FACTORS INFLUENCING PURCHASE INTENTION TOWARDS GREEN COSMETICS IN MALAYSIA

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BY

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LIST OF ABBREVIATIONS

ATT	Attitude
AVE	Average Variance Extraded
B&PC	Beauty and Personal Care
CAGR	Compound Annual Growth Rate
EC	Environmental Concerns
ETPB	Extended Theory of Planned Behavior
HTMT	Heterotrait-Monotrait
PBC	Perceived Behavioral Control
PI	Purchase Intention
PLS-SEM	Partial Least Squares Structural Equation Modeling
SEM	Structural Equation Modeling
SMM	Social Media Marketing
SN	Subjective Norms
TAM	Technology Acceptance Model
TPB	Theory of Planned Behavior
TRA	Theories of Reasoned Action
VIF	Variance Inflation Factor

PREFACE

According to the University Tunku Abdul Rahman's (UTAR) standards, all students pursuing a Bachelor of International Business (Honours) degree must complete the "UKMZ2016 Research Project" as the last year's project. "Factors Influencing Purchase Intention towards Green Cosmetics in Malaysia" is the title of this finalyear project. This study's main goal is to determine the variables influencing Malaysian consumers' intentions to purchase eco-friendly cosmetics. Thus, the relationship between the dependent variable (purchasing intention for green cosmetics in Malaysia) and the independent variables (attitude, subjective norms, perceived behavioral control, environmental concerns, and social media marketing) is examined in this study. From this point forward, I expect that the study project will be able to give a clear and precise knowledge of Malaysian consumers' intention to purchase green cosmetics.

ABSTRACT

This research investigates the factors that influence purchase intention towards green cosmetics in Malaysia, a rapidly growing market with increasing awareness of environmental sustainability. The study utilizes quantitative surveys to comprehensively explore the determinants affecting consumers' inclination to purchase eco-friendly cosmetic products. Drawing upon a theoretical framework grounded in the Theory of Planned Behavior (TPB), the extended Theory of Planned Behavior (ETPB), and the Technology of Acceptance (TAM), the research identifies and analyzes key factors such as attitude, subjective norms, perceived behavioral control, environmental concerns, and social media marketing.

The process of collecting data took place using online platforms, such as WhatsApp, Facebook, Instagram, and Microsoft Teams. The study is to offer useful insights for marketers, policymakers, and stakeholders in the cosmetics industry who want to comprehend and take advantage of the factors influencing customers' purchase intentions in Malaysia's green cosmetics market through data analysis and interpretation.

The findings clearly show that attitude and subjective norms have a major impact on Malaysian consumers' intentions to purchase eco-friendly cosmetics. H1 and H2 were therefore supported. On the other hand, H3, H4, and H5 were disregarded because it was believed that social media marketing, environmental concerns, and behavioral control had no bearing on Malaysian consumers' intentions to purchase green cosmetics. There was a discussion of the implications, limitations, and suggestions for additional research.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This chapter delves into an examination of the elements that impact consumers' purchase intention to buy green cosmetics in Malaysia. The background of the study, the research problem, research objectives, research questions, and research significance.

1.1 Research Background

In the era of rapid economic growth and technological advancement, unsustainable development and consumption patterns have triggered adverse environmental effects, prompting heightened consumer awareness (Pop, Săplăcan, & Alt, 2020). The global demand for green cosmetics has surged as consumers prioritize environmentally friendly choices in personal care products (Kumar, Talwar, Krishnan, Kaur, & Dhir, 2021). This shift is driven by concerns about the potential side effects of conventional products, leading consumers to view natural and organic options as safer alternatives. The 21st century has witnessed a significant increase in global green consumption, compelling cosmetics companies to adopt eco-friendly practices and expand their range of green products (Wang, Ma, & Bai, 2019).

Green cosmetics encompass skincare, hair care, body care, color cosmetics, oral care, and personal hygiene products, utilizing organic and natural ingredients, and

excluding synthetic chemicals from their formulations. Packaged in environmentally friendly or reusable materials, these products align with consumer preferences for natural and sustainable beauty items (Sadiq et al., 2021). In 2022, China led the global natural cosmetics market with nearly 2.5 billion euros in revenue, followed by the United States and Japan. The projected revenue for the natural cosmetics market in Malaysia is \$50 million for 2023, with an expected annual growth rate of 2.53% from 2023 to 2028 (CAGR 2023-2028), reflecting the substantial market presence and growth of natural cosmetics in these countries, with individual earnings per capita estimated at approximately US\$1.46 in 2023 (Statista, 2023).

Social media has played a pivotal role in fostering environmental consciousness and influencing consumer attitudes toward green cosmetics (Mangold et al., 2009). It serves as a vital communication channel in the cosmetics industry, where consumers actively seek information. Numerous studies have explored the impact of social media, especially in cosmetics, on consumers' decisions to adopt green practices. Social media celebrities can shape consumers' perceptions of green cosmetics (Murwaningtyas et al., 2020), while social networks contribute to promoting and sustaining environmentally friendly behavior (Lee, 2008).

Green cosmetics are gaining popularity in the global beauty and personal care market, especially in Malaysia, driven by consumers' concerns for well-being and the environment. It is essential to understand Malaysian customers' purchasing patterns for green cosmetics due to the potential impact on their buying decisions.

1.2 Research Problem

The global beauty industry has undergone significant transformations due to the

widespread impact of COVID-19, presenting challenges that have reshaped various aspects of our lives, including income, product availability, and accessibility (Eger et al., 2021). The pandemic, which confined people to their homes, resulted in a notable increase in individuals' interest in personal skincare and aesthetic trends, particularly in the realm of green skincare and cosmetics (Cho & Chiu, 2021). To support the local economy, consumers are increasingly choosing online retailers that use local, natural ingredients in their cosmetics. Hence, the prevailing beauty trends in 2021 emphasize natural, organic, local, and zero-waste goods (Watson International Marketing, 2021).

The cosmetics market is rapidly expanding globally, with Asia experiencing particularly swift growth. In Asia, there is a notable rise in the use of natural and organic cosmetics, driven by increased consumer awareness of the potential harms associated with inorganic materials in personal care products (Dhanwani et al., 2020; Al Mamun et al., 2018). Modern consumers prioritize environmentally friendly, clean, and sustainable products, actively seeking goods that contribute to environmental protection and reduce waste. Notably, online searches for "plastic-free" cosmetics have surged by +86% in the past six months compared to two years ago (Haleyhastings, 2022). In 2019, Malaysia purchased beauty and personal care goods worth USD 1.2 billion globally, but this figure decreased by 16.67% in 2020. However, the market is expected to rebound, with a projected increase to US\$47.38 million in 2022, indicating a continuous rise of 3.46% (Al Mamun et al., 2023). This data underscores the impact of the pandemic on sales and revenue for natural and sustainable beauty and personal care goods in Malaysia.

Furthermore, Malaysian consumers exhibit a preference for high-quality, natural, and cruelty-free cosmetics imported from the United States, which enjoy a positive reputation in the market (International Trade Administration, 2021). The pandemic has spurred a shift towards sustainable living and altered consumption patterns (Morganti, 2020). Increasing consumer awareness about natural cosmetics, the industry's move towards natural alternatives, and a curiosity about

the functionality of organic products contribute to the rising demand. Consumers are also eager to learn more about products that are organic and natural and how they function (Szőke, 2021). However, consumers, sensitive to exaggerated advertising claims, particularly scrutinize green products (Kumar et al., 2022). Statista data highlights a global trend, with 52% of consumers emphasizing eco-friendly aspects like veganism in their cosmetics selection (Petruzzi, 2022). Given the growing importance of green products and recent developments in Malaysia's green cosmetics procurement, exploring factors influencing consumer decisions is essential.

1.3 Research Objectives

1.3.1 General Objectives

The main goal of this study is to determine the variables affecting Malaysian consumers' purchase intentions for green cosmetics.

1.3.2 Specific Objectives

- 1) To investigate the relationship between attitude and purchase intention towards green cosmetics in Malaysia.
- To investigate the relationship between subjective norms and purchase intention towards green cosmetics in Malaysia.
- To investigate the relationship between perceived behavioral control and purchase intention towards green cosmetics in Malaysia.

- To investigate the relationship between environmental concerns and purchase intention towards green cosmetics in Malaysia.
- 5) To investigate the relationship between social media marketing and purchase intention towards green cosmetics in Malaysia.

1.4 Research Questions

The research questions stated below that need to be explored are:

- 1. How does attitude influence purchase intention towards green cosmetics in Malaysia?
- 2. How does subjective norms influence purchase intention towards green cosmetics in Malaysia?
- 3. How does perceived behavioral control influence purchase intention towards green cosmetics in Malaysia?
- 4. How does environmental concerns influence purchase intention towards green cosmetics in Malaysia?
- 5. How does social media marketing influence purchase intention towards green cosmetics in Malaysia?

1.5 Hypothesis of Study

The hypothesis in this research is shown below:

H1: There is a significant relationship between attitude and purchase intention towards green cosmetics in Malaysia.

H2: There is a significant relationship between subjective norms and purchase intention towards green cosmetics in Malaysia.

H3: There is a significant relationship between perceived behavioral control and purchase intention towards green cosmetics in Malaysia.

H4: There is a significant relationship between environmental concerns and purchase intention towards green cosmetics in Malaysia.

H5: There is a significant relationship between social media marketing and purchase intention towards green cosmetics in Malaysia.

1.6 Research Significance

This study aims to explore factors influencing Malaysian consumers' intentions to purchase green cosmetics, providing insights into the development of the green beauty sector in Malaysia. Business professionals in the beauty and personal care (B&PC) industry can benefit from a deeper understanding of Malaysian consumers' preferences for green cosmetics. The study focuses on five key factors—attitude, subjective norms, perceived behavioral control, environmental concerns, and social media marketing that impact consumers' purchasing intentions.

