



The Factors Influencing Working Gen Z Intentions to Purchase Green Cosmetics Products in Malaysia

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ABSTRACT

The rising demand for green and sustainable products has positioned green cosmetics as a growing segment of the Malaysian beauty industry. Despite increasing awareness, purchase intentions toward green cosmetics among working generation Z remain inconsistent and underexplored compared to student populations. Therefore, the research aims to examine the influence of attitude, subjective norm, perceived behavioral control and environmental concern on working Gen Z's intentions to purchase green cosmetics in Malaysia. A quantitative, cross-sectional survey design was distributed, targeting 120 working Gen Z respondents selected through purposive sampling. Data were collected using an online structured questionnaire and analyzed through SPSS, incorporating descriptive statistics, reliability tests, normality checks and spearman's rank order correlation. The results revealed that all four independent variables, attitude ($r = 0.647$, $p < 0.01$), subjective norm ($r = 0.657$, $p < 0.01$), perceived behavior control ($r = 0.757$, $p < 0.01$) and environmental concern ($r = 0.657$, $p < 0.01$) showed strong and positive correlations with purchase intentions. These findings indicate that working Gen Z consumers are more likely to adopt green cosmetics when they hold favorable attitudes, experience positive social influence, feel confident in their purchasing ability, possess strong environmental values. Academically, this research contributes by extending the theory of Planned Behavior (TPB) to a working Gen Z context, which has been less examined in previous research. From an industry perspective, the results provide practical guidance for cosmetic brands to strengthen green marketing strategies by enhancing eco-friendly branding, social engagement, affordability and accessibility. By addressing these key factors, businesses can effectively encourage sustainable purchasing behavior and build long term loyalty among Malaysia's working Generation Z consumers.

Keywords— attitude; subjective norm; perceived behavioral control; environmental concern; intentions to purchase

INTRODUCTION

Green cosmetics also known as natural or eco-friendly cosmetics, are developed from planet mineral or animal based ingredients. They aim to minimize pollution, reduce reliance on non-renewable resources and protect biodiversity (Ghazali et al., 2017). Defined by their ingredients and processing, green cosmetics emphasize chemical-free, renewable and locally sourced raw materials, eco-friendly formulations and sustainable packaging.

Malaysia reflects this global trend, with its cosmetics market valued at USD 2.68 billion in 2022, growing at 4.07% annually (DHL, 2022). Growth is further driven by e-commerce, projected to hit USD 13.8 billion by 2025 and social media influence, creating fertile ground for green cosmetics adaptation.

Rapid industrialization and modern lifestyles have face environmental problem such as climate change, pollution and overexploitation of resources (Afrifa et al., 2020; Wang et al., 2020). Conventional cosmetics, often reliant on synthetic chemicals, pose health risks including skin allergies, cancer and illnesses (Oishi, 2002). Despite their benefits, awareness and adaptation of green skincare remain low, as many consumers prioritize convenience or perceive green products as less effective (Lin et al., 2020; Lin & Yang, 2018)

Generation Z (born 1997-2012) is emerging as key driver of cosmetic demand. As digital natives, they value



authenticity, sustainability and ethical brands (Shim et al., 2024). In Malaysia, their purchasing behavior is heavily influenced by social media platforms such as Instagram, TikTok and YouTube (Chuah et al., 2023; Tan Kin Qing et al., 2024). Gen Z consumers also show greater willingness to pay a premium for cruelty-free, eco-friendly and organic products (Shim et al., 2024).

The growing demand for eco-friendly beauty products has drawn attention to green cosmetics, particularly among younger consumers. Yet, despite rising awareness, purchasing intentions toward green cosmetics among working generation z in Malaysia remain inconsistent and influenced by factors not fully understood.

From an academic perspective, most existing studies have focused on university students (Sapri, Abdul Ghabu & Muhd Yusuf, 2023), overlooking working Gen Z who differ in purchasing power, lifestyle, and environmental prioritizes. This creates a research gap in understanding the real drivers of green cosmetics adoption within this influential group.

From an industry perspective, Malaysia continues to face challenges with unsafe cosmetics products containing banned substances such as mercury and hydroquinone, despite regulatory frameworks (MoH, 2024). Reports of continued sales, health risks and consumer harm highlight weaknesses in enforcement and awareness, especially with products promoted through social media. These issues underline the urgency for industry players to strengthen trust through safe, sustainable alternatives. Understanding the factors influencing working Gen Z's purchase intentions is therefore essential to support effective marketing strategies and the growth of ethical cosmetic brands in Malaysia.

The objectives of this research are centered on identifying the key factors that influence working Generation Z's intentions to purchase green cosmetic products in Malaysia. There are four objectives. Firstly, to determine attitude influencing working gen z intentions to purchase green cosmetics products in Malaysia. Secondly to determine subjective norm influencing working gen z intentions to purchase green cosmetics products in Malaysia. Thirdly to determine perceived behavior control influencing working gen z intentions to purchase green cosmetics products in Malaysia. Lastly to determine environmental concern influencing working gen z intentions to purchase green cosmetics products in Malaysia.

LITERATURE REVIEW

Attitude

Attitude as defined by Tan and Ann, (2023) refers to the extent to which an individual holds a favorable or unfavorable evaluation of a particular behavior, considering the expected outcomes of performing that behavior. In the theory of Planned Behavior (TPB), it represents one's readiness to act based on perceived benefits or drawbacks (Ajzen, 1985). In the context of green cosmetics, attitudes reflect how positively working Gen Z in Malaysia view purchasing environmentally friendly products.

