

Analysis of Factors Influencing *Purchase Intention* Toward *Green Cosmetic Products* Among **Generation Z** in **Indonesia**

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ABSTRACT

This study aims to analyze the factors influencing green purchase intention toward green cosmetic products among Generation Z in Indonesia. The variables examined in this study include environmental knowledge, attitude, subjective norm, and perceived behavioral control. This research employed a quantitative approach by collecting data through questionnaires distributed to Generation Z respondents in Indonesia who had purchased and used green cosmetic products. The data were analyzed using the Structural Equation Modeling (SEM) method using AMOS Graphic 23 and SPSS 27 software. The results indicate that environmental knowledge, attitude, subjective norm, and perceived behavioral control positively influence green purchase intention. These findings highlight the importance of environmental awareness, positive attitudes toward environmentally friendly products, and social influence in increasing Generation Z's intention to purchase green cosmetic products in Indonesia.

Keywords: *Green Cosmetic, Purchase Intention, Environmental Concern, Generation Z*

1. INTRODUCTION

The global cosmetics industry has experienced significant growth in recent years. This growth has been driven by increasing public awareness of self-care, skin health, and environmental sustainability. Consumers no longer consider only the quality of cosmetic products, but also the environmental impact of raw materials, production processes, and packaging. This condition has encouraged the emergence of the green cosmetic product concept as a form of innovation in the beauty industry that prioritizes the use of natural, environmentally friendly materials and supports the concept of sustainability. The development of green cosmetics in Indonesia continues to increase along with the shift in consumer behavior toward green consumer behavior. Consumers are increasingly considering product safety, natural ingredient content, and environmental impact before making a purchase. In addition, cosmetic companies have begun implementing green marketing strategies to increase consumer interest in environmentally friendly products.

Generation Z was selected as the object of this research because this generation is an active group of social media users with a high level of concern for environmental issues. Generation Z is also more open to information regarding green lifestyle and sustainability through digital platforms such as TikTok, Instagram, and YouTube. According to We Are Social & Meltwater (2024), Generation Z is the most active group of social media users in Indonesia, making it easier for them to obtain education about environmentally friendly products.

Although public awareness of the environment has begun to increase, green purchase intention toward green cosmetic products in Indonesia is still relatively low. This is caused by several factors, such as a lack of consumer knowledge regarding environmentally friendly products, relatively higher product prices, and the practice of greenwashing, which makes consumers more doubtful about a product's environmentally friendly claims.

This research is motivated by a research gap identified from previous studies. Fenta et al. (2024) state that subjective norm has a positive and significant effect on green purchase intention. However, a different finding is shown by Teixeira et al. (2021), who state that subjective norm has no significant effect on green purchase intention.

Research by Fenta et al. (2024) states that perceived behavioral control has a positive and significant effect on green purchase intention. However, a different result is shown by Teixeira et al. (2021), who state that perceived behavioral control has no effect on green purchase intention.

1.1. H1: Environmental Knowledge has a positive effect on Attitude

According to Mostafa (2006), environmental knowledge is the level of consumer understanding regarding environmental issues and the impact of product use on environmental sustainability. Consumers with high environmental knowledge tend to better understand the benefits of using environmentally friendly products, enabling them to form a positive attitude toward green products. Research by Rahayu et al. (2024) shows that environmental knowledge influences consumer attitudes toward the use of environmentally friendly products. In addition, Simanjuntak et al. (2023) also state that environmental knowledge can increase consumers' concern for and positive evaluation of green products. Fenta et al. (2024) also found that environmental knowledge has a positive effect on consumer attitudes toward green products.

1.2. H2: Subjective Norm has a positive effect on Green Purchase Intention

According to Ajzen (1991), subjective norm is the perceived social pressure that an individual feels to perform or not perform a certain behavior. In the context of green cosmetic products, support from family, friends, and the social environment can influence consumers' intention to purchase environmentally friendly products. Gupta (2021) found that subjective norm has a positive effect on green purchase intention. Research by Lius & Salim (2024) also shows that subjective norm influences Generation Z consumers' purchase intention toward green cosmetics. In addition, Teixeira et al. (2021) state that social support can increase consumers' tendency to purchase environmentally friendly products.