This study's approach and findings can help businesses understand customer

perspectives on green cosmetics and the factors influencing their purchasing decisions. Marketers can use the insights to develop effective strategies to attract Malaysian consumers to purchase green cosmetics, aligning with the growing importance of sustainability (Kapoor et al., 2019). The study contributes theoretically by integrating the Theory of Planned Behavior (TPB) and the Extended Theory of Planned Behavior (ETPB) with the Technology Acceptance Model (TAM) to enhance the understanding of Malaysian consumers' online intentions to purchase green cosmetics.

1.7 Conclusion

The chapter provides a summary of the study, outlining the problem statement, defining research objectives, questions, and hypotheses, and emphasizing the study's significance. The next chapter will delve into constructing the research model, incorporating a literature review, and relevant theory, and elaborating on the development of hypotheses.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

The literature review explored factors influencing Malaysian consumers' green cosmetics purchase intentions, utilizing the Theory of Planned Behavior (TPB), Extended Theory of Planned Behavior (ETPB), and the Technology Acceptance Model (TAM). It focused on consumer attitudes, subjective norms, perceived behavioral control, environmental concerns, and social media marketing within the theoretical framework. The chapter also outlined the theoretical model, conceptual framework construction, and hypothesis development for the study.

2.1 Underlying Theory

2.1.1 Theory of Planned Behavior and Extended Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is a predictive model for human behavior (Ajzen, 1991). It identifies three key factors influencing behavioral intentions: attitude, subjective norm, and perceived behavioral control. Behavioral intention, the first component, represents motivation for a behavior, with stronger intentions leading to a higher likelihood of performing the behavior. Attitude toward the behavior reflects an individual's favorable or unfavorable view, encompassing both beliefs and evaluations. Subjective norm signifies social pressure influenced by normative beliefs and the motivation to conform. Perceived behavioral control refers to an individual's perception of how easy or difficult it is to carry out the contemplated behavior (Asare, 2020).

The Theory of Planned Behavior (TPB) is widely recognized for predicting social and health behaviors (Rivis et al., 2009). In ecology and consumer behavior, TPB is extensively applied, particularly in studies on environmentally friendly products (Hsu et al., 2017; Shukla, 2019). Backed by strong empirical support, TPB effectively forecasts consumer intentions and behaviors (Hassan et al., 2018; Shukla, 2019). According to Ajzen (1985), behavioral intention, influenced by subjective norms, attitude, and perceived behavioral control, shapes both intended and actual behavior. Attitude reflects beliefs about behavior outcomes, influencing intention (Ajzen and Fishbein, 1973). A positive attitude increases the intention to perform a behavior (Manaktola and Jauhari, 2007). Subjective norm represents social pressures in decision-making (Ajzen and Fishbein, 1973), while perceived behavioral control assesses perceived control over behavior (Ajzen, 1991).

In examining the intentions of Malaysian consumers to buy green cosmetics, this study employs an expanded version of the TPB model known as Extended Planned Behavior (ETPB). This extended model incorporates an additional variable, specifically, environmental concerns.





<u>Adapted from:</u> Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211.

2.1.2 Technology Acceptance Model

The approval of users plays a pivotal role in the successful integration of information technology (IT) or information systems (IS) into individuals' daily routines. In examining customers' intentions to purchase eco-friendly cosmetics, this investigation employed the Technology Acceptance Model (TAM). Davis made a significant contribution to the understanding of IT usage and adoption by introducing the Technology Adoption Model (TAM) in 1989. Davis aimed to comprehend the factors that individuals consider when deciding whether to embrace information technologies. Ultimately, a person's actual behavior is influenced by their behavioral intention, shaped by their attitude and subjective norms, which are in turn motivated by beliefs and other influencing variables.

The Technology Acceptance Model (TAM) evolved from the theories of reasoned action (TRA) and planned behavior (TPB), adapting them for situations with limited control over behavior (Ajzen, 1991). Ajzen's theory identifies three key influencers of behavior: control beliefs, subjective norms, and behavioral beliefs (Park & Han, 2007). To address factors beyond an individual's control, Ajzen introduced "perceived behavioral control" in the Theory of Planned Behavior (TPB), influencing behavioral intentions (Terry, O'Leary, 1995). Davis extended these ideas, introducing TAM rooted in social psychology to predict IT user behaviors (Davis, 1989). TAM emphasizes perceived usefulness and ease of use as crucial determinants of attitude, with other variables indirectly impacting intention and attitude (depicted in Figure 2.2). In essence, TAM highlights the importance of perceived usefulness and ease of use in understanding and predicting IT user behaviors.





<u>Adapted from:</u> Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Quarterly, 13(3), 319–340.

2.2 Green Cosmetics

Green cosmetics, also known as organic and natural cosmetics, are crafted from natural ingredients like fruit extracts, devoid of chemicals, additives, and synthetic blends, aligning with principles of environmental conservation and animal welfare (Shimul et al., 2021). Essentially, these cosmetics are produced without pesticides, artificial chemicals, or animal testing (Prothero & McDonagh, 1992). The category includes eco-friendly creams, cosmetics, and various personal care items, experiencing a rapid global demand surge. The market for organic and natural cosmetics, valued at USD 34.5 billion in 2018, is projected to grow at a compound annual rate of 5.2%, reaching USD 54.5 billion by 2027 (Petruzzi, 2022).

2.3 Importance of Green Cosmetics

As personal care products become integral to daily routines, consumers, especially educated working women, are increasingly mindful of the potential harm associated with cosmetics containing synthetic ingredients (Al Mamun et al., 2018). Young female consumers express a strong preference for cosmetics free of chemicals, driven by a desire to protect their skin and minimize environmental impact (Khan & Salim, 2020). Notably, even those not traditionally inclined towards eco-friendly products may make such purchases in specific situations, highlighting the multifaceted importance of green cosmetics in promoting personal health, environmental sustainability, and ethical considerations through the use of natural and organic ingredients (Munerah et al., 2021).

2.4 Green Cosmetics in Malaysia Industry

In the 21st century, there's a global trend of consumers embracing green products, prompting cosmetic manufacturers to heighten environmental awareness and expand their range of eco-friendly offerings (Pop et al., 2020). Asian consumers, particularly in Malaysia, have shown an increased interest in organic products, contributing to the growth of the green cosmetics industry (Lai & Yue, 2020). Despite limited awareness, recent research by Al-Haddad, Awad, et al. (2020) indicates a rising attention to green cosmetics among Malaysian consumers, especially women. Additionally, the growth of e-commerce, fueled by increased internet accessibility in Malaysia, has led to a surge in online shopping trends (El Khoury et al., 2023).

2.5 Review of Variables

2.5.1 Purchase Intention towards Green Cosmetics in Malaysia

Marketing professionals can enhance their strategy by utilizing consumer behavior, with purchase intention being a key indicator (Kotler and Keller, 2015). According to Ajzen (1991), purchase intention representing a consumer's focus on a specific brand and readiness to make a purchase, is crucial for analyzing and predicting consumer behavior. Garg and Joshi (2018) asserted that purchase intention, delineating customers' focus on a specific brand and their readiness to engage in a purchase, serves as a vital tool for scrutinizing and forecasting consumer behavior. It reflects an individual's contemplation of making a purchase (Ali et al., 2020). Schiffman and Wisenblit (2015) highlight that assessing intention remains the most effective way to predict future consumer behavior. Based on Mirabi et al. (2015), purchase intention is a buyer's inclination to acquire a specific product or service under certain circumstances. Notably, heightened purchase intention aligns with an increased willingness to make a purchase (Dodds et al., 1991). Purchase intention is closely linked to consumer behavior, perceptions, and attitudes, serving as a critical gateway for individuals to evaluate specific products. Therefore, the factors examined in the study—attitude, subjective norms, perceived behavioral control, environmental concerns, and social media marketing have the potential to influence purchase intentions.

2.5.2 Attitude

According to Chen and Deng (2016), attitudes reflect a person's opinion of a product or service and significantly influence their decision to make a purchase. Eagly and Chaiken (2007) describe attitudes as the psychological inclination, positive or negative, toward a specific product or service. These attitudes are typically formed over time and can be resistant to change, but psychological motivations can sway them (Lien and Cao, 2014). Attitudes can evolve as individuals gain new insights and knowledge about the objects they evaluate (Shaouf et al., 2016). Allport (1935) emphasized the vital role of attitudes in shaping predispositions and highlighted a positive correlation with behavior. In the framework by Greaves, Zibarras, and Stride (2013), attitude toward a behavior is an individual's assessment informed by beliefs and assumptions about its positive outcomes (Ajzen, 1991; Ramayah, Lee, & Mohamad, 2010). Cheng and Tung (2014) suggest that people's emotional reactions are influenced by their perception of a behavior, with a positive evaluation leading to a positive intention to engage in that behavior.

2.5.3 Subjective Norms

Subjective norms are shaped by an individual's perception of right or wrong, influenced by the benefits or drawbacks of the behavior. In line with Kim et al. (2013), this study defines subjective norms as the impact of friends, family, and colleagues on a consumer's choice to buy environmentally friendly cosmetics. These norms encompass perceived societal influences and pressures guiding or discouraging specific behaviors (Ajzen, 1991; O'Neal, 2007). Subjective norms reflect individuals' beliefs about how their actions will be judged by reference groups when engaging in a behavior. Frequently employed in decision-making, subjective norms play a role in individuals' likelihood to act based on perceived support from role models (Schepers and Wetzels, 2007). Thus, external influences may significantly shape individuals' decisions regarding behavior engagement (Ajzen, 2015; Arvola et al., 2008).