Past research has shown that favorable attitudes strongly predict green purchase intentions (Kim & Chung, 2011; Paul et al., 2016; Zaremohzzabieh et al., 2021). These attitudes are often influenced by perceived benefits such as health, environmental safety, and ethical values (Hansen et al., 2012; Choi & Johnson, 2019). In Malaysia, positive attitudes toward organic personal care products significantly influence purchasing intentions (Ali et al., 2016; Ghazali et al., 2017).

As working Gen Z are typically health-conscious, socially responsible and environmentally aware, their positive attitudes toward green cosmetics are likely to enhance their intention to purchase such products (Eldridge, 2024; Andrews & Shimp, 2018).

Subjective norms

Subjective norm, a key component of the theory of Planned Behavior (TPB), refers to the perceived social pressure from important others such as family, friends and society to engage or not engage in a specific behavior (Ajzen, 1991; Ajzen & Fishbein, 1980). In the context of green cosmetics, it reflects the influence of peers, family, and social media on consumers' purchasing intentions.



Previous research show that social influence significantly affects green purchase intentions (Kim & Chung, 2011; Suphasomboon & Vassanadrumrongdee, 2022; Wang et al., 2021). For Gen Z, whose decisions are strongly shaped by peer approval and online trends, societal expectations toward sustainability play a major role (Gunawan et al., 2023; Shimul et al., 2022). Similarly, in Malaysia, peer recommendations, influencers, and media exposure have been found to motivate eco-friendly cosmetic purchases (Hameed et al., 2019; Photcharoen et al., 2020).

Although some research reports mixed findings due to cultural and awareness differences (Pop et al., 2020; Nguyen et al., 2016), subjective norms generally remain a strong predictor of green purchasing behavior. Among working Gen Z in Malaysia, the desire for social acceptance and alignment with sustainable values likely enhances their intention to purchase green cosmetics.

Perceived Behavior control

Perceived Behavior Control (PBC), a key construct of the theory of Planned Behavior (TPB), refers to an individual's perception of ease or difficulty in performing a behavior based on available resources, opportunities and abilities (Ajzen 1991, 2002). It is particularly relevant to green intentions, which often involve factors beyond volitional control (Zhou et al., 2013).

In the context of green cosmetics, PBC reflects how working Gen Z consumers access their capacity time, income, access, knowledge and self-efficacy to make sustainable beauty product choices. Research show that when consumers perceive adequate resources, availability or environmental knowledge, they are more likely to purchase green products (Kim & Chung, 2011; Vermeir & Verbeke, 2006; Ghazali et al., 2017; Chen & Tung 2014; Paul et al., 2016). For example, Meliniasari and Mas'od (2024) confirmed the significant effect of PBC on green cosmetic purchase intention in Indonesia, a market comparable to Malaysia.

Working Gen Z, often described as digitally savvy and environmentally conscious, are more likely to act on green intentions if they perceive themselves as empowered agents of change (McCarty & Shrum, 2001; Wilson & Edelyn, 2021). However, barrier such as high prices, limited accessibility and convenience issues can weaken their sense of control (Barbarossa & De Pelsmaker, 2016). Ajzen (1991) emphasized that both internal factors (e.g., awareness, confidence) and external factors (e.g., affordability availability) shape PBC. In Malaysia, while awareness of green cosmetics is growing, challenges in pricing and distribution continue to affect PBC, especially among younger, price-sensitive consumers (Moser, 2016; Taufique & Vaithianathan 2018).

Although some research present mixed results (Arvola et al., 2008; Kang et al., 2013), the consent remains that PBC positively influences green purchase intention when consumers feel the behavior is within their control (Tarkiainen & Sundqvist, 2005; Sreen et al., 2020). Hence, for working Gen Z in Malaysia, PBC is expected to play a crucial role in shaping intentions toward green cosmetics.

Environmental concern

Environmental Concern (EC) refers to an individual's awareness and recognition of environmental issues, along with their willingness to support efforts to mitigate such problems (Dunlap & Jones, 2002; Hu et al., 2010). It reflects a personal belief that human behavior significantly impacts the health of the planet and acts as a motivational factor in making eco-conscious consumption decisions.

Within the context of green cosmetics, environmental concern has emerged as a key driver of consumer behavior. For working Gen Z in Malaysia, this concern is increasingly shaped by education media exposure, social values and global climate narratives. These generations are often labeled as 'green generations' due to their higher environmental awareness and activism compared to previous cohorts (Smith & Paladino, 2010; Ghazali et al., 2017).

Research show that individuals with high level of environmental concern are more likely to purchase green and organic products, including personal care and skincare items that avoid harmful chemicals and emphasize eco-friendly packaging and sourcing (Kim & Chung, 2011; Prothero & McDonagh, 1992). In the Malaysian context, Chin et al (2018) confirmed that environmental concern significantly predicts green skincare purchase intention,

making it directly relevant to this research.

Moreover, Dembkowski (1998) and Yadav & Pathak (2017) demonstrated that environmental consciousness strongly shapes consumer preference for green cosmetics, especially among younger consumers. As working Gen Z develop stronger pro-environmental values and they tend to align their personal grooming and skincare choices with their ecological beliefs.

Some research have examined the role of environmental concern indirectly, suggesting that its influence may be facilitated by attitudes, subjective norm, perceived behavior control and environmental concern control key variables in the theory of Planed Behavior (Chen & Tung, 2014; Hartmann & Apaolaza-Ibanezm, 2012). However other findings support a direct link between environmental concern and purchase intention (Hutchins & Greenhalgh, 1997), arguing that consumers who value sustainability are more likely to seek out eco-labeled or ethically produced products.

