

DRIVING SUSTAINABLE CONSUMPTION: THE ROLE OF GREEN MARKETING AND BRAND AWARENESS IN SHAPING GEN Z CONSUMERS' PURCHASE INTENTION

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Abstract: Purchase intention toward eco-friendly cosmetics is increasingly influenced by sustainability-driven marketing strategies and consumer awareness. However, limited empirical studies have examined their combined effects on Generation Z consumers. This study explores the impact of green marketing and brand awareness on purchase intention in the eco-friendly cosmetics sector. A quantitative approach was employed, collecting data from 100 Gen Z respondents who had previously purchased eco-friendly cosmetic products through structured questionnaires. Descriptive statistics reveal that respondents hold moderately to highly positive perceptions of green marketing, brand awareness, and purchase intention. Classical assumption tests including normality, heteroscedasticity, and multicollinearity confirmed that the data were appropriate for multiple linear regression analysis. The results show that green marketing ($\beta = 0.542$, $p < 0.001$) and brand awareness ($\beta = 0.450$, $p < 0.001$) significantly and positively influence purchase intention. The coefficient of determination ($R^2 = 0.497$) indicates that these variables together explain nearly half of the variance in purchase intention, while the F-test further validates their joint significance ($p < 0.001$). In conclusion, the findings underscore that strengthening green marketing practices and enhancing brand awareness are critical strategies for encouraging purchase intention toward eco-friendly cosmetics among Generation Z consumers.

Keywords: Green Marketing, Brand Awareness, Purchase Intention, Eco-friendly Cosmetics, Generation Z

1. Introduction

In the last twenty years, sustainability has emerged as a major concern worldwide. According to the Intergovernmental Panel on Climate Change (IPCC, 2022), challenges such as global warming, environmental pollution, and the overuse of natural resources require urgent action across various sectors, particularly within the consumer goods industry. Consumers are increasingly aware that their consumption patterns affect the environment. This condition drives companies to adopt environmentally friendly strategies, one of which is green marketing. Green marketing includes marketing efforts that emphasize sustainability, such as the use of natural ingredients, recyclable packaging, and environmentally driven campaigns (Aldaihani et al., 2024; Peattie & Crane, 2005).

Moreover, brand awareness is an important factor that shapes consumer behavior. According to Keller (2013), it reflects the extent to which consumers can identify and remember a particular brand. In the context of sustainability, brand awareness not only introduces a brand but also strengthens its credibility regarding eco-friendly claims. Recent studies indicate that brand awareness positively contributes to purchase intention, particularly when combined with sustainable marketing strategies (Baltaci et al., 2024; Utami et al., 2023).

Generation Z is a highly relevant consumer segment in this context. They are known for their strong concern for environmental and social issues and are more critical of the sustainability values promoted by brands (Francis & Hoefel, 2018; Hudayah et al., 2023). However, research

also reveals an attitude–behavior gap among Gen Z; while they express concern for the environment, actual purchase decisions are often influenced by price, convenience, and brand image (ESW, 2023; Vogue Business, 2021). This highlights the importance of marketing strategies that can bridge environmental awareness with actual purchasing behavior.

The eco-friendly cosmetics industry is particularly relevant for testing this phenomenon. Cosmetics represent high-consumption products among Gen Z, and their production and marketing practices have significant environmental impacts. Global brands such as The Body Shop and Love Beauty and Planet have implemented green marketing through natural ingredients, eco-certifications, and social campaigns. A study in Vietnam found that consumer knowledge and awareness of green cosmetics significantly increase purchase intention (Nguyen et al., 2022). Another study in Indonesia showed that green marketing influences Gen Z's purchase intention, although its contribution remains relatively modest (Junaedi et al., 2025). A study conducted in Thailand revealed that perceived value and ethical concerns enhance the link between green marketing efforts and consumers' intention to purchase personal care products (Thongmak, 2022).

The existing literature is not yet cohesive; for instance, Junaedi et al. (2025) examined the role of green marketing in influencing purchase intention, while Baltaci et al. (2024) focused more on how brand awareness shapes consumer behavior. Yet few studies have integrated both variables simultaneously within the context of eco-friendly cosmetics, particularly among Gen Z. Therefore, this study is necessary.