2.5.4 Perceived Behavioral Control

The Theory of Planned Behavior (TPB) emphasizes perceived behavioral control, representing an individual's assessment of the ease or difficulty associated with performing a specific behavior. According to Ajzen (1991), TPB posits that actual behavior is influenced by both the individual's intentions and their control over the behavior, considering factors like time, money, skills, and others' cooperation. Past experiences and potential obstacles shape the likelihood of engaging in a behavior, making perceived behavioral control crucial in assessing facilitating or hindering elements (Satyapriya et al., 2019). Some studies further break down perceived behavioral control into capacity and autonomy, examining how each aspect impacts intention (Castanier et al., 2013). Confidence in one's capacity to complete a task, termed self-efficacy belief, plays a

pivotal role in the intricate interplay of attitudes, beliefs, behavior, and intentions within the TPB framework (Ajzen, 1991).

2.5.5 Environmental Concerns

As stated by Dunlap and Jones (2002, p. 485), environmental concern reflects an individual's awareness of environmental issues, support for initiatives addressing them, and willingness to actively contribute to their resolution. This aspect of environmental attitudes has gained considerable research attention recently. Consumer environmental concern encompasses both cognitive and emotional perspectives on environmental matters (Kim and Choi, 2005). Sadiq et al. (2020) emphasize the significant impact of consumer environmental concerns on their engagement in pro-environmental actions. Numerous studies by Baldassare & Katz (1992) and SGuin, Pelletier, & Hunsley (1998) highlight that individuals with environmental concerns are more likely to adopt behavioral changes addressing environmental problems. In the context of sustainable consumption, an individual's attitude toward consumption practices that protect the environment can be synonymous with environmental concern (De Canio, Martinelli, & Endrighi, 2021).

2.5.6 Social Media Marketing

In the past two decades, marketing has undergone significant transformations, rendering outdated mass marketing strategies from the 1960s and 1970s (Constantinides, 2014). Social media marketing (SMM) is now favored for its ability to target customers with similar lifestyles (Lee et al., 2018). The influence of social media has made customers more

sophisticated in their product assessment, search, selection, and purchasing strategies (Sun and Wang, 2020). SMM allows businesses to connect and engage with consumers through networking, user interactions, and positive electronic word-of-mouth (eWOM) (Hung et al., 2011; Mo et al., 2018). It has become a significant platform for promoting eco-friendly products, impacting customer intentions and attitudes (Huang, 2016; Zhao et al., 2019). Recognized for its role in indirect engagement and knowledge accumulation, social media affects purchasing intentions and attitudes toward green products (Luo et al., 2020). Sun and Wang (2020) emphasize the role of social media marketing in enhancing consumer understanding of green products.

2.6 Review of Relevant Theoretical Model



<u>Source:</u> Tewari, A., Mathur, S., Srivastava, S., & Gangwar, D. (2022). Examining the role of receptivity to green communication, altruism and openness to change on young consumers' intention to purchase Green Apparel: A multi-analytical approach. *Journal of Retailing and Consumer Services*, *66*, 102938.

The theoretical model shown in Figure 2.3 was developed by Tewari et al. (2022). This model illustrates the linkage among attitude, subjective norms, perceived behavioral control, and purchase intention. The research reveals a positive correlation between attitude, subjective norms, perceived behavioral control, and purchase intention.


<u>Source:</u> Dhir, A., Sadiq, M., Talwar, S., Sakashita, M., & Kaur, P. (2021). Why do retail consumers buy green apparel? A knowledge-attitude-behaviour-context perspective. *Journal of Retailing and Consumer Services*, *59*, 102398.

Figure 2.4 presents the theoretical model formulated by Dhir et al. (2021), delineating the connection between environmental concerns and the behavior of purchasing green apparel. The research indicates a correlation between the act of buying environmentally friendly clothing and possessing environmental concerns.



<u>Source:</u> Nekmahmud, Md., Naz, F., Ramkissoon, H., & Fekete-Farkas, M. (2022). Transforming consumers' intention to purchase green products: Role of Social Media. *Technological Forecasting and Social Change*, *185*, 122067.

The theoretical model depicted in Figure 2.5 was formulated by Nekmahmud et al. (2022), delineating the relationship between social media marketing and the intention to engage in environmentally friendly purchases. As per the findings, a correlation exists between social media marketing and the intention to make environmentally conscious purchases.

2.7 Conceptual Framework

The framework in Figure 2.6 portrays the key independent and dependent variables in this study. The independent variables encompass attitude, subjective norms, perceived behavioral control, environmental concerns, and social media marketing, while the dependent variable is the purchase intention towards green cosmetics in Malaysia.



Figure 2.6: Conceptual Framework

Source: Developed for the research

This study aims to assess the factors influencing the purchase intentions of Malaysian consumers regarding green cosmetics. Examining five independent variables including attitude, subjective norms, perceived behavioral control, environmental concerns, and social media marketing along with a dependent variable, namely, purchase intention towards green cosmetics, this research will be conducted based on the theoretical framework discussed in the preceding section.

2.8 Hypothesis Development

2.8.1 Attitude

By prior research findings, there is a consistently observed positive correlation between individuals' attitudes and their inclination to engage in environmentally conscious purchasing decisions (Choi and Johnson, 2019; Li et al., 2021; Paul et al., 2016; Yadav and Pathak, 2017; Zahan et al., 2020; Zaremohzzabieh et al., 2021). Furthermore, research has consistently indicated that one's attitude serves as a robust predictor of their willingness to purchase cosmetics devoid of parabens (Hansen et al., 2012). According to the Information-Motivation-Behavioral Skills (IMB) model, consumers' motivations, including their attitudes toward engaging in a specific behavior, exert a significant influence on their behavioral intentions. In this context, the study constructs the following hypothesis:

H1: There is a positive relationship between attitude and purchase intention towards green cosmetics in Malaysia.

2.8.2 Subjective Norms

Social influence has been identified as a factor that can alter people's consumption patterns (Joshi and Srivastava, 2020). Subjective norms in the context of eco-friendly cosmetics refer to the perceived social pressure from influential people in one's life that prompts the purchase of eco-friendly cosmetics. According to Eze & Ndubisi (2013), subjective norms exhibit a positive association with both the intention and actual acquisition of green products or services. The positive impact of subjective norms on

a desire to purchase eco-friendly products has also been demonstrated when it comes to personal care products (Suphasomboon & Vassanadumrongdee, 2022). Furthermore, research has illustrated that subjective norms influence the inclination of non-environmentally conscious consumers to buy green personal care products (Munerah et al., 2021). Therefore, the subsequent hypothesis is proposed:

H2: There is a positive relationship between subjective norms and purchase intention towards green cosmetics in Malaysia.

2.8.3 Perceived Behavioral Control

According to studies by McCarty and Shrum (2001); and Barbarossa and De Pelsmacker (2016), the perception of inconvenience hurts a person's propensity to purchase environmentally friendly products. However, individuals typically consider their prior experiences and potential obstacles before making specific decisions. Consistent findings from prior research have affirmed the noteworthy and positive influence of perceived behavioral control (PBC) on consumers' intentions to engage in green purchases (GPI) (Hsu et al., 2017; Paul et al., 2016; Chen and Tung, 2014). As consumers grow more conscious of the detrimental effects linked to non-environmentally friendly products, there is a rising adoption of proenvironmental practices. In light of this, the study formulates the subsequent hypothesis:

H3: There is a positive relationship between perceived behavioral control and purchase intention towards green cosmetics in Malaysia.

2.8.4 Environmental Concerns

Organic cosmetics are crafted through processes that exclude animal testing, harmful chemicals, and synthetic compounds, making them environmentally friendly (Prothero and McDonagh, 1992). Elevated environmental consciousness, driven by goals of environmental protection, serves as a crucial precursor to the decision to purchase organic products (Dembkowski, 1998; Smith & Paladino, 2010). Drawing from the preceding works of Kim and Chung (2011), Smith and Paladino (2010), and Yadav and Pathak (2017), it has been verified that individuals possessing a robust environmental awareness are more inclined to embrace green products readily. Subsequently, Ghazali (2017) asserted that attitudes and repurchasing intentions about organic personal care products are significantly influenced by environmental concerns. Henceforth, the following is the hypothesis put forth:

H4: There is a positive relationship between environmental concerns and purchase intention towards green cosmetics in Malaysia.

2.8.5 Social Media Marketing

Sun and Wang's (2020) research indicates that social media advertising helps consumers become more knowledgeable about environmentally friendly items. Likewise, various studies have indicated that social media marketing (SMM) has a positive influence on both product knowledge and social network (SN) engagement (Sun and Wang, 2020; Schuitema and De Groot, 2015; Mangold and Faulds, 2009). Additionally, it has been established that social media marketing exerts a substantial and favorable impact on consumers' intentions to actively participate in environmentally friendly behaviors (Hynes and Wilson, 2016). Consequently, the following assertion is made:

H5: There is a positive relationship between social media marketing and purchase intention towards green cosmetics in Malaysia.

2.9 Conclusion

This chapter provides theoretical foundations, explores independent and dependent variables, presents a conceptual framework, reviews relevant theoretical models, and develops hypotheses. The subsequent chapter will delve into the detailed research methodology.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter outlines the preparation for a study, covering research design, sample design, data collection techniques, research instrument, construct measurement, data processing, and recommended data analysis tools to ensure reliable and accurate outcomes aligned with the study's objectives.

3.1 Research Design

According to Cooper & Schindler (2014), research design serves as a framework for obtaining, measuring, and analyzing data. It provides guidelines for data collection and analysis, helping measure independent variables such as attitude, subjective norms, perceived behavioral control, environmental concerns, and social media marketing, and studying their relationships with the dependent variable, purchase intentions. This study adopts quantitative research.

3.1.1 Quantitative Research

Quantitative research plays a crucial role in research design, focusing on numerical data collection and analysis (Goertzen, 2017). In this study on customers' purchasing intentions for green cosmetics in Malaysia, quantitative research was utilized to effectively identify the significant impact of independent variables. The findings are presented in tabular form.