Dependent variable

Working Gen Z Intentions to Purchase Green Cosmetics

Based on attitudes, beliefs, and perceptions of behavior control, purchase intention indicates an individual's willingness to purchase goods (Song et al., 2019). When it comes to green cosmetics, it is a conscious decision to promote environmentally friendly substitutes that are consistent with moral, environmental, and health principles (Jaiswal & Singh, 2018). The objective is influenced by both contextual and psychological variables for Malaysia's working Generation Z.

Gen Z is widely recognized for its environmental activism, social media engagement, and preference for ethical consumption (Montes et al., 2022; Seal & Bag, 2022). Their social and moral ideals can be activated through influencer partnerships, eco-labels, visible certifications, and personalised marketing, which will increase the adoption of green products. Because they prioritise health, wellness, and the environment, this group is especially drawn to organic and eco-friendly cosmetics that highlight natural ingredients, sustainable technologies, and avoidance of hazardous chemicals (Vergura et al., 2022; Limbu & Ahamed, 2023; Sadiq et al., 2021).

At the same time, psychological and social variables such as altruism, ecological concern, green identity and peer influence play an important role (Zhang & Dong; Tran et al., 202). Social media exposure, green education, brand trust and celebrity endorsements further strengthen intentions (Martins & Marto, 2023; Nguyen, 2020). However, barriers such as high prices, limited availability, greenwashing and lack of trust can weaken these intentions and increase hesitation, especially among price sensitive working Gen Z (Kurnia & Mayangsari 2020; Riccolo, 2021).

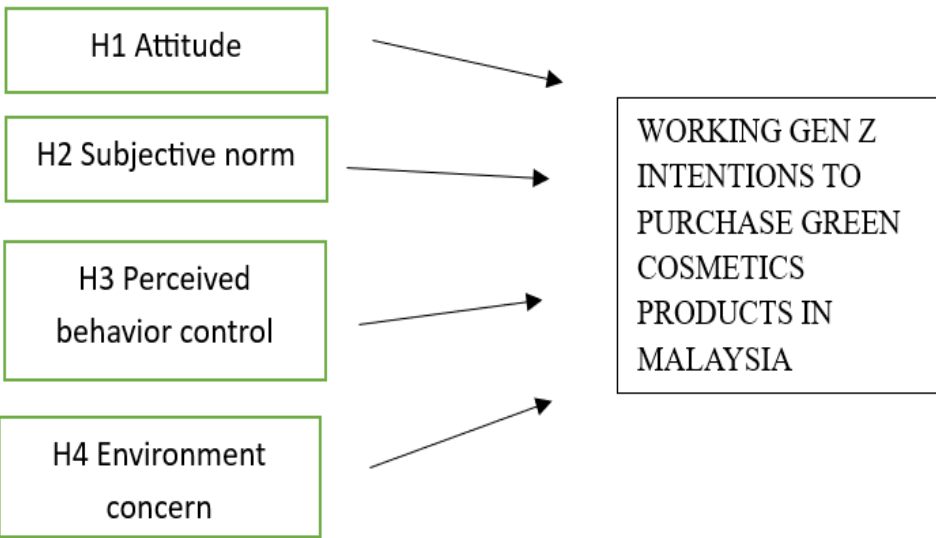
In Malaysia, awareness of halal organic and sustainable cosmetics is rising (Cheong et al., 2016; Nguyen, 2020) but the translation from intention to actual purchase remains complex. Understanding these drivers and barriers is crucial for developing effective strategies that encourage sustainable consumer behavior among working Gen Z.

THEORETICAL FRAMEWORK

This theoretical framework is based on independent and dependent variables. The framework consists of four independent variables, attitude, subjective norm, perceived behavioral control, and environmental concern from the Theory of Planned Behavior (TPB). According to Ajzen (1991), the TPB explains how individuals decide to perform specific behaviors, suggesting that behavioral intention is influenced by one's attitude toward the behavior, perceived social pressure (subjective norm), and perceived control over performing it. Attitude represents an individual's positive or negative evaluation of purchasing green cosmetics, while subjective norm reflects the social influence from peers, family, and society that shapes this decision. These determinants, although conceptually distinct, collectively influence behavioral intentions. The TPB has been widely applied in predicting consumer intentions in various green and pro-environmental contexts, such as green hotels (Chen & Tung, 2014). The dependent variable in this study is the intention of working Gen Z in Malaysia to purchase

green cosmetic products.

Figure 1 Theoretical Framework



METHODOLOGY

This research will be conducted using a quantitative, cross-sectional survey design to analyze the factors affecting the intention of working Gen Z to purchase green cosmetics in Malaysia. The measurement will be done using a five-point Likert scale through a structured questionnaire, distributed via Google Forms. The target group comprises working Gen Z individuals in Malaysia who will be selected through purposive sampling. For reliability, a pilot test will be conducted using Cronbach's Alpha. The data will be analyzed using SPSS for descriptive statistics and correlation. Full compliance with ethical standards, including voluntary participation, anonymity, and informed consent, will be ensured. Based on the quantitative approach, this research has been guided by TPB. The hypotheses developed from TPB are tested with structured, numerical data gathered from responses by working Gen Z. Accordingly, the adopted method eliminates subjective perceptions, enhances objectivity and reliability, and provides ample statistical testing to ensure that findings are generalized across the target population.