Academically, this study enriches the body of knowledge on sustainable consumption by examining how green marketing and brand awareness affect purchase intention. Practically, it offers valuable implications for cosmetic firms in developing credible marketing strategies, enhancing brand recognition, and motivating Generation Z to buy eco-friendly cosmetic products.

2. Literature Review

Green Marketing

Green marketing refers to a marketing approach that integrates sustainability principles by addressing environmental, social, and ethical factors in every stage of the marketing process (Peattie & Crane, 2005). Papadas et al. (2019) identify four main elements of this strategy: green product, green price, green place, and green promotion. The goal is not only to satisfy consumer demand but also to generate beneficial outcomes for the environment.

Several studies have demonstrated the significant influence of green marketing on consumer behavior. Aldaihani et al. (2024) revealed that green marketing enhances consumer trust and boosts purchase intention for environmentally friendly products. Similarly, Junaedi et al. (2025) showed that while green marketing positively affects Gen Z's purchase intention in Indonesia, the impact remains modest, indicating the importance of additional factors like brand trust and brand awareness. A study by Thongmak (2022) in Thailand confirmed that green marketing works more effectively when combined with consumers' perceived value and ethical concerns.

In the context of eco-friendly cosmetics, green marketing is implemented through the use of natural ingredients, organic certification, recyclable packaging, and promotional campaigns emphasizing environmental responsibility (Nguyen et al., 2022). Such strategies have become

essential for cosmetic companies seeking to attract younger consumers, especially Gen Z, who are increasingly critical of environmental issues.

Brand Awareness

Brand awareness reflects the extent to which consumers can identify and recall a brand (Keller, 2013), encompassing two main components: recognition and recall. Within the framework of green marketing, brand awareness plays a key role in reinforcing a company's sustainability message. According to Utami et al. (2023), brand awareness enhances purchase intention by strengthening consumer trust in brands that are perceived to uphold sustainable practices.

Baltaci et al. (2024) found that green brand awareness serves as a mediator in the relationship between green marketing and purchase intention. Consumers who are aware of a brand's eco-friendly positioning tend to exhibit stronger purchase intention toward its products. This is particularly relevant for Gen Z, who are highly active on social media and receptive to sustainability-related information disseminated through digital channels (Vogue Business, 2021).

In the cosmetics industry, brand awareness is crucial. Eco-friendly cosmetics are often perceived as more expensive than conventional products. However, strong brand awareness helps consumers accept higher prices, as they trust the quality and sustainability claims of the products (Nguyen et al., 2022).

Purchase Intention

According to Ajzen (1991), purchase intention can be defined as the likelihood or willingness of consumers to acquire a particular product, which depends on how they evaluate its usefulness, benefits, and overall worth. The Theory of Planned Behavior (TPB) proposes that intention is shaped by three determinants: attitude toward the action, subjective norms, and perceived behavioral control. In relation to green marketing, a consumer's positive evaluation of eco-friendly goods represents attitude, social encouragement toward sustainable consumption represents subjective norms, and the perceived convenience or ability to obtain these products reflects behavioral control (Ajzen, 1991; Paul et al., 2016).

Generation Z represents a unique consumer segment, as they exhibit strong concern for environmental issues but continue to show an attitude-behavior gap (Hudayah et al., 2023). A report by ESW (2023) revealed that more than 60% of Gen Z reject purchasing products considered harmful to the environment, yet price, convenience, and brand credibility remain dominant determinants of actual purchase behavior.

In the cosmetics industry, purchase intention is influenced by product quality, brand image, and eco-friendly claims. Nguyen et al. (2022) found in Vietnam that consumer awareness of green cosmetics significantly enhances purchase intention. According to Junaedi et al. (2025), Indonesian Gen Z are more inclined to buy eco-friendly cosmetics when companies maintain consistent green marketing efforts and foster strong brand recognition.

Relationship Between Variables

Green Marketing → Purchase Intention

Green marketing has been shown to positively influence purchase intention, though its strength varies across different contexts (Aldaihani et al., 2024; Junaedi et al., 2025).

Brand Awareness → Purchase Intention

Brand awareness builds consumer trust, which directly contributes to purchase intention (Utami et al., 2023).

Green Marketing + Brand Awareness → Purchase Intention

Several studies confirm that brand awareness can strengthen the relationship between green marketing and purchase intention (Baltaci et al., 2024). This suggests that sustainable marketing strategies are more effective when communicated through well-recognized brands.