3.1.2 Descriptive Research

Salaria (2012) asserts that descriptive research takes into account both the features of the entire sample and the characteristics of the individual. The data-gathering strategy is made easier by descriptive research's ability to provide a clear image of a phenomenon (Saunders, Lewis, & Thornhill, 2009). In the context of this study, descriptive research was used to comprehensively describe the demographics of Malaysia.

3.2 Sampling Design

As per Saunders, Lewis, and Thornhill (2009), sampling involves the selection of a sample from a complete population for a study. By identifying the measurement outcomes of specific groups within the population design tied to the applicable structure, sampling also produces generalized findings (Zikmund et al., 2010). During the sampling design phase, the researcher will define the target population, select sampling techniques, and identify the sampling location.

3.2.1 Target Population

The target audience for this study comprised individuals residing in

Malaysia who were at least 18 years old. Chan (2001) argues that 18 and older is the best consumer age for environmental research since children and teenagers have difficulty comprehending the topic due to problems with decision-making. Therefore, this group is suitable for the research since they could provide detailed information about their intentions to purchase green cosmetics.

3.2.2 Sampling Techniques

According to Taherdoost (2016), the act of selecting a subset of the entire population or frame of sampling is known as sampling. The basic objective of sampling is to create representative samples, which show that the characteristics of the largest group in the overall population are accurately reflected in samples from minor groups. Probability sampling as well as non-probability sampling are two popular sampling techniques. The research adopted a non-probability sampling technique referred to as snowball sampling. The choice of snowball sampling was based on its effectiveness in generating a sample and gathering sufficient information for the study (Sharma, 2017). This sampling method is commonly employed in populations that are concealed and pose challenges for researchers in terms of accessibility.

3.2.3 Sampling Size

As per Memon et al. (2020), the sample size refers to a subset of the population that provides sufficient information for concluding. Roscoe

(1975) suggests an appropriate sample size to be between 30 and 500 participants. Recent methodologies advocate using power analysis for determining the right sample size (Hair et al., 2018; Kline, 2016; Ringle et al., 2018). Power analysis involves considering the model component with the highest number of predictors and requires information on power, effect size, and significance level (Hair et al., 2014; Roldán & Sánchez-Franco, 2012). G*Power (Faul et al., 2009; Faul et al., 2007) is a commonly preferred tool for estimating sample size in business and social science research (Hair et al., 2014; Hair et al., 2017). In this study, 230 respondents completed the questionnaire, with 30 questionnaires distributed for pilot testing.

3.3 Data Collection Method

Based on Sekaran (2012), the critical element of research design is the methodology employed for data collection. In the context of this study, primary data served as the source of information. Primary data were used in this study to advance with data entry and analysis.

3.3.1 Primary Data

According to Taherdoost (2021), primary data refers to real-time information, which is defined as the first-hand knowledge acquired by researchers themselves. Primary data possess higher degrees of reliability, objectivity, dependability, and originality than secondary data resources. As a result, this study used electronic-based questionnaires that saved time and money to collect primary data. Through preliminary data collection,

the researcher was able to identify factors that influence Malaysian consumers' intention to purchase green cosmetics.

3.4 Research Instrument

A questionnaire comprises several questions that have been tested to produce accurate results (Collis and Hussey, 2013). To gather primary information on the variables influencing Malaysian consumers' purchasing intentions for green cosmetics, electronic-based questionnaires were distributed to respondents in this study.

3.4.1 Questionnaire Design

The questionnaire's design is crucial for research accuracy standards (Zikmund et al., 2013). This investigation utilized a self-administered questionnaire with three main sections in English. Section A covers the demographic profile, Section B presents general information, and Section C includes both dependent and independent variables. Section A of the survey collected demographic information, including gender, age, education, employment, and income. Section B comprised questions about personal care product usage, types of personal care products used, knowledge about green cosmetics, motivations for purchasing, and hesitations. Qualifying questions ensured participants met the study criteria. Section C statements related to the study's variables, using a 5-point Likert scale. This section explored the impact of independent factors on consumers' intentions to buy green cosmetics.

3.4.2 Pilot Test

A pilot study, often called "feasibility" research, evaluates the potential success of a future-focused project before launching extensive quantitative research. It assesses project duration, costs, resources, risks, and outputs. The pilot test identifies issues in questionnaire structure, grammar, and content, allowing for improvements before a larger research project. It aids in determining the appropriate sample size, financial allocation, and research design enhancements (Julia, 2022). Additionally, a pilot test assessed the internal consistency of the questionnaire instruments (Chua, 2012). For pilot testing, 30 questionnaires were distributed, all of which were considered valid. The internal consistency of survey items was evaluated using a Cronbach's alpha (α) test, with a recommended dependability threshold of 0.60 or higher according to Taherdoost (2018). The reliability assessment results are presented in Table 3.1.

Constructs	Items	Cronbach's Alpha
Purchase Intention	5	0.799
Attitude	5	0.774
Subjective Norms	5	0.757
Perceived Behavioral Control	5	0.829
Environmental Concerns	5	0.781
Social Media Marketing	5	0.928

Table 3.1: Result of Reliability Analysis

Source: Developed for the research

3.5 Construct Measurement

In this study, construct measurement pertains to the particular scale employed for measurement. These scale measurements are categorized based on the relationships formed among constructs with varying scale values.

3.5.1 Scale Measurement

Scale measurement serves as a means to assess the validity and reliability of statistical analysis. In this study, a questionnaire with three sections (Section A, Section B, and Section C) was employed, encompassing nominal, ordinal, and interval scales. Within the self-administered questionnaire, items were included to investigate the study's hypotheses. Therefore, these scale measurements enabled the researcher to assess the consistency of each item.

3.5.1.1 Nominal Scale

According to Scales of Measurement (2023), the nominal scale represents labels or tags that are often used to categorize or identify goods, making it the most basic type of measurement. It also includes qualitative study data in addition to non-numerical characteristics that cannot be quantified. Thus, the variables of nominal data were gender and employment status. Figure 3.1: Example of Nominal Scale

Gender

 Male
 Female

Source: Developed for the research

3.5.1.2 Ordinal Scale

Chua (2012) proposes a rating system for data displayed in ordinal magnitude order on a scale. Hence, an ordinal scale was utilized in this study for conducting a questionnaire survey. Age, highest education attainment, and income level are among the many of the demographic details found in Section A.



5. Incom	e Level
0	Below RM 1000
0	RM 1001 - RM 2000
0	RM 2001 - RM 3000
0	RM 3001 - RM 4000
0	Above RM 4000

Source: Developed for the research

3.5.1.3 Interval Scale

The idea of interval equality is included in an interval scale (Saunders, Lewis, & Thornhill, 2009). Section C of the study employed a five-point Likert scale, ranging from 1 to 5, to gauge various factors. These factors, including purchase intention, attitude, subjective norms, perceived behavioral control, environmental concerns, and social media marketing, were all assessed using the items presented in Section C.

	Purchase Intention					
No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I am likely to consider purchasing green cosmetics products in the future.	1	2	3	4	5
2.	I would try out a new brand's line of green cosmetics products if it was introduced to the market.		2	3	4	5
3.	I am willing to pay a higher price for green cosmetics products compared to conventional products.		2	3	4	5
4.	I believe that green cosmetics products are better for the environment and my overall health.	1	2	3	4	5
5.	I consider the opinions of friends, family, or influencers important when deciding whether to purchase green cosmetics products.	1	2	3	4	5

Figure 3.3: E	xample of	Interval Scale
I Iguite Diot E	manipie oi	meer var beare

Source: Developed for the research

3.5.2 Origin of Construct

Questions created internally are present in sections A and B of the questionnaire. Meanwhile, the measuring items for the constructs in section C were modified and sourced from several prior research studies. Appendix B shows each of the constructs, example measurement items, and sources.

3.6 Data Processing

3.6.1 Data Checking

According to Hassan (2022), Data checking involves ensuring that entered data is accurate, complete, and consistent with the source information. In this study, immediate verification of each questionnaire was conducted to ensure completeness and identify missing values. Google Forms, with its mandatory response feature, helped prevent respondents from overlooking questions. The practical data-checking approach assessed the completeness of targeted respondents' questionnaire responses.

3.6.2 Data Editing

As per Zikmund et al. (2013), data editing involves reviewing data for consistency, omissions, and clarity. This stage commences after a thorough evaluation and completion of data collection during the pilot test. Addressing omissions by specific respondents and enhancing question

clarity and consistency are measures that contribute to a smoother data editing process (Data Editing in Research, 2019).

3.6.3 Data Coding

Unprocessed Google Forms data were moved to Excel sheets for coding after the information was gathered. For instance, Gender was assigned the code 1 for "male" and 2 for "female." Section C utilized a 5-point Likert scale, with responses coded as follows: "strongly disagree" = 1, "disagree" = 2, "neutral" = 3, "agree" = 4, and "strongly agree" = 5.

3.6.4 Data Cleaning

According to Kantarci (2018), data cleaning involves updating or removing inaccurate, poorly formatted, duplicated, or insufficient data from a dataset. It ensures accuracy, completeness, and timeliness, contributing to high-quality data. Efficient data cleaning minimizes negative effects on study conclusions while enhancing overall data quality.

3.7 Data Analysis

The study assesses hypotheses using data to determine acceptance or rejection, following Sekaran & Bougie's approach (2016). Data analysis involves logical and statistical procedures to present, condense, and evaluate acquired data (Jandagh &

Mantin, 2010). The questionnaire data in this study underwent analysis, combining descriptive, inferential, and reliability analyses. SmartPLS 4.0 is the primary software employed for subsequent data analysis.