The target population is working Generation Z in Malaysia. For the selection of respondents, purposive sampling is used based on age and employment status of the respondent. As per the research objective, purposive sampling was done to ensure only working Gen Z respondents, aged 18-28-year-old, would be included. This is very appropriate for the nature of the present research since it is an exploratory quantitative study. Even though it has been mentioned that purposive sampling is generally utilized in qualitative studies, this approach is also applicable in quantitative research if a specific population with defined characteristics is required. According to Etikan (2016), the focus is on measurable relationships among the variables, attitudes (AT), subjective norm (SN), perceived behavioral control (PBC), environmental concern (EC), and purchase intention. Hence, a quantitative approach is justified. Questionnaires will be distributed online through social media and professional networks because those tools provide wider coverage and cost-effectiveness. A total of 120 respondents responded for this research; this sample size was considered sufficient for descriptive and correlation analyses.

Three sections of an online structured questionnaire are used to gather data: (A) demographics; (B) independent variables (attitude, subjective norm, perceived behavioural control, and environmental concern); and (C) dependent variable (buying intention). In order to guarantee relevance, validity, and reliability in the Malaysian context, items in Sections B and C are modified from validated instruments in earlier research and are measured on a five-point Likert scale. In behavioural research, attitudes, perceptions, and behavioural intentions are frequently measured using the five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) (Joshi, Kale, Chandel, & Pal, 2015).

RESULT AND DISCUSSION

Demographic characteristics analysis

50.8% of the sample of 120 respondents were female, while 49.2% were male, according to the demographic analysis based on (figure 2). This suggests that the sample is slightly favoured in favour of women as the dominant gender, which may have an impact on opinions regarding the intention to purchase green cosmetics.

The respondents were divided into two age groups (18–22 years old and 23–28 years old) based on their age (figure 3). 80.8% of respondents were between the ages of 23 and 28, while 19.2% were between the ages of 18 and 22. This distribution shows that the majority of survey participants are from Generation Z's upper range, which may suggest that young people in their mid-20s are more conscious of or inclined to buy eco-friendly cosmetics than this generation's younger members.

Regarding monthly income, 38.3% of respondents said they make less than RM1,000, followed by 22.5% who make between RM1,001 and RM2,000 and 21.5% who make between RM2,001 and RM3,000. Only 3.3% of respondents reported earning more than RM4,000 per month, while 14.2% claimed earning between RM3,001 and RM4,000. This distribution shows that most respondents are from lower-class backgrounds, which may have an impact on their propensity to buy eco-friendly cosmetics in Malaysia.

Respondents were distributed geographically throughout several states in Malaysia. Selangor had the largest presence (19.2%), followed by Johor (14.2%), Perak (15.0%), and Malacca (12.5%). A smaller portion of the sample came from other states including Negeri Sembilan (10.8%), Kedah (3.3%), Pahang (5.8%), Penang (5.0%), Terengganu (5.8%), Sabah (2.5%), Kelantan (1.7%), and Sarawak (1.7%). This distribution shows that working Gen Z was concentrated in central, more urbanised areas like Selangor, Johor, and Perak, which may indicate that these states have greater aspirations to buy green cosmetics than other states.

Finally, regarding the frequency of green cosmetics product purchases, over half of the respondents (51.7%) stated that they buy green cosmetics infrequently (every two to three months). While 16.7% said they buy these products regularly (one to three times per month), another 25.8% said they buy them infrequently (one to two times per year). Just 0.8% of respondents said they buy green cosmetics frequently (once a week or more), and only 5.0% said they never buy them. These findings show that while awareness of and occasional use of green cosmetics are somewhat common, working Gen Z respondents' consistent and frequent shopping habits are still relatively low.