1.3. H3: Perceived Behavioral Control has a positive effect on Green Purchase Intention

According to Ajzen (1991), perceived behavioral control is an individual's perception of the ease or difficulty of performing a particular behavior. In purchasing green cosmetics, consumers will have a higher purchase intention if they feel they have the ability, opportunity, and resources to buy the product. Gupta (2021) states that perceived behavioral control has a positive effect on green purchase intention. Research by Fenta et al. (2024) also shows that the higher the perceived behavioral control felt by consumers, the higher their intention to purchase environmentally friendly products. In addition, Widiyanti & Rachmawati (2023) found that perceived behavioral control is one of the important factors influencing purchase intention toward green cosmetic products.

1.4. H4: Attitude has a positive effect on Green Purchase Intention

According to Ajzen (1991), attitude is an individual's positive or negative evaluation of a behavior. A positive attitude toward environmentally friendly products can increase consumers' tendency to purchase such products. Chen & Chang (2012) state that consumers' positive attitude toward green products can increase green purchase intention. Research by Marbun et al. (2024) also shows that consumer attitude toward environmentally friendly products affects purchase intention toward green cosmetic products. In addition, Andika et al. (2023) found that attitude is one of the important factors shaping Generation Z's purchase intention toward environmentally friendly cosmetic products.

2. RESEARCH METHODS

This research is a basic causal research aimed at examining the cause-and-effect relationships in the purchase decisions of green cosmetic products among Generation Z in Indonesia. This research is based on the Theory of Planned Behavior developed by Ajzen (1991), which explains that an individual's behavior is influenced by attitude, subjective norm, and perceived behavioral control. In addition, this research also adds environmental knowledge as a factor influencing consumer attitudes toward environmentally friendly products.

This research examines the influence of exogenous variables, consisting of environmental knowledge, subjective norm, and perceived behavioral control, on the endogenous variables, namely attitude and green purchase intention. This research uses a quantitative approach with primary data obtained through questionnaires distributed to respondents who meet the research criteria, namely Generation Z who have purchased and used green cosmetic products within the last 6 months.

This study targets Generation Z consumers domiciled in Indonesia with a minimum education level of senior high school or equivalent and who have knowledge of green cosmetic products. This approach was chosen so that the data obtained would be relevant to Generation Z consumer behavior in purchase decisions regarding environmentally friendly products, particularly in the sustainable cosmetics industry.

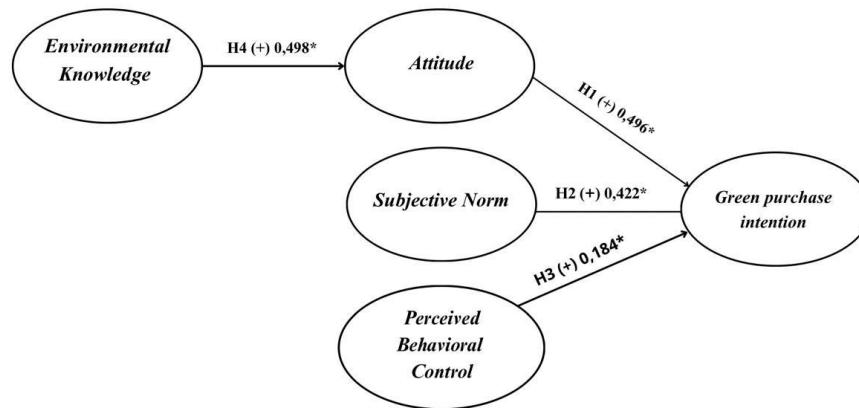


Figure 1 Research Model. Source: Fenta et al. (2024)

3. RESULTS AND DISCUSSION

In the initial stage of the research, a validity test was conducted on the measurement instruments used. This validity test was carried out using the Pearson correlation method. An indicator can be considered valid if it meets the criteria of Pearson correlation ≥ 0.3 and a significance value ≤ 0.05 (Hair et al., 2014). Based on the validity test results for 30 respondents, all indicators were declared valid as they met these criteria. The following are the detailed validity test results for each construct: Attitude meets the validity requirement with a Pearson correlation value > 0.5 ; Subjective Norm meets the validity requirement with a Pearson correlation value > 0.8 ; Perceived Behavioral Control meets the validity requirement with a Pearson correlation value > 0.5 ; Environmental Knowledge meets the validity requirement with a Pearson correlation value > 0.7 ; and Green Purchase Intention meets the validity requirement with a Pearson correlation value > 0.6 .