3.7.1 Descriptive Analysis

As per Saunders, Lewis, and Thornhill (2012), descriptive analysis condenses extensive raw data into a manageable format. It is considered the foundational form of data analysis (Zikmund et al., 2013). It is a statistical strategy that presents collected data concisely for better comprehension (Aldrich, 2019). In this study, descriptive analysis was used to depict respondent tendencies regarding their demographic profiles.

3.7.2 Inferential Analysis

Based on Saunders, Lewis, and Thornhill (2009), inferential analysis is an instrument for determining the degree to which a hypothesis is supported. Therefore, using the data provided by the samples, inferential analysis aids in drawing specific inferences about a population (Burns & Bush, 2006). Based on Schober, Boer, & Schwarte (2018) claim that they have a close computational link despite having different objectives and underlying presumptions.

3.7.3 Measurement Model

Bollen (2001) defines measurement models as frameworks connecting latent variables with their indicators, either implicitly or explicitly. The primary question is whether latent variables affect indicators (effect indicators) or if indicators (causal indicators) affect latent variables. This study applied validity and reliability tests accordingly.

3.7.3.1 Reliability Test

Zikmund (2003) emphasizes that reliability is determined by measurement accuracy and internal consistency. Pallant (2013) recommends using Cronbach's alpha coefficient for assessing internal consistency. This test helps identify data-gathering issues and ensures the study meets reliability standards. Nunally (1978) guideline suggests a reliable scale has a value of 0.70 or above, with 0.90 considered outstanding (Hair et al., 2023). In this study, all constructs exhibit Cronbach's alpha coefficients exceeding 0.700, ensuring reliability (Hair et al., 2010). Hair et al.'s (2014) findings suggest substantial reliability when composite reliability (CR) exceeds the 0.70 threshold. This study employed Cronbach's alpha for dataset reliability and CR for internal consistency assessment.

	-
Alpha Coefficient Range	Strength of Association
> 0.9	Excellent
0.8 - 0.9	Very Good
0.7 - 0.8	Good
0.6 - 0.7	Moderate
< 0.6	Poor

Table 3.2: Rule of Thumb on Cronbach's Alpha Coefficient

Source: Hair, J. F., Page, M., & Brunsveld, N. (2023). *Essentials of business research methods*. Routledge.

3.7.3.2 Validity Test

As defined by Buntins et al. (2017), validity reflects the accuracy of measuring the intended target. Convergent validity is achieved when each measurement item shows a significant t-value for its latent construct, typically with a p-value below the 0.05 alpha threshold (Gefen & Straub, 2005). The heterotrait-monotrait ratio of correlations (HTMT) assesses discriminant validity in SEM, with a score below 0.90 indicating established discriminant validity between reflective notions (Henseler et al., 2014). The commonly used average variance extracted (AVE) contrasts construct variance with measurement error (dos Santos & Cirillo, 2021), with Fornell and Larcker (1981) suggesting an AVE not less than 0.5 for convergent validity, indicating the latent construct accounts for at least 50% of the indicator's variance.

3.7.4 Structural Model

In the PLS method, the subsequent step involves using the structural model to assess hypotheses. The structural model represents a network of nodes and connecting links (Lendaris, 1980). Following Hoyle (2011) and Kline (2023), the structural model evaluates theoretical relationships through path analysis.

3.7.4.1 Collinearity Test

Collinearity occurs when multiple predictor variables strongly correlate with each other (Wilcox, 2022). Multicollinearity in regression analysis is measured using the Variance Inflation Factor (VIF). Typically, a VIF exceeding 4 or a tolerance below 0.25 may suggest multicollinearity, requiring further investigation. Significant multicollinearity, necessitating correction, is indicated by a VIF surpassing 10 or a tolerance below 0.1 (CFI Team, 2022).

3.7.4.2 Path Coefficients

Analyzing path coefficient values helps determine the strength of association between two latent variables. Evaluation involves considering coefficients' path, algebraic signs, scale, and significance to assess the correlation. For a specific influence in the model, path coefficients should exceed 0.100 with a significance level higher than 0.05 (Huber et al., 2007).

3.7.4.3 Coefficient of Determination (R²)

The R^2 value indicates the portion of variance in dependent variables attributed to independent variables. Assessing the coefficient of determination (R^2) for each internal latent variable is crucial in evaluating the PLS-SEM structural model. R^2 measures the proximity of explained variation to overall variance in a latent variable. Nitzl & Chin (2017) categorize R^2 values approximately equal to or greater than 0.67 as significant, around 0.333 as average, and 0.19 or lower as weak.

3.7.4.4 Effect Size (*f*²)

Effect size measures the strength of the association between two variables, with f^2 representing the percentage of the internal construct accounted for by the moderator construct (Cohen, 1988). An f^2 effect value of 0.02 indicates a minor effect, 0.15 suggests a medium-sized effect, and 0.35 signifies a substantial effect.

3.7.4.5 Model's Predictive Relevance (Q²)

The Q-square metric assesses the predictive significance of a model (a score > 0 is positive). A Q-square greater than 0 indicates predictive relevance, signifying accurate reconstruction of values in the model.

3.8 Conclusion

In summary, this study is categorized as quantitative descriptive research, covering methodology, research and sampling plans, data collection methods, and analysis tools. The next chapter will present and illustrate the results of the statistical evaluation.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter examines the results of statistical data analysis conducted with SmartPLS 4.0. It offers an overview of demographic profiles and general information, delving into descriptive, reliable, and inferential analyses in detail.

4.1 Descriptive Analysis

4.1.1 Respondent Demographic Profile

Demographic Profile	Details	Frequency	Percentage (%)
	Male	79	46.3
Gender	Female	121	53.7
	Below 24 years old	118	59
Age Group	25 - 34 years old	47	23
	35-44 years old	24	13.3
	45 - 54 years old	7	3
	Above 55 years old	5	1.7
	Secondary	22	10
Highest Education	Pre-University / Diploma	40	23.3
Attainment	Bachelor's Degree	118	59.7
	Master's Degree / PhD Degree	12	6

Table 4.1: Summarized of Respondents' Demographic Profile

	Professional Certificate		
	(ACCA, PMP, CFA, etc.)	8	4
	Student	86	43
	Employed	62	32.3
Employment Status	Self-employed	26	13
	Part-timer	20	10
	Unemployed	6	1.7
	Below RM1000	90	45
	RM 1001 – RM 2000	15	7
Income Level	RM 2001 – RM 3000	46	18.3
	RM 3001 - RM 4000	32	16
	Above RM 4000	17	13.7

Source: Developed for the research

4.1.1.1 Gender





Source: Developed for the research

According to Figure 4.1, the survey results indicate a predominance of female respondents, accounting for 121 respondents (53.70%), while male participants constituted 79 respondents (46.30%) within the total sample size.





Source: Developed for the research

As shown in Figure 4.2, most participants (59%) were below 24 years old. The second-largest group (23%) fell within the 25-34 age range. The 35-44 age category constituted 13.3%, followed by the 45-54 age group at 3%. Respondents aged above 55 years had the lowest survey response rate at 1.7%.





Figure 4.3: Highest Education Attainment

Source: Developed for the research

Based on Figure 4.3, the study reveals that most participants (59.70%) had a bachelor's degree. The second-largest group (23.30%) had pre-university or diploma qualifications. Those with a secondary education background accounted for 10%, while respondents with master's or PhD degrees constituted 6%, and individuals with professional certificates were at 4%.

4.1.1.4 Employment Status



Figure 4.4: Employment Status

Source: Developed for the research

In Figure 4.4, 43% of participants identified as students, while employed individuals constituted the second-largest category at 32.3%. Self-employed individuals made up 13%, those engaged in part-time work were at 10%, and 1.7% reported being unemployed.





Source: Developed for the research

In Figure 4.5, the distribution of participants' monthly income levels shows that 45% fell below RM 1000. The second-highest income bracket, RM 2001-RM 3000, accounted for 18.3%. The third-highest income level, RM 3001-RM 4000, was at 16%, followed by income levels above RM 4000 at 13.7%, and the RM 1001-RM 2000 range at 7%.

4.1.2 General Information

General Information	Details	Frequency	Percentage (%)
	Daily	117	58
Frequency of Using	Several times a week	22	10.3
Personal Care Products	Occasionally	32	16
	Rarely	24	12
	Never	5	3.7

Table 4.2: Frequency of Using Personal Care Products by Respondents

Source: Developed for the research



Figure 4.6: Frequency of Using Personal Care Products

Source: Developed for the research

In Figure 4.6, the frequency of personal care product usage among respondents is depicted. The majority, 58%, reported daily use. The second-highest group, constituting 16%, used personal care products occasionally. Respondents who rarely used such products accounted for 12%, while those who used them several times a week represented 10.3%, and those who never used them comprised 3.7%.

General Information	Details	Frequency	Percentage (%)
	Skincare (e.g., moisturizers,		
	cleansers)	180	72.3
Frequently Used	Makeup (e.g., foundation,		
Types of Personal Care Products	lipstick)	125	41.7
	Haircare (e.g., shampoo,		
	conditioner)	167	82.3
	Fragrances (e.g., perfumes,		
	colognes)	132	44
	Other	1	0.3

Table 4.3: Frequently Used Types of Personal Care Products

Source: Developed for the research



Figure 4.7: Frequently Used Types of Personal Care Products

Source: Developed for the research

In Figure 4.7, the types of personal care products regularly used by respondents are depicted. Haircare products held the top position at 82.3%,

followed by skincare products at 72.3%. Fragrances were the third most used category at 44%, followed by makeup at 41.7%, and other cosmetic products at 0.3%.

General Information	Details	Frequency	Percentage (%)
Awareness of Green	Yes	156	78
Cosmetics	No	44	22

Source: Developed for the research



Figure 4.8: Awareness of Green Cosmetics in Malaysia

Source: Developed for the research

In Figure 4.8, a pie chart illustrates the awareness of respondents regarding green cosmetics in Malaysia. The findings reveal that 78% of participants reported being aware of green cosmetics, while the remaining 22% stated they were not familiar with green cosmetics.