Figure 2: Gender

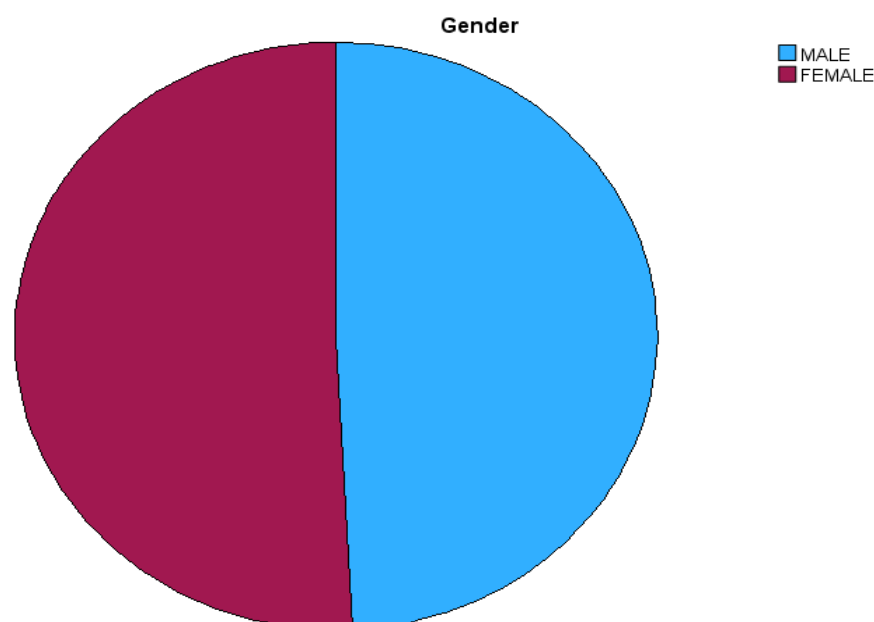


Figure 3: Age

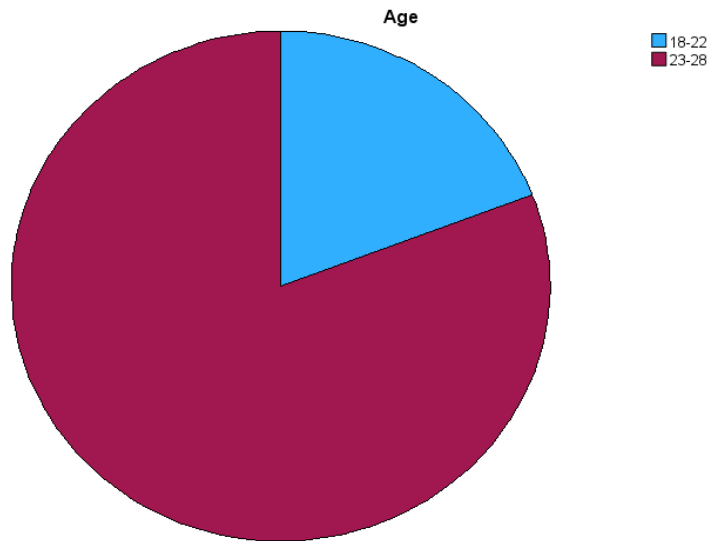


Figure 4: Monthly income

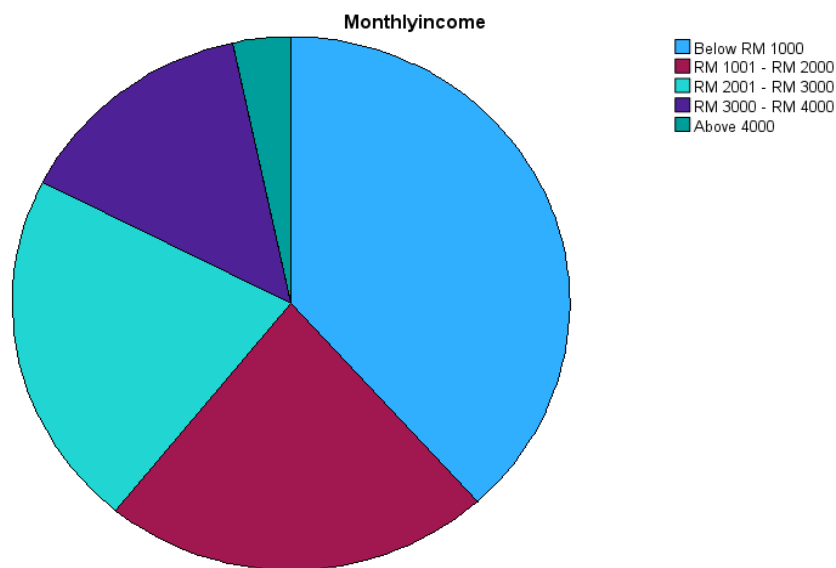


Figure 5: State

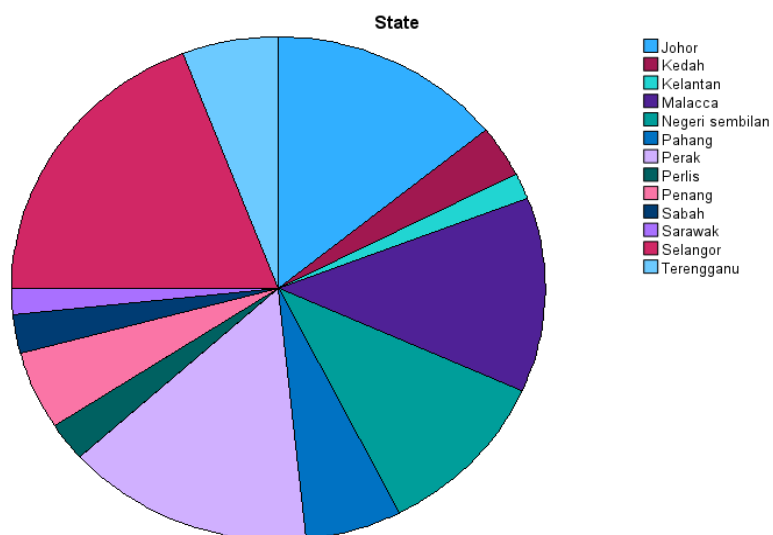
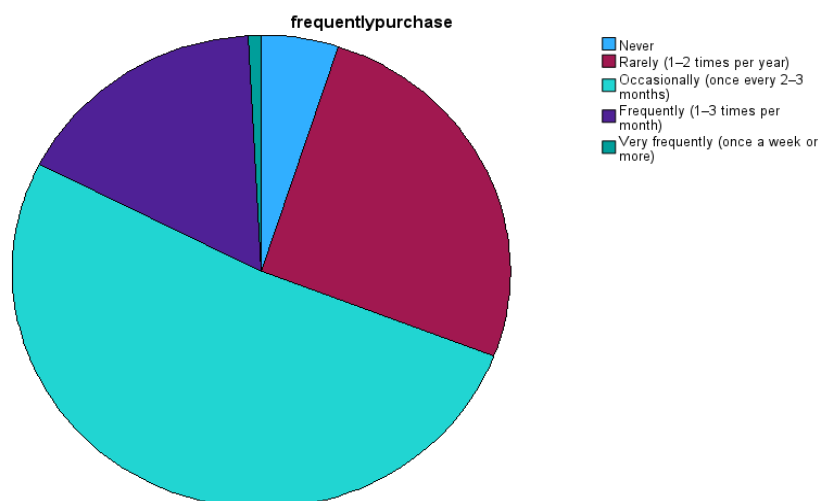


