Determinants of Green Purchase Intentions for Eco-friendly Skincare Products

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Abstract: Rising public awareness of various environmental issues has significantly altered consumer behavior, leading to a greater preferencefor eco-friendly products. This study aims to examine and evaluate the impact of environmental concern, altruistic value orientation, and perceived behavioral control on green purchase intention, with attitude as a mediating variable. The subjects of this research are individuals aware of environmental issues and the N'PURE skincare product line, residing in Jakarta, Bandung, Semarang, Surabaya, Yogyakarta, and Tangerang. A total of 153 respondents participated in this study. Purposive sampling was employed for sample selection, and the analysis was conducted usingstructural equation modeling (SEM) with the SmartPLS analytical tool. The study findings reveal that environmental concern, altruistic value orientation, and perceived behavioral control play significant and substantial roles in shaping consumer attitude. Both environmental concern and altruistic value orientation contribute positively, albeit modestly, to the intention to purchase eco- friendly products. Conversely, perceived behavioral control demonstrates a strong and significant effect in determining consumers' intentions to buy green products. Additionally, attitude significantly influences the propensity of consumers to purchaseeco-friendly products. Consumer attitude fully mediates the impact of environmental concern on the intention to choose green products, as well as the effect of altruistic value orientation on this intention. Meanwhile, attitude serves as a partial mediator in the influence of perceived behavioral control on the intention to buy eco-friendly products. This study provides valuable theoretical and practical insights into consumer purchasing patterns regarding eco-friendly products.

Introduction

In recent decades, there has been a significant increase in anthropogenic activities, which have had serious impacts on environmental sustainability. The most pressing environmental issue today is global warming. Global warming leads to extreme climate changes (Goreau and Hayes, 2021), and poses serious threats to both terrestrial and marine ecosystems (Chen, 2021). Given the complexity and escalation of these impacts, mitigating climate change has become an urgent imperative for the well-being of the Earth and the global community.

One of the primary causes of global warming is industrial activity. Although industries significantly contribute to the economy, their presence does not always have positive effects on society and the environment. Industries heavily rely on natural resources and frequently cause environmental pollution (Sofianti et al., 2023). The natural environment can no longer cope with the byproducts of industrial production due to the depletion of natural resources and the limited capacity to absorb waste and emissions. According to Jayana, Maharani, and Sudarto (2024), despite advancements in technology and science, environmental issues are becoming increasingly critical. The expansion of infrastructure and industry often results in environmental degradation, leading to pollution and adverse effects on human health.

The beauty industry, particularly skincare products, is a continuously growing and evolving sector. According to data from McKinsey, the beauty industry generates an annual revenue of approximately $500 billion (Hana, 2020). In Indonesia, the beauty industry has shown consistent annual growth. Data from Statista in 2022 indicates that the beauty and personal care industry generated a revenue of $7.23 billion, or approximately Rp111.83 trillion (with an exchange rate of $1 equivalent to Rp15,467.5). Projections indicate that this sector will continue to expand with an average annual growth rate of 5.81% (CAGR) from 2022 to 2027 (Annisa, 2022).

The high demand for skincare products in both global and local markets has led to an increase in packaging production, most of which is made of plastic. As more skincare products are sold and used, there is a corresponding rise in plastic waste. The environmental impact is significant because plastic tends to decompose slowly, exacerbating the global plastic waste problem. According to the "Cosmetic Packaging Market: Growth, Trends, and Forecasts (2020-2025)", most cosmetic containers are made from plastic. This information is supported by a report from the Minderoo Foundation, which reveals that the global cosmetics sector produces over 120 billion packaging units annually, the majority of which are non-recyclable. The report also warns that without measures to address plastic waste, the amount of plastic entering the oceans is expected to triple by 2040 (Kompas.com, 2021).

Awareness of sustainable living has become increasingly widespread and is now recognized as an integral part of daily life. Conventional skincare products, widely available, can negatively contribute to climate change due to their plastic packaging and the inclusion of harsh inorganic chemicals. As an alternative, eco-friendly skincare products offer distinct

advantages that appeal to certain segments of society, as they are made from sustainably sourced natural ingredients (Mamun et al., 2020). The use of green products not only benefits health but also has a positive impact on the environment. The awareness of the importance of health and the environment, coupled with increasing consumer concern over the risks of chemicals, has sparked interest in a healthy lifestyle and the use of eco-friendly skincare products (Sharma & Lawande, 2022). The principle of sustainability can enhance brand reputation, attract environmentally and socially conscious customers, and positively impact both local and global communities (Imaningsih, Nawangsari, Saratian, & Wibowo, 2022).