General			Percentage
Information	Details	Frequency	(%)
	Environmental concerns	184	75.7
Factors to Purchase	Health and safety		
Green Cosmetics Products	considerations	190	78.2
	Cruelty-free and ethical		
	practices	99	40.7
	Support for sustainable		
	practices	97	39.9

Table 4.5: Factors to Purchase Green Cosmetics Products

Source: Developed for the research



Figure 4.9: Factors to Purchase Green Cosmetics Products

Source: Developed for the research

In Figure 4.9, factors influencing respondents' decisions to purchase green cosmetic products are presented. The largest segment, 78.20% of respondents, indicated buying green cosmetics primarily due to health and safety considerations. The second-largest group, at 75.70%, reported purchasing green cosmetics out of concern for the environment. The third-

largest segment, accounting for 40.70%, mentioned choosing green cosmetics based on the importance of cruelty-free and ethical practices. The remaining respondents, totaling 39.9%, stated that they purchase green cosmetics to support sustainable practices.

General			Percentage
Information	Details	Frequency	(%)
Reasons for Hesitate To Purchase Green Cosmetics Products	Lack of availability	178	59.3
	Higher cost	158	52.7
	Doubts about effectiveness	92	30.7
	Lack of information	159	53

Table 4.6: Reason for Hesitate to Purchase Green Cosmetics Products

Source: Developed for the research



Figure 4.10: Reasons for Hesitate to Purchase Green Cosmetics Products

Source: Developed for the research

Figure 4.10 outlines the reasons behind respondents' hesitancy to purchase green cosmetic products. The majority, 59.3% of respondents, refrained

from buying green cosmetics due to perceived unavailability. The secondlargest group, representing 53%, cited a lack of information as their reason for not purchasing green cosmetics. The third-largest segment, at 52.70%, indicated that the higher cost deterred them from buying green cosmetics. The remaining respondents, totaling 30.70%, attributed their lack of purchasing experience with green cosmetics to doubts about its effectiveness.

4.2 Inferential Analysis

4.2.1 Measurement Model



Adapted from: PLS-SEM 4.0

The measurement model assessment involved evaluations of internal consistency reliability, indicator reliability, convergent validity, and discriminant validity. Figure 4.1 visually illustrates the configuration of the measurement model, showcasing relationships among independent variables and the dependent variable.
		Cronbach's	Composite
Constructs	Items	Alpha	Reliability
Purchase Intention	5	0.886	0.917
Attitude	5	0.938	0.953
Subjective Norms	5	0.889	0.907
Perceived Behavioral			
Control	5	0.901	0.914
Environmental Concerns	5	0.851	0.889
Social Media Marketing	5	0.807	0.856

4.2.2 Internal Consistency and Reliability

Table 4.7: Reliability Analysis of Actual Survey

Source: Developed for the research

Reliability analysis in Table 4.7 shows that each construct has both Cronbach's α and composite reliability values exceeding the established threshold of 0.70, indicating satisfactory internal reliability consistency across all factors (Hair Jr. et al., 2021). Attitude has the highest α value of 0.938, followed by perceived behavioral control at 0.901. Sequentially, subjective norms exhibit a value of 0.889, purchase intention at 0.886, environmental concerns at 0.851, and social media marketing at 0.807.

4.2.3 Convergent Validity

		Average Variance
Constructs	Items	Extracted (AVE)
Purchase Intention	5	0.69
Attitude	5	0.625
Subjective Norms	5	0.664
Perceived Behavioral		
Control	5	0.682
Environmental Concerns	5	0.625
Social Media Marketing	5	0.547

Table 4.8: Average Variance Extracted (AVE)

Source: Developed for the research

Table 4.8 clearly illustrates that all AVE values exceed 0.5, indicating that all measured variables meet the AVE criterion and demonstrate good convergent validity.

Variable	1	2	3	4	5	6
Attitude						
Environmental						
Concerns	0.258					
Perceived						
Behavioral Control	0.211	0.779				
Purchase Intention	0.822	0.129	0.064			
Social Media						
Marketing	0.114	0.196	0.257	0.154		
Subjective Norms	0.570	0.730	0.639	0.496	0.077	

4.2.4 Discriminant Validity Assessment

Table 4.9: Results of Heterotrait-Monotrait Ratio (HTMT)

Source: Developed for the research

As per Hair et al. (2017), the HTMT criterion assesses discriminant validity in PLS-SEM, where the confidence interval of the HTMT statistic for all construct combinations should not exceed 1. The variables in this study exhibit an HTMT ratio below 1, indicating a positive correlation among them.

4.2.5 Outer Loadings

	AT	EC	PBC	PI	SMM	SN
AT1		EC	PDC	r1	SIVIIVI	DIN
	0.878					
AT2	0.880					
AT3	0.908					
AT4	0.898					
AT5	0.909					
EC1		0.825				
EC2		0.905				
EC3		0.845				
EC4		0.820				
EC5		0.487				
PBC1			0.784			
PBC2			0.739			
PBC3			0.907			
PBC4			0.807			
PBC5			0.881			
PI1				0.866		
PI2				0.865		
PI3				0.820		
PI4				0.866		
PI5				0.728		
SMM1					0.854	
SMM2					0.686	
SMM3					0.569	
SMM4					0.738	
SMM5					0.817	
SN1					0.017	0.876
SN1 SN2						0.899
SN2 SN3						0.849
SN3 SN4						0.729
SN4 SN5						0.729
SIND						0.702

Table 4.10: Outer Loadings

Source: Developed for the research

Fornell and Larcker (1981) suggest that for each item to be considered extremely satisfactory, outside loading values should be greater than 0.70. In this study, all items, except EC5, SMM2, and SMM3, meet the minimum requirement. SMM2 is just below the threshold at 0.686, while

EC5 with 0.487 and SMM3 with 0.569 do not meet the specified criterion. However, Taylor and Geldenhuys (2019) argue that outer loadings exceeding 0.5 are deemed acceptable.

4.3 Structural Model Assessment

The evaluation of the structural model, following the procedure outlined by Hair Jr., Hult, Ringle, Sarstedt, Danks, and Ray (2021), focused on the significance and relevance of path coefficients. This included factors such as collinearity (evaluated via the Variance Inflation Factor or VIF), the coefficient of determination (R^2 value), and the effect size (f^2 value) within the study.

4.3.1 Collinearity Test (VIF value)

	VIF value
AT -> PI	1.623
EC -> PI	1.919
PBC -> PI	1.771
SMM -> PI	1.059
SN -> PI	2.322

Table 4.11: Collinearity Test

Source: Developed for the research

As per Hair Jr. et al. (2021), the Variance Inflation Factor (VIF) in regression analysis helps identify multicollinearity, with values exceeding

5 indicating a significant level of collinearity. In this study, all VIF values are below 5, suggesting no significant issues with collinearity.

4.3.2 Coefficient of Determination (R-square value)

	R-square	R-square adjusted
PI	0.602	0.592

Table 4.12: Coefficient of Determination

Source: Developed for the research

The coefficient of determination (R-square) is a key measure of predictive capability, ranging from 0 to 1 with a higher value indicating greater accuracy (Sarstedt, Ringle, & Hair, 2017). Ozili (2022) suggests an R-squared value between 0.50 and 0.99 is satisfactory in social science research. In this study, the R-squared value of 0.602 indicates a noteworthy level of predictive accuracy.

<u>1 able 4.13: Effect Size</u>			
	f-square		
AT -> PI	0.655		
EC -> PI	0.007		
PBC -> PI	0.028		
SMM -> PI	0.018		
SN -> PI	0.058		

4.3.3 Effect Size (F-square)

Table 4.13: Effect Size

Source: Developed for the research

The effect size, represented by F-square, delineates the impact of the specified exogenous structure on the endogenous structure. According to Cohen (1988), values of 0.02, 0.15, and 0.35 align with small, medium, and large effects, respectively. EC and SMM have effect sizes smaller than 0.02, indicating insignificant effects. PBC and SN show small effects on PI, while AT reveals a substantial effect on the purchase intention of green cosmetics.

4.3.4 Path Coefficient



Figure 4.12: Structural Model

Adapted from: PLS-SEM 4.0

PLS-SEM was used in this study to examine linkages within the structural model. To enhance reliability, bootstrapping with a one-tail test and 5000 bootstrap samples was employed, revealing statistically significant outcomes for the model.

		Beta	Standard			
		Value	Deviation			
Hypothesis	Relationship	(β)	(STDEV)	T statistics	P values	Decision
H1	AT -> PI	0.650	0.057	11.420	0.000	Supported
H2	SN -> PI	0.232	0.078	2.967	0.003	Supported
						Not
Н3	PBC -> PI	-0.140	0.101	1.384	0.166	Supported
						Not
H4	EC -> PI	-0.074	0.085	0.876	0.381	Supported
						Not
H5	SMM -> PI	0.086	0.061	1.423	0.155	Supported

Table 4.14: Hypothesis Testing

Source: Developed for the research

Table 4.14 presents outcomes and supports H1 and H2, revealing positive influences of attitude (β =0.650, p<0.001) and subjective norms (β =0.232, p<0.05) on purchase intention. H3, H4, and H5 are not substantiated, indicating no positive impact of perceived behavioral control, environmental concerns, and social media marketing on purchase intention.

4.4 Conclusion

Chapter 4 summarizes respondent demographics and uses PLS-SEM for inferential analyses, assessing internal consistency, reliability, convergent validity, and discriminant validity. The chapter explores the structural model for collinearity, R-square, and F-square, employing path coefficients to understand dependencies between variables.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATIONS

5.0 Introduction

This chapter provides a brief summary of the results and findings discussed in the previous chapter. It then delves into the implications of the study, acknowledges its limitations, proposes recommendations for future research, and concludes the overall discussion.