Figure 6: Frequency of purchase



Descriptive Statistic Analysis

The descriptive statistical analysis include, means, standard deviations:-

Table 1: Descriptive Statistics

	N	Mean	Std. Deviation
Attitude	120	4.050	0.851
Subjective norm	120	3.822	0.838
Perceived behavior control	120	3.945	0.802
Environmental concern	120	4.010	0.838
Working gen z intention to purchase green cosmetics products	120	4.017	0.816

The descriptive statistics for attitude, subjective norm, perceived behaviour control, environmental concern, and the intention of working Generation Z to buy green cosmetics are shown in Table 1. According to the findings, attitude had a mean score of 4.050 and a standard deviation of 0.851. According to the interpretation scale, this is in the "high" category, meaning that most respondents had a very favourable opinion on cosmetics that are environmentally friendly. This implies that people think buying eco-friendly makeup is advantageous, appealing, and consistent with their own beliefs.

With a mean score of 3.822 and a standard deviation of 0.838, the subjective norm is in the "moderately high" category. This suggests that, although it is not as strong as their own attitude or environmental concern, respondents feel a good amount of social pressure or influence from friends, family, or society to engage in environmentally friendly purchase behaviour.

With a mean score of 3.945 and a standard deviation of 0.802, the perceived control over behaviour fell into the "moderately high" range. This suggests that respondents typically believe they have some influence over their purchasing behaviour, albeit not as much as other aspects.

With a mean score of 4.010 and a standard deviation of 0.838, environmental concern is classified as "high." This indicates that respondents are highly conscious of and concerned about environmental issues, which may have an impact on their inclination towards sustainable goods,

In the same direction, working Generation Z's intention of purchasing green beauty products had the highest mean score (4.017) with a standard deviation of 0.816, falling into the "high" group. This shows that respondents are eager to support eco-friendly products and have a high intention to buy green cosmetics.

Reliability and Normality Test

Cronbach's Alpha coefficients were calculated for each variable to guarantee internal consistency among the measurement items (refer to Table 2). The findings demonstrate that all five constructs attitude ($\alpha = 0.910$), subjective norm ($\alpha = 0.920$), perceived behavior control ($\alpha = 0.897$), environmental concern ($\alpha = 0.897$), and purchase intention ($\alpha = 0.899$) exceed the Hair et al. (2019) recommended minimum acceptable level of 0.70.

Table 2: Reliability Test

Reliability Statistics (N of items 3)	
Variables	Cronbach's Alpha
Attitude	0.910
Subjective norm	0.920
Perceived behavior control	0.897
Environment concern	0.897
Purchase intention	0.899

Given that the sample size exceeded 50 respondents ($n = 120$), the Kolmogorov–Smirnov (K–S) test was performed to determine if the data followed a normal distribution. The significance values for every variable are less than 0.001, as Table 3 shows. The decision rule states that the null hypothesis of normality is rejected when the p-value is less than 0.05. Consequently, it can be said that every variable deviates considerably from a normal distribution.

To further evaluate the shape of the data distribution for each construct, skewness and kurtosis values were examined in addition to the K–S test. The data are significantly left-skewed, with more respondents choosing higher scale values (such as agree or strongly agree), according to the moderately negative skewness values, which range from -0.554 to -1.493 . According to George and Mallery (2010), the kurtosis values are generally below or near the acceptable threshold of 2. They range from -0.508 to 3.009 . This shows that while some items (such as AT1 and AT5) have slightly higher kurtosis, indicating a somewhat more clustered response pattern, the majority of the variable distributions are neither very peaked nor excessively flat.

The Kolmogorov-Smirnov test's significant results verify that the data are not normally distributed even though the skewness and kurtosis values are acceptable. Non-parametric statistical techniques are therefore better suited for additional analysis. Therefore, the associations between the independent variables of attitude, subjective norm, perceived behavior control and environmental concern and the dependent variable of purchase intention towards green cosmetics will be examined using the Spearman's rank-order correlation test.

Table 3: Normality Test, skewness and kurtosis

Variable	Kolmogorov–Smirnov Statistic	Sig.	Skewness	Kurtosis
AT1	0.269	<.001	-1.493	3.009
AT2	0.285	<.001	-1.225	1.784
AT3	0.239	<.001	-0.810	-0.041
AT4	0.251	<.001	-1.318	1.916
AT5	0.253	<.001	-1.467	2.268
SN1	0.219	<.001	-0.680	0.389
SN2	0.271	<.001	-0.797	0.853
SN3	0.234	<.001	-0.662	0.330
SN4	0.208	<.001	-0.587	-0.289
SN5	0.210	<.001	-0.660	0.082
PBC31	0.215	<.001	-0.554	0.231
PBC32	0.239	<.001	-0.770	0.323
PBC33	0.223	<.001	-0.813	0.786
PBC34	0.225	<.001	-0.652	0.157
PBC35	0.218	<.001	-0.881	0.540
EC41	0.237	<.001	-0.935	0.605
EC42	0.277	<.001	-1.001	1.375
EV43	0.243	<.001	-0.983	0.986
EV44	0.242	<.001	-1.113	1.139
EV45	0.232	<.001	-0.882	0.847
PI1	0.276	<.001	-1.083	1.059
PI2	0.237	<.001	-0.902	0.784
PI3	0.180	<.001	-0.516	-0.508
PI4	0.226	<.001	-0.780	0.443
PI5	0.246	<.001	-0.706	-0.237

Note: Kolmogorov–Smirnov test, skewness and kurtosis with df = 120 (Lilliefors Significance Correction applied).