After conducting validity and reliability tests on 30 respondents who were declared valid and reliable, the next step was to distribute the questionnaire to collect the required data. A total of 150 respondent data were obtained through the questionnaire, all of which met the research criteria. The measurement model was then tested using Confirmatory Factor Analysis (CFA) with AMOS Graphics 23 software. The adequacy of the measurement model was evaluated based on the Goodness of Fit Index (GoF). The following criteria were used to assess model fit, in accordance with established standards: (1) CMIN/DF ≤ 3.00 , (2) RMSEA ≤ 0.08 , (3) GFI, CFI, and TLI: values between 0.8 and 0.9 indicate marginal fit, while values above 0.9 indicate good fit.

Table 1. Measurement Goodness of Fit Model CFA Stage 1

No	Goodness of Fit Index	Criteria	Result	Remarks
1.	CMIN/DF	≤ 3.00	1.258	Good Fit
2.	RMSEA	≤ 0.08	0.042	Good Fit
3.	GFI		0.826	Marginal Fit
4.	CFI	Marginal fit (0.8–0.9), Good fit (≥ 0.9)	0.931	Good Fit
5.	TLI		0.924	Good Fit

Based on the table above, the results of the measurement Goodness of Fit Model test from CFA stage 1 met the criteria. The CMIN/DF (Chi-Square) value was 1.258, which falls into the good fit category since it is ≤ 3.00 . Next, the RMSEA (Root Mean Square Error of Approximation) value was 0.042, which falls into the good fit category since it is ≤ 0.08 . The GFI (Goodness of Fit Index) value was 0.826, which falls into the marginal fit category since it lies between 0.8 and 0.9. The CFI (Comparative Fit Index) value was 0.931, which falls into the good fit category since it is ≥ 0.9 . The TLI (Tucker Lewis Index) value was 0.924, which also falls into the good fit category since it is ≥ 0.9 .

Table 2. Measurement Model Stage 1

Variable	Indicator	Standardized Loading	Remarks
	ATT 1	0.840	Valid & Reliable
	ATT 2	0.791	Valid & Reliable
ATT	ATT 3	0.598	Valid & Reliable
	ATT 4	0.613	Valid & Reliable
	ATT 5	0.114	Not Supported
	SN 1	0.658	Valid & Reliable
	SN 2	0.108	Not Supported
	SN 3	0.725	Valid & Reliable
SN	SN 4	0.771	Valid & Reliable
	SN 5	0.738	Valid & Reliable
	SN 6	0.678	Valid & Reliable
	SN 7	0.667	Valid & Reliable
	PBC 1	0.573	Valid & Reliable
	PBC 2	0.713	Valid & Reliable
	PBC 3	0.644	Valid & Reliable
PBC	PBC 4	0.511	Valid & Reliable
	PBC 5	0.632	Valid & Reliable
	PBC 6	0.575	Valid & Reliable
	PBC 7	0.454	Not Supported
	EK 1	0.848	Valid & Reliable
	EK 2	0.855	Valid & Reliable
EK	EK 3	0.514	Valid & Reliable
	EK 4	0.211	Not Supported
	EK 5	0.532	Valid & Reliable
	GPI 1	0.670	Valid & Reliable
	GPI 2	0.772	Valid & Reliable
GPI	GPI 3	0.431	Not Supported
	GPI 4	0.565	Valid & Reliable
	GPI 5	0.769	Valid & Reliable
	GPI 6	0.644	Valid & Reliable