5.1 Discussion of Major Findings

In the previous chapter, various tests were conducted to collect data from the targeted respondents. The reliability test indicates that all independent and dependent variables exhibit reliability, with "Attitude" achieving the highest score at 0.938, followed by "Perceived Behavioral Control" at 0.901. "Subjective Norms" demonstrate reliability with a score of 0.889, and the dependent variable, "Purchase Intention," exhibits a reliability score of 0.886. Additionally, "Environmental Concerns" and "Social Media Marketing" register reliability scores of 0.851 and 0.807, respectively. Hypothesis testing was conducted to identify the positive impacts of independent factors on the dependent variable, and the discussion below provides a summary of the findings.

H1: There is a significant relationship between attitude and purchase intention towards green cosmetics in Malaysia.

The initial hypothesis (H1) posits a positive relationship between attitude and purchase intention for green cosmetics in Malaysia. The hypothesis was tested at a significance level of 0.05, revealing a p-value of 0.000 for attitude. A study by Kim and Chung (2011) provided evidence for this result, which is consistent with the traditional attitude-behavior relationship described in the TPB model (Ajzen, 1991). This confirms the validity of the framework in the context of green cosmetics. It has been argued that the relationship between attitude and intention is relevant to green products, such as organic personal care items. Furthermore, pro-environmental behavior was investigated by Koklic et al. (2019), who discovered that even after controlling for other moderating factors like frequency and moral determinants, customers' attitudes still had a discernible impact on purchase intention. Positive consumer perceptions of eco-friendly cosmetics improve consumers' propensity to buy them. Ling (2013) concurred with this viewpoint as well, stating that attitude and buying intention are positively correlated. Therefore, H1 was supported in this study.

H2: There is a significant relationship between subjective norms and purchase intention towards green cosmetics in Malaysia.

The initial hypothesis (H2) posits a positive relationship between subjective norms and purchase intention for green cosmetics in Malaysia. The hypothesis was tested at a significance level of 0.05, revealing a p-value of 0.003 for subjective norms. This result was supported by a study by Kim and Chung (2011), which shows that subjective norm has a considerable beneficial impact on consumers' propensity to buy green products, such organic personal care items, corroborated this conclusion. This is also explained by the idea that cosmetics are objects that are visible to the public. Thus, customers frequently accept and match their behavior with the advice and comments they get from friends, family, and peers (Hansen et al., 2012). Consequently, the H2 of this study was supported.

H3: There is a significant relationship between perceived behavioral control and purchase intention towards green cosmetics in Malaysia.

The research does not support the third hypothesis (H3), which holds that purchase intention for green cosmetics in Malaysia and perceived behavioral control are closely related. The hypothesis was tested at a significance level of 0.05, revealing a p-value of 0.166 for perceived behavioral control. This contrasts with a study by Wang et al. (2014) that, in the context of sustainable consumerism in China, discovered a positive effect of perceived behavioral control on purchase intention. Nonetheless, it is consistent with Moser's (2016) study, which found that barriers prevent people from engaging in green consumption. Research suggests that, although there is a positive correlation, perceived behavioral control may not have a substantial impact on purchase intention. This could be due to cultural variations and product accessibility, as suggested by research conducted by Ghazali et al. (2017) and Kang et al. (2013). This may also be connected to the theory that customers might believe they don't have enough access to information to enable consumers to make decisions that will lead them to buy eco-friendly cosmetics (Kang et al., 2013). Thus, H3 of this study was not supported.

H4: There is a significant relationship between environmental concerns and purchase intention towards green cosmetics in Malaysia.

The research does not support the fourth hypothesis (H4), which holds that purchase intention for green cosmetics in Malaysia and environmental concerns are closely related. The hypothesis was tested at a significance level of 0.05, revealing a p-value of 0.381 for environmental concerns. This contrasts with Joshi and Rahman's (2015) study, which demonstrated that consumers' environmental concerns influenced their green purchase behavior. Conversely, researchers like Mainieri et al. (1997) suggested that environmental concerns had minimal impacts. Furthermore, it has been suggested by Ulusoy and Baretta (2016) that consumers who have low environmental concerns also have low purchase intentions but high brand trust. Furthermore, previous research, such as that conducted by Vicente-Molina et al. (2013), has found a significant relationship among environmental awareness and sustainable purchasing, indicating that consumers' sustainable behavior is hampered by their lack of understanding of social and environmental issues. This could be the case because consumers' sustainable purchasing behavior is hampered by their lack of understanding of environmental and social issues. According to this report, most Malaysians between the ages of 18 and 24 are unaware of environmental issues. These results highlight how important it is for legislators to support environmental education and expand the amount of information available on sustainable products. Hence, H4 was not supported.

H5: There is a significant relationship between social media marketing and purchase intention towards green cosmetics in Malaysia.

The research does not support the fifth hypothesis (H5), which holds that purchase intention for green cosmetics in Malaysia and social media marketing are closely related. The hypothesis was tested at a significance level of 0.05, revealing a pvalue of 0.155 for social media marketing. This contradicts findings from Yadav and Rahman (2017) and Kim et al. (2019), suggesting that social media marketing builds trust in brands, leading to an increased willingness to purchase. The degree to which consumers believe that the information in green advertising is useful has a significant impact on their decisions. However, green advertising could be overstated or deceptive, which would reduce its value (Goh & Balaji, 2016; Schmuck et al., 2018). If consumers doubt the credibility of green advertisements, the information provided may be deemed unreliable. According to Kronrod, Grinstein, and Wathieu (2012), recipients respond more favorably to assertive appeals in vital areas but require more suggestive appeals when initially unconvinced. In addition, the findings from Abd Rahim et al. (2012) demonstrate that while green advertising is considered an effective means to educate and inspire youth to adopt eco-friendly practices, the level of green awareness in Malaysia remains low. This is due to the government's campaigns being viewed as less effective and engaging, falling short of expected standards. Therefore, H5 of this study was not supported.

5.2 Implications of Study

5.2.1 Theoretical Implications

This research's findings enhance the theoretical comprehension of green consumption in multiple aspects. The study's exploration of factors influencing purchase intention towards green cosmetics in Malaysia offers valuable theoretical implications, notably by confirming the applicability of the Theory of Planned Behavior (TPB) model. The consistent alignment between attitudes, subjective norms, and purchase intentions underscores the significance of attitudes in shaping environmentally conscious consumer behavior. However, the observed lack of a significant correlation between perceived behavioral control, environmental concerns, social media marketing, and purchase intention prompts a reassessment of its importance in the context of green cosmetics. This study also contributes to a nuanced understanding of cultural influences on consumer behavior, emphasizing the need for considerations specific to the Malaysian market. Overall, these theoretical insights provide a foundation for practitioners to employ the TPB model in designing targeted interventions and marketing strategies to promote sustainable cosmetic choices among Malaysian consumers.

5.2.2 Managerial Implications

The research findings offer crucial managerial implications for promoting green cosmetics in the Malaysian market. Marketers can craft targeted strategies by emphasizing the significance of attitudes over perceived behavioral control, aligning messages with consumers' environmental concerns, and leveraging social media for transparent and authentic communication. Educational initiatives can address potential skepticism by enhancing consumer knowledge about the benefits of green cosmetics while recognizing the cultural influence of peer and family guidance can inform community-oriented campaigns. Managers have an opportunity to overcome perceived resource constraints by making eco-friendly products more accessible and affordable, potentially through strategic pricing and distribution initiatives. Additionally, staying attuned to evolving consumer trends and preferences is essential for maintaining the relevance of green cosmetic offerings in a dynamic market. Marketers can utilize this information to identify, segment, and profile consumers based on their motivation to purchase green cosmetics. This understanding enables them to tailor effective strategies for promoting their green cosmetic products to specific target audiences. For instance, raising awareness could involve labeling green cosmetic products with environmental claims and ecocertifications. Employing innovative, eco-friendly packaging represents another effective avenue for fostering awareness of this issue.

5.3 Limitations of the Study

5.3.1 Limited Target Population

The study faces limitations related to a limited target population, specifically only focusing on Malaysian consumers. The generalizability of the findings to a broader, more diverse audience may be limited. This limited demographic scope may pose challenges in extrapolating the findings to a more diverse or global context. Hence, the study's applicability to consumers from different cultural backgrounds or regions beyond Malaysia may be limited.

5.3.2 Unexplored Excluded Variables

Despite the comprehensive approach taken in this study to explore various factors influencing purchase intentions towards green cosmetics, it is essential to acknowledge certain limitations. One notable limitation is the potential exclusion of variables that might significantly impact purchase intentions but were not incorporated into the research design. Variables such as cultural influences, economic factors, or individual psychological traits may play a crucial role in shaping consumer behavior but were not explicitly examined in this study. Consequently, the findings may not fully capture the complexity of the decision-making process regarding green cosmetic purchases. Future research endeavors could address this limitation by incorporating a more extensive array of variables, ensuring a more thorough understanding of the factors influencing consumers' intentions in the context of environmentally friendly beauty products.

5.4 **Recommendations for Future Research**

5.4.1 Broadening Target Population

To enhance the study's robustness and broaden its applicability, it is advisable to consider expanding the target population beyond Malaysian consumers. Including participants from diverse cultural backgrounds or regions would provide a more comprehensive understanding of the factors influencing purchase intention toward green cosmetics. This expansion could facilitate the identification of nuanced differences in consumer behavior and preferences, making the study findings more transferable to a global context. Additionally, incorporating a more diverse sample would contribute to a richer exploration of the complexities surrounding green cosmetics consumption and help address potential limitations associated with the current restricted demographic scope.