3. Method**Research Design**

This research utilizes a quantitative methodology through surveys, aiming to examine how Green Marketing (X1) and Brand Awareness (X2) influence the Purchase Intention (Y) of Generation Z consumers toward eco-friendly cosmetic products. The study follows a causal research design, intended to identify cause-and-effect relationships among variables by applying multiple linear regression analysis.

Population and Sample

The research population consists of Generation Z consumers (born between 1997–2013) who have purchased eco-friendly cosmetic products in Indonesia. The sample was determined using purposive sampling with the following criteria:

1. Respondents are members of Generation Z (aged 18–28 years).
2. Have purchased and used eco-friendly cosmetic products (e.g., The Body Shop, Love Beauty and Planet, Sensatia Botanicals, or similar brands).

A total of 100 participants were chosen, fulfilling the minimum sample size criteria for quantitative studies employing multiple regression analysis (Hair et al., 2019).

Research Instrument

The study employed a structured questionnaire as the research instrument, utilizing a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The measurement indicators were as follows:

- Green Marketing (X1): 6 indicators adapted from Papadas et al. (2019).
- Brand Awareness (X2): 6 indicators adapted from Keller (2013).
- Purchase Intention (Y): 6 indicators adapted from Ajzen (1991) and Paul et al. (2016).

Data Collection Technique

Primary data were gathered using an online questionnaire administered through Google Forms. Respondents were selected based on predetermined purposive sampling criteria. In addition, secondary data were obtained from relevant literature to strengthen the theoretical foundation.

Data Analysis Technique

Data were analyzed using SPSS version 26 through the following steps:

a. Classical Assumption Tests

1. Normality Test
 - Conducted using a Normal P–P Plot to examine the distribution of residuals.
 - Supported by the Kolmogorov–Smirnov test, with a significance value > 0.05 indicating normally distributed residuals.
2. Heteroscedasticity Test

- Performed using a scatterplot between residuals and predicted values.
- If the points are randomly distributed without a specific pattern, heteroscedasticity is absent.
- 3. Multicollinearity Test
 - Examined using Tolerance (> 0.10) and Variance Inflation Factor ($VIF < 10$).
 - If the criteria are met, the data are considered free from multicollinearity.

b. Multiple Linear Regression Analysis

The regression model used is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where:

Y : Purchase Intention

X_1 : Green Marketing

X_2 : Brand Awareness

α : Constant

β_1, β_2 : Regression coefficients

ε : Error term

This analysis aims to determine both the partial and simultaneous effects of green marketing and brand awareness on purchase intention.

c. Hypothesis Testing

1. t-test (partial): Used to assess the impact of each independent variable individually on purchase intention.
2. F-test (simultaneous): Employed to evaluate the joint influence of all independent variables on purchase intention.
3. Coefficient of Determination (R^2): Indicates the proportion of variance in purchase intention that can be explained by the independent variables.

4. Result and Discussion

Descriptive Analysis

Descriptive analysis was carried out to summarize respondents' views on the research variables. The resulting table displays the minimum and maximum values, along with the mean and standard deviation for each variable.

- a. Green Marketing had a mean score of 28.11 ($SD = 2.14$) with a score range of 24–36. The relatively high mean indicates that Generation Z respondents generally perceive the green marketing strategies applied in eco-friendly cosmetics as fairly good.
- b. Brand Awareness obtained a mean score of 28.53 ($SD = 3.06$) with a range of 24–38, suggesting that respondents have a good level of brand awareness toward eco-friendly cosmetic products.
- c. Purchase Intention recorded a mean of 28.93 ($SD = 3.25$) with a range of 24–40, reflecting that respondents exhibit a relatively high purchase intention for eco-friendly cosmetic products.

Overall, these descriptive findings indicate that all variables scored above the midpoint of the scale, signifying Generation Z's positive attitudes toward green marketing, brand awareness, and purchase intention regarding eco-friendly cosmetics.

Table 1. Result of Descriptive Statistics

Variable	Minimum	<u>Maksimum</u>	Mean	Standard Deviation
Green Marketing	24	36	28.11	2.15
Brand Awareness	24	38	28.53	3.06
Purchase Intention	24	40	28.93	3.26

Source : Processed Data, 2025

Classical Assumption Test Normality Test

A normality test was performed to verify that the residuals from the regression model were approximately normally distributed, a key assumption in linear regression to ensure unbiased coefficient estimates (Gujarati & Porter, 2009). In this study, normality was assessed using both the Kolmogorov–Smirnov test and the Normal P–P Plot.