Based on Table 2, the validity and reliability test results show the Average Variance Extracted (AVE) and Construct Reliability (CR) values. A variable indicator can be declared valid if it has an AVE value ≥ 0.5 , while a variable indicator can be declared reliable if it has a CR value ≥ 0.7 . A variable with an AVE value ≤ 0.5 may be caused by standardized loading (λ) values that do not meet the criteria, resulting in an AVE value ≤ 0.5 . As shown in the table above, almost all AVE and CR results met the criteria; however, there were several indicators with standardized loading (λ) values below 0.5, namely ATT 5 (0.114), SN 2 (0.108), PBC 7 (0.454), EK 4 (0.211), and GPI 3 (0.431), so these indicators were removed from this test. After removing indicators ATT 5, SN 2, PBC 7, EK 4, and GPI 3, the data was reprocessed to retest the validity and reliability of the measurement model.

Table 3. Measurement Goodness of Fit Model CFA Stage 2

No	Goodness of Fit Index	Criteria	Result	Remarks
1.	CMIN/DF	≤ 3.00	1.329	Good Fit
2.	RMSEA	≤ 0.08	0.047	Good Fit
3.	GFI		0.849	Marginal Fit
4.	CFI	Marginal fit (0.8–0.9), Good fit (≥ 0.9)	0.938	Good Fit
5.	TLI		0.930	Good Fit

Based on Table 3, the results of the measurement Goodness of Fit Model test from CFA stage 2 met the criteria. The CMIN/DF (Chi-Square) value was 1.329, which falls into the good fit category since it is ≤ 3.00 . Next, the RMSEA value was 0.047, which falls into the good fit category since it is ≤ 0.08 . The GFI value was 0.849, which falls into the marginal fit category since it lies between 0.8 and 0.9. The CFI value was 0.938, which falls into the good fit category since it is ≥ 0.9 . The TLI value was 0.930, which also falls into the good fit category since it is ≥ 0.9 .

Table 4. Measurement Model Stage 2

Variable	Indicator	Standardized Loading	AVE	CR	Remarks
ATT	ATT 1	0.846	0.516	0.720	Valid & Reliable
	ATT 2	0.789			Valid & Reliable
	ATT 3	0.597			Valid & Reliable
	ATT 4	0.611			Valid & Reliable
SN	SN 1	0.656	0.520	0.856	Valid & Reliable
	SN 3	0.727			Valid & Reliable
	SN 4	0.772			Valid & Reliable
	SN 5	0.741			Valid & Reliable
	SN 6	0.676			Valid & Reliable
	SN 7	0.664			Valid & Reliable
PBC	PBC 1	0.552	0.501	0.778	Valid & Reliable
	PBC 2	0.691			Valid & Reliable
	PBC 3	0.652			Valid & Reliable
	PBC 4	0.533			Valid & Reliable
	PBC 5	0.638			Valid & Reliable
	PBC 6	0.575			Valid & Reliable
EK	EK 1	0.849	0.518	0.789	Valid & Reliable
	EK 2	0.856			Valid & Reliable
	EK 3	0.510			Valid & Reliable
	EK 5	0.530			Valid & Reliable
GPI	GPI 1	0.661	0.527	0.857	Valid & Reliable
	GPI 2	0.762			Valid & Reliable
	GPI 4	0.557			Valid & Reliable
	GPI 5	0.777			Valid & Reliable
	GPI 6	0.638			Valid & Reliable

Based on Table 4, the validity and reliability test results show the Average Variance Extracted (AVE) and Construct Reliability (CR) values for the second stage, after one indicator from the first stage was removed for each

construct—namely ATT 5, SN 2, PBC 7, EK 4, and GPI 3—due to standardized loading values below 0.5, requiring retesting. A variable indicator can be declared valid if it has an AVE value ≥ 0.5 , while a variable indicator can be declared reliable if it has a CR value ≥ 0.7 . As shown in the table above, the AVE and CR results all met the criteria, allowing the analysis to proceed to the next stage, namely testing the structural model.