5.4.2 Investigate Additional Variables

To enhance the depth and inclusivity of the study on factors influencing purchase intentions toward green cosmetics, it is recommended to incorporate a multifaceted approach by exploring additional variables. Utilize in-depth consumer surveys and focus group discussions to capture nuanced insights from participants, considering variables related to brand loyalty, trust, and psychosocial influences. Consultation with industry experts and environmental professionals can provide specialized perspectives while incorporating a technological analysis to understand the impact of digital platforms on consumer attitudes. Observational methods in real-life shopping scenarios can uncover variables not easily captured self-reporting. Additionally, develop an environmental through consciousness index to measure the depth of consumers' ecological awareness and assess how this consciousness correlates with their purchase intentions. Finally, consider a longitudinal research design to track changes in variables over time, offering a dynamic understanding of evolving consumer behavior and attitude towards green cosmetics.

5.5 Conclusion

In summary, this study provides valuable insights into the factors influencing consumers' intentions to purchase green cosmetics, benefiting both practitioners and the literature. The study acknowledges its limitations and suggests recommendations for future research to build upon these findings.

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APPENDICES

Appendix A: Survey Questionnaire



(Co. No. 578227-M)

UNIERSITI TUNKU ABDUL RAHMAN FACULTY OF ACCOUNTANCY AND MANAGEMENT BACHELOR OF INTERNATIONAL BUSINESS (Honours)

Factors Influencing Purchase Intention Towards Green Cosmetics in Malaysia

Dear respondents,

I am Choong Cai Wen, a final year undergraduate student of the Bachelor of International Business (Hons) from the Faculty of Accountancy and Management at Universiti Tunku Abdul Rahman (UTAR). Currently, I'm conducting my final year project on "Factors Influencing Purchase Intention towards Green Cosmetics in Malaysia".

I would like to invite you to participate in this questionnaire survey. It only takes 5-10 minutes to complete this questionnaire. Kindly be informed that all information provided in this survey will be kept **PRIVATE and CONFIDENTIAL** and used for academic purposes only. If you have any further questions about this survey, please feel free to contact me at cwchoong17@1utar.my.

Thank you for your willingness to participate in this survey.

cwchoong17@1utar.my Switch account

⊘

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
- I) 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 me at cwchoong17@1utar.my

Acknowledgement 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.

Section A: Demographic Profile
Choose one answer from the following options.
1. Gender *
Male
C Female
2. Age group *
Below 24 years old
25 – 34 years old
🔿 35 – 44 years old
45 - 54 years old
Above 55 years old
3. Highest Education Attainment *
Primary
Secondary
O Pre-University / Diploma
Bachelor's Degree
Master's Degree / PhD Degree
O Professional Certificate (ACCA, PMP, CFA, etc.)

4. E	mployment Status *
\bigcirc	Student
\bigcirc	Employed
\bigcirc	Self-employed
\bigcirc	Part-timer
\bigcirc	Unemployed
\bigcirc	Other:
5. li	ncome Level *
\bigcirc	Below RM1000
\bigcirc	RM 1001 – RM 2000
\bigcirc	RM 2001 – RM 3000
\bigcirc	RM 3001 – RM 4000
\bigcirc	Above RM 4000
Sec	ction B: General Information

Please kindly select the answer to the following questions.

6. How often do you use cosmetics or personal care products? *

- 🔵 Daily
- Several times a week
- Occasionally
- Rarely
- Never

7. What types of personal care products do you use regularly? *
Skincare (e.g., moisturizers, cleansers)
Makeup (e.g., foundation, lipstick)
Haircare (e.g., shampoo, conditioner)
Fragrances (e.g., perfumes, colognes)
Other:
8. Have you heard of or used green cosmetics products before? *
○ Yes
O No (Skip to question 10)
9. What factors influence your decision to buy green cosmetics products?
Environmental concerns
Health and safety considerations
Cruelty-free and ethical practices
Support for sustainable practices
10. Are there any specific reasons why you might hesitate to purchase green * cosmetics products?
Lack of availability
Higher cost
Doubts about effectiveness
Lack of information

Section C: Construct Measurement

This section is to obtain the opinions of respondents about factors influencing purchase intention towards green cosmetics in Malaysia. This section is using the Likert Scale (Strongly Agree – 5, Agree – 4, Neutral – 3, Disagree – 2, and Strongly Disagree – 1). Please indicate your level of agreement in the column based on your opinion of each statement.

Purchase Intention *					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am likely to consider purchasing green cosmetics products in the future.	0	0	0	0	0
I would try out a new brand's line of green cosmetics products if it was introduced to the market.	0	0	0	0	0
I am willing to pay a higher price for green cosmetics products compared to conventional products.	0	0	0	0	0

I believe that green cosmetics products are better for the environment and my overall health.	0	0	0	0	0
I consider the opinions of friends, family, or influencers important when deciding whether to purchase green cosmetics products.	0	0	0	0	0
Attitude *					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I believe that using green cosmetics products can have a positive impact on the environment.	0	0	0	0	0

l am concerned about the potential health risks associated with conventional cosmetics products.	0	0	0	0	0
I am willing to invest in green cosmetics products, even if they are more expensive than conventional products.	0	0	0	0	0
I believe that companies should prioritize cruelty-free and ethical practices in the production of cosmetics products.	0	0	0	0	0
I trust that green cosmetics products are made with safer and more natural ingredients compared to conventional products.	0	0	0	0	0

Subjective Norms *						
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
People who are important to me think that using green cosmetics products is a good idea.	0	0	0	0	0	
My family and friends would support my decision to use green cosmetics products.	0	0	0	0	0	
My family and friends think that I should buy green cosmetics products.	0	0	0	0	0	
The opinions of people important to me strongly influence my decision to use green cosmetics products.	0	0	0	0	0	

0	0	0	0	0	
oral Control *	t				
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
	Strongly Disagree	Disagree	oral Control * Strongly Disagree Neutral	oral Control * Strongly Disagree Neutral Agree	oral Control * Strongly Disagree Neutral Agree Agree

I think I will be able to buy green products in the future.	0	0	0	0	0	
I am influenced by my environment when it comes to using green cosmetics products consistently.	0	0	0	0	0	

Environmental Concerns *

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I consider it important that the cosmetics product I use are environmentally friendly.	0	0	0	0	0
I am concerned about the potential negative effects of cosmetics product ingredients on the environment.	0	0	0	0	0

I place importance on cosmetics brands being transparent about their environmental impact and practices.	0	0	0	0	0
I am motivated to reduce my own environmental footprint through my cosmetics choices.	0	0	0	0	0
I would be inclined to switch to green cosmetics products if I learned that they have a lower carbon footprint compared to conventional products.	0	0	0	0	0

Social Media Marke	Social Media Marketing *						
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
I find the information about green cosmetics products shared on social media to be informative and helpful.	0	0	0	0	0		
I believe that social media play a significant role in raising awareness about the benefits of using green cosmetics products.	0	0	0	0	0		
Social media posts or reviews have a significant influence on my decision to try new cosmetics products.	0	0	0	0	0		
I am more likely to consider purchasing green cosmetics products after seeing positive reviews or testimonials on social media.	0	0	0	0	0		



Dependent Variable						
Constructs	Items	Questions	Sources			
Purchase Intention	5	I am likely to consider purchasing green cosmetics products in the future. I would try out a new brand's line of green cosmetics products if it was introduced to the market.	(Tewari et al., 2022); (Nekmahmud et al., 2022)			
		I am willing to pay a higher price for green cosmetics products compared to conventional products				
		I believe that green cosmetics products are better for the environment and my overall health.				
		I consider the opinions of friends, family, or influencers important when deciding whether to purchase green cosmetics products.				
		Independent Variables				
Constructs	Items	Questions	Sources			
Attitude	5	I believe that using green cosmetics products can have a positive impact on the environment.	(Tewari et al., 2022)			
		I am concerned about the potential health risks associated with conventional cosmetics products.				
		I am willing to invest in green cosmetics products, even if they are more expensive than conventional products.				
		I believe that companies should prioritize cruelty-free and ethical practices in the production of cosmetics products.				
		I trust that green cosmetics products are made with safer and more natural ingredients				

Appendix B: Origin of Construct

		compared to conventional products.	
Subjective Norms	5	People who are important to me think that using green cosmetics products is a good idea.	
		My family and friends would support my decision to use green cosmetics products.	
		My family and friends think that I should buy green cosmetics products.	
		The opinions of people important to me strongly influence my decision to use green cosmetics products.	
		People in my social circle think that using green cosmetics products aligns with responsible consumer choices.	
Perceived Behavioral Control	5	I have resources, time, and opportunities to buy green cosmetics products.	(Tewari et al., 2022)
		I feel confident in my ability to consistently use green cosmetics products.	
		I find it easy to incorporate green cosmetics products into my daily routine.	
		I think I will be able to buy green products in the future.	
		I am influenced by my environment when it comes to using green cosmetics products consistently.	
Environmental Concerns	5	I consider it important that the cosmetics product I use are environmentally friendly.	(Dhir et al., 2021)
		I am concerned about the potential negative effects of cosmetics product ingredients on the environment.	
		I place importance on cosmetics brands being transparent about their environmental impact and practices.	
		I am motivated to reduce my own environmental footprint	

		I would be inclined to switch to green cosmetics products if I learned that they have a lower carbon footprint compared to conventional products.	
Social Media Marketing	5	I find the information about green cosmetics products shared on social media to be informative and helpful. I believe that social media play a significant role in raising awareness about the benefits of using green cosmetics products.	(Nekmahmud et al., 2022)
		Social media posts or reviews have a significant influence on my decision to try new cosmetics products. I am more likely to consider purchasing green cosmetics products after seeing positive reviews or testimonials on social media.	
		I am inclined to trust recommendations or endorsements by beauty influencers or bloggers on social media.	