The Kolmogorov–Smirnov test yielded an Asymp. Sig. (2-tailed) value of 0.000, which is below the 0.05 significance level, indicating that the residuals are not perfectly normally distributed. Nevertheless, this test can be overly sensitive in larger samples ($n > 50$), where minor deviations from normality may result in statistically significant outcomes (Field, 2018). Therefore, normality was also evaluated through the Normal P–P Plot, which showed that the residuals were closely aligned with the diagonal line, suggesting an approximate normal distribution. Considering the relatively large sample size of 100 respondents, the normality assumption can be regarded as adequately met, supporting the validity of the regression model (Hair et al., 2019).

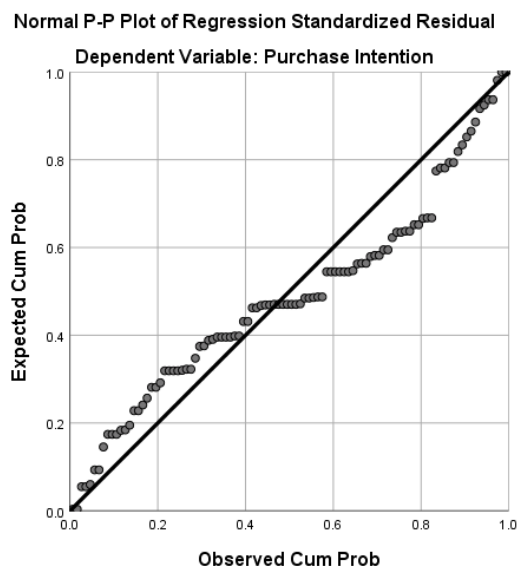


Figure 1: Normal P–P Plot of Regression Standardized Residual
Source: Processed Data, 2025

Table 2. Result of Normality Test

Unstandardized Residual	Sig.
Kolmogorov Smirnov Test	0.000

Source : Processed Data, 2025

Heteroscedasticity Test

The heteroscedasticity test was conducted to check for the presence of unequal residual variances across observations. If heteroscedasticity occurs, the error variance is not constant, leading to inefficient and potentially biased regression estimates (Wooldridge, 2016). In this study, the test was performed using a scatterplot between predicted values (ZPRED) and residuals (SRESID). The scatterplot revealed points randomly distributed above and below the zero axis without forming any clear pattern such as funnel-shaped widening or narrowing. This indicates that the data do not suffer from heteroscedasticity. Thus, the assumption of homoscedasticity is fulfilled, ensuring unbiased parameter estimation.