Correlation

Spearman's rank-order correlation was used in the present study instead of Pearson's correlation, as the result of the normality test indicated that the distribution of data was not normal, with $p < 0.05$. Spearman's correlation is a non-parametric test that describes the strength and direction of association between two ranking variables.

In this research, Spearman's correlation was used to examine the dependent variable (the intention to purchase green cosmetics of working Gen Z) and independent factors, which are attitude, subjective norm, perceived behavioral control, and environmental concern.

Correlations Between IV and DV

Table 4 presents the Spearman's correlation results between the independent factors and working Gen Z's intention to purchase eco-friendly cosmetics in Malaysia. From the correlation analysis, Attitude ($r = 0.647$, $p < 0.01$) and subjective norm ($r = 0.657$, $p < 0.01$) both have strong associations with purchase intention. On the other hand, Environmental Concern and Perceived Behavior Control were found to be very strongly and positively correlated with purchasing intention, with a correlation coefficient of ($r = 0.704$, $p < 0.01$) and ($r = 0.757$, $p < 0.01$) respectively. This means that respondents' intentions to buy green cosmetics items were highly correlated with their attitude, subjective norms, perceived behavior control and environmental concern.

Table 4: Correlations Between IV and DV

Independent variable	Working gen z intention	p-value	Interpretation
Attitude	0.647	$p < 0.01$	Strong relationship
Subjective norm	0.657	$p < 0.01$	Strong relationship
Perceived Behavior Control	0.757	$p < 0.01$	Very strong relationship
Environmental concern	0.704	$p < 0.01$	Very strong relationship

Hypothesis testing

From Table 5, attitude is significantly positively correlated with purchase intention, with a correlation coefficient of 0.647 and significance level of $p < 0.01$. Therefore, H_0 is rejected due to the fact that the p-value is below 0.01, indicating that a positive attitude toward green cosmetics significantly enhances working Gen Z's intention to purchase eco-friendly products. Thus, H_1 is supported, proving that attitude has a positive influence on working Gen Z's intention to purchase green cosmetics.

According to Table 5, subjective norm and purchase intention are positively correlated at a significance of $r = 0.657$, $p < 0.01$. Because the p-value is below 0.01, H_0 should be rejected. That is, the greater the social influence from peers, family, and society, the greater the intention to purchase. Hence, it can be said that H_2 is supported since subjective norm positively influences working Gen Z's intention to buy green cosmetics.

The correlation research based on Table 5 revealed a very strong positive correlation of $r = 0.757$ and $p < 0.01$; therefore, stronger purchase intentions are significantly associated with higher perceived control of behavior. The null hypothesis (H_0) is rejected since the p-value is less than 0.01. This implies that higher purchase intention is significantly related to the perceived behavioral control. The test result gives support to H_1 : Higher levels of perceived behavioral control significantly enhance intentions toward purchasing green cosmetics among working Gen Z.

Table 5 shows that the results indicate a significant positive relationship, $r = 0.704$, $p < 0.01$; hence, the hypothesis that increased awareness for environmental issues significantly raises purchasing intention is supported. Since the p-value is less than 0.01, the null hypothesis, H_0 , is rejected, which proves that with greater

environmental concern, the purchasing intention significantly increased. The result, therefore, leads to the support of H2, which states that with greater environmental concern, working Gen Z's intention to buy green cosmetics significantly increased.

Table 5: Hypothesis testing

Hypothesis	Status
H1: Attitude positively influences working Gen Z's intention to purchase green cosmetics products in Malaysia.	Supported
H2: Subjective norm positively influences working Gen Z's intention to purchase green cosmetics products in Malaysia.	Supported
H3: Perceived behavior control positively influencing working gen z intentions to purchase green cosmetics products in Malaysia.	Supported
H4: Environmental concern positively influencing working gen z intentions to purchase green cosmetics products in Malaysia.	Supported

DISCUSSION

Attitude positively influences the intention of working Gen Z to purchase green cosmetics in Malaysia, as stated by the first hypothesis of this research, H1. The correlation analysis showed a very strong positive relationship between attitude and purchase intention, as expressed by the value of $r = 0.647$, with $p < 0.01$. This means that the more favorable the attitude of the respondents toward green cosmetic products, the more they are willing to form an intention to purchase the product. This confirms the TPB theory postulated by Ajzen (1991), which states that attitude toward a behavior is among the vital factors that determine behavioral intention. Similarly, Yadav and Pathak (2017) found that a positive attitude toward green products leads to stronger purchase intentions in developing countries. In addition, Joshi and Rahman (2019) pointed out that if consumers believe green cosmetics are good for health and the environment, then a positive attitude increases their willingness to buy. Therefore, increasing positive perceptions about green cosmetics through marketing communication that emphasizes not only environmental but also personal benefits can significantly strengthen the purchase intentions of working Gen Z in Malaysia.

The second hypothesis, H2, stated that subjective norm will positively influence working Gen Z's intention to buy green cosmetics in Malaysia. This hypothesis was supported from the correlation analysis with a strong positive relationship, $r = 0.657$, and significant at $p < 0.01$. This infers that such social influence, like the opinions of friends, family, peers, and online communities, has a significant bearing on the purchasing intention of Gen Z. According to Ajzen (1991), the subjective norm is a perceived social pressure to perform or not perform a behavior. The findings also corroborate Paul et al. (2016) and Nguyen et al. (2020), which found that peer influence and social media communities are considerable predictors of the green purchasing behavior of younger consumers. Furthermore, Ewe and Tjiptono (2023) stressed that green brand familiarity and social media advocacy can boost social approval of sustainable consumption. Indeed, given the highly active online nature of Generation Z, positive discussions and endorsements of eco-friendly cosmetic products will establish quite compelling normative pressure to purchase green products.