N'PURE is a local skincare brand that emphasizes the concept of green skincare. Established in 2017, N'PURE has a strong commitment to environmental sustainability. Despite offering eco-friendly skincare products, its sales have not yet reached a satisfactory level compared to similar, more well-known brands, both locally and globally. This indicates that N'PURE has not garnered sufficient market attention, whether through conventional sales channels or online platforms such as e-commerce. Additionally, a large portion of the public remains unaware of the benefits of using eco-friendly skincare products, with some even believing that these products might worsen their skin condition. The adoption of eco-friendly skincare products remains low, as consumers often neglect environmental well-being and show limited interest in their own personal well-being (Chin et al., 2018).

Based on previous research, several variables such as Environmental Concern, Attitude, Subjective Norm, Perceived Behavioral Control (PBC), and Availability have been investigated for their impact on purchase intention for eco-friendly skincare products. However, there is a notable research gap concerning these variables. Studies by Bui, Nguyen, Nguyen, and Tran (2021); Duong (2022); Schrank et al. (2023); and Sharma and Lawande (2023) provide empirical evidence that PBC significantly and positively influences green purchase intention. In contrast, research by Magano, u-Yong-Oliveira, Ferreira, and Leite (2022) and Mamun et al. (2020) suggests that PBC has an insignificant effect on green purchase intention. Additionally, Djokic et al. (2023) report a negative impact of PBC on green purchase intention. Furthermore, there is a lack of research examining the role of altruistic values orientation in the context of eco-friendly skincare products. This study aims to address these gaps by exploring the impact of altruistic values orientation along with the aforementioned variables, thereby providing a more comprehensive understanding of the factors influencing purchase intention for eco-friendly skincare products.

This study examines the elements influencing consumer willingness to purchase eco-friendly skincare products offered by N'PURE, using attitude as a mediator. This study is significant as it will help to understand the factors that predict the intention to purchase sustainable skincare products, thereby promoting the use of beauty products oriented towards sustainability. Ultimately, this will reduce the negative environmental impact both locally and globally.

Literature Review and Hypothesis Development

Value-Attitude-Behavior

The hypotheses in this study are constructed based on the value-attitude-behavior model proposed by Homer and Kahle (1988). Within the framework of this theory, values influence attitudes, and these attitudes in turn affect behaviors. In the context of sustainable behavior, Stern and Dietz (1994) noted that attitudes towards environmental issues are derived from an individual's set of overarching values. These values encompass egoistic (self-oriented), social-altruistic (others-oriented), and biospheric (environment-oriented) values (Stern & Dietz, 1994). The model suggests that values fundamentally shape attitudes, which then lead to specific behaviors. According to Homer and Kahle (1988), based on social adaptation theory, values, as a composite of social cognition, enable individuals to adapt to their environment, guiding them on how to act in particular situations. Additionally, the norm activation theory posits that individuals act in certain ways to help others, consistent with their internalized values (Schwartz, 1977). Therefore, when an individual's internal values are activated, they form a response to an object or concept and subsequently express it through actions (Shin, Moon, Jung & Savert, 2017).

Value Belief Norm Theory

The Value-Belief-Norm (VBN) theory, initially introduced by Stern et al. (1999), links individual values, beliefs, and norms in a sequence that affects behavior (Imaningsih, Tjiptoherijanto, Heruwasto, & Aruan, 2019). This theory posits that behavior is guided by personal norms derived from beliefs, which in turn are rooted in personal values. The VBN framework is frequently applied to explore the relationships between individual values, beliefs, norms, and environmental behaviors (Wang, Nie, Jeronen, Xu, & Chen, 2023). In the environmental context, the VBN theory integrates components from Value Theory (Fornara et al., 2020; Whitley et al., 2018) and the Norm Activation Model (Arkorful et al., 2022; Zhang et al., 2018). It was designed to extend the norm activation model to better understand and promote pro-environmental intentions and actions. This theory specifically targets environmental behavior analysis and includes core concepts like values and ecological viewpoints related to environmental issues (Van der Werff & Steg, 2016).

Environmental Concern

Environmental concern refers to the level of awareness individuals have regarding environmental issues and their support for initiatives aimed at addressing these problems (Dunlap & Jones, 2002). According to Panopoulos et al., (2023), environmental concern is an attitude—an affective or cognitive evaluation of an issue—related to environmental protection and problems. It significantly influences preferences and behaviors that support environmental sustainability. Individuals with environmental concern believe that ecological conditions are deteriorating and must be addressed through environmentally friendly behaviors, prompting them to adopt practices that support environmental preservation

(Mustafa et al., 2023; Yen & Hoang, 2023). Environmental concern plays a crucial role as a primary driver for consumers in changing their consumption habits and transitioning to more eco-friendly consumption patterns (Schrank et al., 2023).