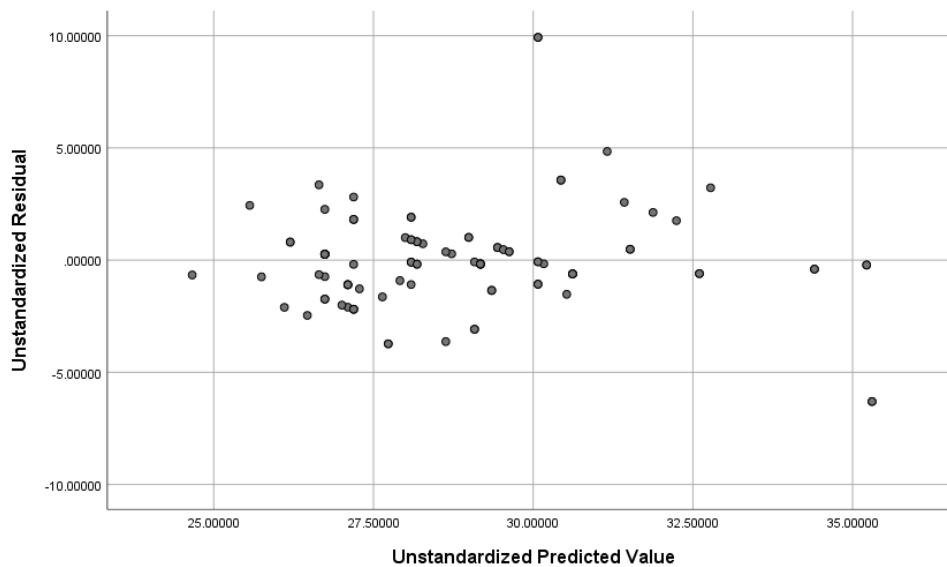


Figure 2: Scatterplot of Predicted Values and Residuals

Source: Processed Data, 2025

Multicollinearity Test

The purpose of the multicollinearity test was to assess whether the independent variables in the regression model are highly correlated with each other. Severe multicollinearity may cause unstable regression coefficients and hinder proper interpretation (Gujarati & Porter, 2009). The test was conducted by observing Tolerance and Variance Inflation Factor (VIF) values. Results showed that both Green Marketing and Brand Awareness had Tolerance values of 0.603, which is above the minimum threshold of 0.10, and VIF values of 1.659, which are well below the critical value of 10. These findings indicate no multicollinearity issues, confirming that both independent variables provide unique contributions in explaining purchase intention.

Table 3. Result of Multicollinearity Test

Variable	VIF	Tolerance
Service Quality	1.659	0.603
Product Quality	1.659	0.603

Source : Processed Data, 2025

Multiple Linear Regression Analysis

Multiple linear regression analysis was performed to examine the effects of Green Marketing (X1) and Brand Awareness (X2) on Purchase Intention (Y). The results showed a correlation coefficient (R) of 0.705, indicating a strong relationship between the independent and dependent variables. The R Square (R^2) value of 0.497 suggests that 49.7% of the variation in purchase intention can be explained by Green Marketing and Brand Awareness together, while the remaining 50.3% is influenced by other factors not included in this study, such as pricing, product quality, promotional activities, or external conditions. The Adjusted R Square of 0.487 confirms that the model remains reliable even after adjusting for the number of independent variables. Overall, the regression model demonstrates sufficient explanatory power for predicting purchase intention.

Table 4. Result of Correlation and Coefficient of Determination

Model	R	R Square	Adjusted R Square
1	0.705	0.497	0.487

Source : Processed Data, 2025

F-test (Simultaneous Test)

The findings indicate that the computed F value is 48.012 with a significance level of 0.000 (<0.05), confirming that Green Marketing and Brand Awareness jointly have a significant impact on Purchase Intention. Therefore, the multiple regression model is valid for explaining the relationships among the studied variables. Overall, these findings highlight that both independent variables contribute significantly not only individually but also collectively to shaping purchase intention.

Table 5. Result of ANOVA Test (F-Test)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	522.598	2	261.299	48.012	0
Residual	527.912	97	5.422		
Total	1050.510	99			

Source : Processed Data, 2025

t-test (Partial Test)

The t-test was performed to evaluate the effect of each independent variable on purchase intention individually.

- Green Marketing (X1): The regression coefficient was 0.542, with a t-value of 3.850 and a significance level of 0.000 (<0.05). This indicates that green marketing has a positive and significant effect on purchase intention. In other words, improvements in green marketing practices lead to higher purchase intention among respondents.
- Brand Awareness (X2): The regression coefficient was 0.450, with a t-value of 4.568 and a significance level of 0.000 (<0.05). This also demonstrates a positive and significant effect, suggesting that higher levels of brand awareness correspond to stronger purchase intentions for eco-friendly cosmetics.

These results reveal that both independent variables significantly contribute to purchase intention, with green marketing having a slightly greater effect compared to brand awareness.

Table 6. Result of t-test

	Model	t	Sig.
1	(Constant)	0.273	0.786
	Service Quality	3.850	0.000
	Product Quality	4.568	0.000

Source : Processed Data, 2025

Regression Equation

Based on the regression analysis, the estimated equation is:

$$Y = 0.845 + 0.542X_1 + 0.450X_2$$

Where:

Y = Purchase Intention

X1 = Green Marketing

X2 = Brand Awareness

0.845 = Constant, representing the baseline purchase intention when both independent variables are absent.

0.542 = Regression coefficient for green marketing, indicating that a one-unit increase in green marketing enhances purchase intention by 0.542 units.

0.450 = Regression coefficient for brand awareness, indicating that a one-unit increase in brand awareness increases purchase intention by 0.450 units.

This equation confirms that both green marketing and brand awareness positively influence purchase intention, with green marketing exerting a slightly more dominant effect than brand awareness.