H3, perceived behavior control positively influences the purchase intention of working Gen Z to buy green cosmetics in Malaysia. In this respect, higher levels of perceived behavior control were substantially correlated with stronger purchase intentions, with a value of $r = 0.757$ and $p < 0.01$. This indicates that the more secure respondents feel about their ability to afford, access, and make decisions about these goods, the greater the likelihood that they acquire intentions to purchase green cosmetics. Furthermore, TPB suggests that perceived behavioral control is one of the major predictors of intention (Ajzen, 1991). In a similar, Alam and Sayuti's research (2011) also found that consumers' perceived behavioral control had major effects on purchase intention in product contexts involving ethical issues. Similarly, Anjum et al. (2023) found that perceived control has a significant effect on Gen Z's intention to consume environmentally in Malaysia. Besides, Ewe and Tjiptono (2023) highlighted how green purchase behavior was influenced positively by green awareness and brand familiarity, with lowered psychological and informational barriers. Therefore, it appears from these findings that by eliminating certain barriers to cost, accessibility, and awareness, Gen Z can be made much more likely to purchase ecologically friendly cosmetics.



The fourth hypothesis, H4, suggested that environmental concern positively influences working Gen Z's intentions to buy eco-friendly cosmetics in Malaysia. Analysis showed a very strong positive relationship: $r = 0.704$, $p < 0.01$. This result also indicates that a higher degree of environmental concern means a higher intention to buy green cosmetics among respondents. This result reiterates various research proving that environmental concern significantly predicts pro-environmental consumption behavior, which has been evinced by Yadav and Pathak (2017) and Nguyen et al. (2020). Generation Z is more likely to consider sustainability in purchase decisions due to more exposure to environmental issues through increased education and information on social media. Therefore, business activities are more likely to appeal to Generation Z customers if their products reflect considerations of the natural environment. This has been corroborated in recent studies; for example, Nguyen et al. (2023) conducted a systematic review and established environmental concern as one of the most valid drivers of consumers' intentions to buy green cosmetics globally, while Makhdoomi and Wani (2024) showed that environmental values influence the intention of Gen Z to pay more for sustainable products despite high prices. However, some research show diversity. For example, Goh et al. (2023) found that environmental awareness alone had little effect on the intention to buy green cosmetics, which suggests that emotional concern may be more persuasive than mere knowledge.

Put together, the findings indicate that attitude, subjective norm, perceived behavior control, and environmental concern significantly and strongly predict working Gen Z's intention to buy green cosmetics. It follows that green marketing strategies related to this particular market may focus on attitude formation, strengthening social influence, enhancing consumers' perceived control via affordability and access, and bolstering their environmental values in the process. This, in turn, can help businesses integrate these psychosocial factors with the environmental ones to enhance consumer confidence in triggering a sustainable purchase response among Malaysia's working Generation Z.

CONCLUSION

This paper offers valuable academic and industrial contributions to knowledge by establishing factors that influence the purchase intention of working Generation Z towards green cosmetic products in Malaysia. Academically, it fills an important literature gap by extending the focus beyond students to working Gen Z individuals, who are a distinct group with higher purchasing power and changing sustainability values. From an industrial point of view, the findings will be of great guidance to cosmetic brands wishing to meet sustainable practice and consumer expectations with strategies such as clean beauty branding, ethical sourcing, and eco-friendly packaging.

The findings showed that attitude, subjective norm, perceived behavioral control, and environmental concern are all significantly and positively related to the intention of working Gen Z to buy green cosmetics. Therefore, this research successfully met its aims by showing that both psychological factors-attitude, subjective norm, perceived behavioral control-and environmental concern are vital in driving sustainable purchase behavior. These findings indicate that the development of positive perceptions, use of social influence, and ensuring product access, affordability, and environmental credibility are needed to enhance green purchase intentions among working Gen Z consumers.

For businesses, the implications are clear, improving eco-friendly branding, improving product availability, and communicating genuine commitment to the environment will be drivers of adoption among Malaysia's working Gen Z-a key demographic shaping the future of sustainable consumption.

These notwithstanding, a number of limitations have to be recognized the small sample size of 120 respondents through purposive sampling may limit generalizability. Secondly, the majority of participants came from urbanized states and thus are under representative of rural and East Malaysian perspectives. Lastly, this is a cross-sectional study and thus does not track changes in attitudes and intentions over time.

In order to enhance future research, several recommendations are proposed: increase the sample size and widen the coverage to include a more diverse range of respondents all over the country. Secondly, conduct comparative or longitudinal research to study changes in green purchase behavior across generations or time. Thirdly, add more variables like the influence of social media or price sensitivity in order to have a broader model. And lastly,

incorporate qualitative approaches such as interviews or focus groups to uncover deeper motivations and barriers.

The findings of this research identify attitude, subjective norm, perceived behavioral control, and environmental concern as important precursors of working Generation Z's green cosmetic purchase intentions in Malaysia. By appealing to both personal and environmental interests, cosmetic companies can not only more effectively promote sustainable consumption but also build long-term customer loyalty in an increasingly ecologically sensitive market.

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