Table 5. Structural Model SEM

Goodness of Fit Index	Criteria	Result	Remarks
CMIN/DF	≤ 3.00	1.455	Good Fit
RMSEA	≤ 0.08	0.055	Good Fit
GFI		0.836	Marginal Fit
CFI	Marginal Fit (0.8–0.9), Good Fit (≥ 0.9)	0.914	Good Fit
TLI		0.904	Good Fit

Table 6. Hypothesis Testing Results

Hypothesis	Path	Standardized Estimate	C.R.	p-value	Remarks
H1 (+)	EK $\rightarrow$ ATT	0.496	4.374	***	Hypothesis Supported
H2 (+)	SN $\rightarrow$ GPI	0.422	3.781	***	Hypothesis Supported
H3 (+)	PBC $\rightarrow$ GPI	0.184	2.130	0.033	Hypothesis Supported
H4 (+)	ATT $\rightarrow$ GPI	0.498	4.701	***	Hypothesis Supported

Based on Table 6, it can be seen that all 4 hypotheses were declared supported. The first hypothesis regarding the effect of environmental knowledge on attitude shows a C.R. value of 4.374, which is above the minimum threshold of 1.645, with a p-value of *** indicating a significant positive effect. The second hypothesis regarding the effect of subjective norm on green purchase intention is also declared supported, with a C.R. value of 3.781 and a p-value of ***, indicating a significant result. Furthermore, the third hypothesis regarding the effect of perceived behavioral control on green purchase intention is declared supported, as the C.R. value of 2.130 meets the criterion of ≥ 1.645 , with a p-value of 0.033, which is smaller than 0.1. The fourth hypothesis regarding the effect of attitude on green purchase intention is also declared supported, with a C.R. value of 4.701 and a p-value of ***, indicating a significant positive effect. All variables in this study were proven to have a positive effect on green purchase intention toward green cosmetic products among Generation Z in Indonesia.

4. CONCLUSION

Based on the testing results, it can be concluded that all hypotheses in this research were declared supported. The testing was carried out through data processing using AMOS Graphic 23 software with the Structural Equation Modeling (SEM) method. Based on these results, hypotheses H1, H2, H3, and H4 showed supported outcomes:

- Environmental Knowledge has a positive effect on Attitude toward the purchase of green cosmetic products in Indonesia.
- Subjective Norm has a positive effect on Green Purchase Intention toward the purchase of green cosmetic products in Indonesia.
- Perceived Behavioral Control has a positive effect on Green Purchase Intention toward the purchase of green cosmetic products in Indonesia.
- Attitude has a positive effect on Green Purchase Intention toward the purchase of green cosmetic products in Indonesia.

The research results also show that Environmental Knowledge has a positive effect on Attitude. This finding indicates that the higher consumers' knowledge of environmental and sustainability issues, the more positive their attitude toward the use of green cosmetic products. Therefore, companies need to enhance education on the benefits of environmentally friendly products through social media, digital campaigns, and transparent product information in order to raise Generation Z consumers' environmental awareness.

The research results also show that Subjective Norm has a positive effect on Green Purchase Intention. This finding indicates that the social environment, such as family, friends, and social media, plays an important role in shaping consumers' purchase intention toward green cosmetic products. Accordingly, companies can leverage digital marketing strategies, electronic word of mouth, and collaboration with influencers to increase Generation Z consumers' purchase intention toward environmentally friendly products.

In addition, Perceived Behavioral Control was also proven to have a positive effect on Green Purchase Intention. This indicates that ease of product access, product availability, financial capability, and ease of obtaining information can increase consumers' intention to purchase green cosmetics. Therefore, companies need to ensure that products are easily obtainable both through offline stores and online platforms so that consumers find it easier to make purchases.

Based on the research results, it is also known that the Attitude variable has the largest influence on Green Purchase Intention toward green cosmetic products in Indonesia. Therefore, green cosmetic businesses need to enhance consumers' positive perceptions through product quality, ingredient safety, environmental benefits, and product innovation that supports the concept of sustainability.

This research still has room for development in future studies. Future research could broaden the research object to other types of environmentally friendly products, such as green skincare or sustainable lifestyle products. In addition, future research could also add other variables, such as green trust, environmental concern, and health consciousness, to obtain more comprehensive research results regarding the purchasing behavior of environmentally friendly products among Generation Z.

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