarize findings or suggest future research. Implications irrelevant to findings.	Conclusion is absent or very weak.	
9	Writing Quality	Excellent writing, free from errors, clear and professional.	Writing is clear but contains some errors or lacks professionalism.	Writing is unclear in parts, contains errors, and lacks professionalism.	Writing is unclear, contains numerous errors, and is unprofessional.	
10	References	Extensive and relevant references, properly formatted.	References are relevant but formatting is inconsistent.	Few references, some may be irrelevant or improperly formatted.	References are absent, irrelevant, or improperly formatted.	
					Total	