Table 7. Regression Coefficients

	Model	Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	0.845	3.097
	Service Quality	0.542	0.141
	Product Quality	0.450	0.099

Source : Processed Data, 2025

Discussion

Green Marketing and Purchase Intention

The results reveal that Green Marketing has a positive and significant influence on purchase intention. This suggests that the more effectively eco-friendly cosmetic companies implement environmentally conscious marketing strategies, the greater the purchase intention among Generation Z consumers. Typical green marketing practices include using natural ingredients,

adopting eco-friendly packaging, minimizing production waste, and promoting sustainability-focused communications (Papadas et al., 2019).

For Generation Z, sustainability is a key factor shaping their buying behavior. Compared to previous generations, they are more environmentally aware and show heightened concern for issues such as climate change, sustainable practices, and ethical consumption (Francis & Hoefel, 2018). Consequently, green marketing not only strengthens a company's positive image but also directly encourages purchase intention by resonating with consumer values.

These results align with Nguyen et al. (2022), who found that young consumers in Vietnam preferred eco-friendly cosmetic products when green marketing strategies were clearly communicated. Similarly, Joshi & Rahman (2019) emphasized that green marketing helps reduce the attitude-behavior gap the discrepancy between positive environmental attitudes and actual eco-friendly purchasing behavior. Therefore, green marketing is a key determinant influencing purchase intention for eco-friendly cosmetics among Gen Z.

Brand Awareness and Purchase Intention

The study also found that Brand Awareness positively and significantly affects purchase intention. As consumers' familiarity with an eco-friendly cosmetic brand increases, so does their likelihood of purchasing its products. Brand awareness represents consumers' capacity to identify and remember a brand in different buying contexts (Keller, 2013).

In the eco-friendly cosmetics context, brand awareness plays a critical role. Such products are often perceived as relatively new, more expensive than conventional alternatives, and limited in availability. Strong brand awareness reduces consumer uncertainty, enhances trust in environmental claims, and reinforces perceptions of product quality (Esmaeilpour & Barjoei, 2016).

These findings are consistent with Baltaci et al. (2024), who showed that brand awareness significantly influences purchase intention for eco-friendly personal care products. Similarly, Utami et al. (2023) highlighted that strong brand awareness strengthens consumer trust in green cosmetic products in Indonesia. Thus, brand awareness functions not only as brand recall but also as a bridge to reassure Gen Z consumers that such products are worth purchasing.

The Simultaneous Effect of Green Marketing and Brand Awareness on Purchase Intention

Collectively, the findings show that Green Marketing and Brand Awareness have a significant joint effect on purchase intention, with a coefficient of determination (R^2) of 0.497. This means that approximately 49.7% of the variation in purchase intention can be attributed to the combined influence of these two factors. It highlights that companies cannot rely solely on green marketing strategies but must also build strong brand awareness to shape Gen Z consumers' purchase intentions.

This finding supports the argument that enhancing purchase intention requires a dual approach. Green marketing fosters positive consumer attitudes toward products, while brand awareness strengthens consumer confidence and trust to proceed with purchases. Both variables complement each other in driving purchase decisions, especially among Gen Z, who tend to be more critical and selective.

This conclusion aligns with Paul et al. (2016), who emphasized the importance of combining environmental values with brand strength to bridge the gap between attitudes and

purchasing behavior. Similarly, Hudayah et al. (2023) found that integrating green marketing with branding strategies strengthens purchase intention among young consumers.

5. Conclusions

This study concludes that Green Marketing and Brand Awareness each have a positive and significant effect on the purchase intention of eco-friendly cosmetics among Generation Z, both individually and jointly. Green marketing proves to be an important factor driving purchase intention through environmentally friendly practices such as the use of natural ingredients, sustainable packaging, and environmentally conscious communication. Meanwhile, brand awareness strengthens consumer confidence in the brand, increasing trust and purchase likelihood. Together, these two factors explain nearly half of the variance in purchase intention, underscoring that combining green marketing strategies with strong brand awareness is an effective approach to attract Gen Z consumers toward eco-friendly cosmetics.

Based on these findings, eco-friendly cosmetic companies are advised to enhance their green marketing strategies through transparent information, continuous product innovation, and digital campaigns emphasizing sustainability values. Additionally, companies should strengthen brand awareness through consistent promotion, collaborations with environmentally conscious influencers, and active participation in sustainability movements. Future research is recommended to include additional variables such as brand trust, perceived value, or environmental concern, to provide a more comprehensive understanding of the factors influencing purchase intention, particularly among the Gen Z consumer segment.

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