Altruistic Values Orientation

An altruistic values orientation encompasses self-transcendence values that include concern for others and living beings within one's self-concept, serving as a crucial factor in promoting ecological behavior (De Dominicis, Schultz, & Bonaiuto, 2017). Environmental concern arising from altruistic attitudes often triggers actions that support environmental preservation (Verma et al., 2019). Individuals who experience feelings of guilt are more likely to engage in altruistic behavior. Similar to pro-social behavior in general, pro-environmental behavior fundamentally embodies characteristics of altruism and can be interpreted as such (Mukherjee & Chandra, 2022).

Perceived Behavioral Control

Perceived behavioral control (PBC) is defined as an individual's perception of how easy or difficult it is to perform a particular behavior (Hagger, Cheung, Ajzen, & Hamilton, 2022). PBC is a key component in the theory of planned behavior, affecting individual actions. This theory posits that both intention and PBC influence an individual's behavior. PBC can be directly translated into the prediction of behavior execution and can indirectly influence actions through its impact on intentions (Hagger, Cheung, Ajzen, & Hamilton, 2022).

Attitude

According to Ajzen (1991), attitude refers to an individual's evaluation of whether a particular behavior is perceived as good or bad based on their viewpoint. Attitude also encompasses a person's subjective evaluation of a specific behavior. An individual's attitude towards a behavior will influence the extent of their desire or intention to engage in that behavior (Schrank et al., 2023). Solomon (2020) defines attitude as a lasting evaluation of a person, object, or issue. This includes assessments, emotional responses, and tendencies to act in ways that are beneficial or detrimental, relating to a matter, idea, or situation connected to consumption behavior. Attitude reflects consistent preferences and is influenced by factors such as cultural, social, personal, and psychological aspects (Kotler, Keller, & Chernev, 2022).

Green Purchase Intention

Intention is regarded as a primary driver of behavior and is thus considered the best predictor of behavior (Ajzen, 2022). Consumer sensitivity to environmental issues can play a crucial role in motivating them to choose sustainable products (Mamun et al., 2020). According to Zhuang, Luo, and Riaz (2021), consumer preference for purchasing products that support sustainability, with the goal of protecting or reducing negative environmental impacts, is referred to as green purchase intention. Sustainable purchase intention reflects the motivation and inclination of customers to select products that contribute to sustainability

and environmental protection (Yen & Mai, 2020). This intention serves as a parameter to gauge the extent to which consumers are willing or prepared to adopt options that support environmental sustainability (Kamalanon et al., 2022).

Research Framework

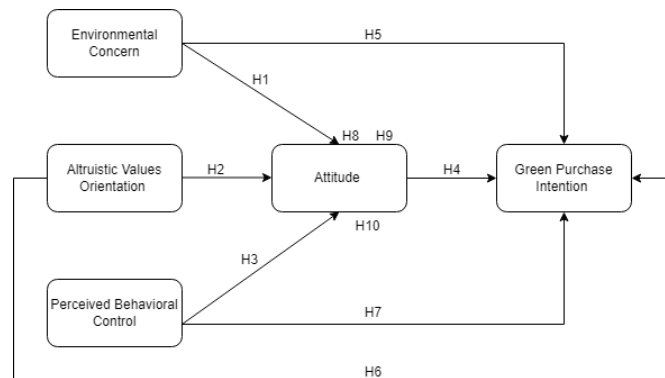The framework proposed in this study is detailed as follows:

Figure 1. Research Framework

Hypotheses:

H1: Environmental concern is strongly related to attitude.

H2: Altruistic values orientation is strongly related to attitude.

H3: Perceived behavioral control is strongly related to attitude.

H4: Attitude is strongly related to consumers' intention to purchase eco-friendly skincare products.

H5: Environmental concern is strongly related to consumers' intention to choose eco-friendly skincare products.

H6: Altruistic Values Orientation is strongly related to consumers' intention to choose eco-friendly skincare products.

H7: Perceived behavioral control is strongly related to consumers' intention to choose eco-friendly skincare products.

H8: Attitude serves as a mediator between environmental concern and consumers' intention to purchase eco-friendly skincare products.

H9: Attitude serves as a mediator between altruistic values orientation and consumers' intention to purchase eco-friendly skincare products.

H10: Attitude serves as a mediator between perceived behavioral control and consumers' intention to purchase eco-friendly skincare products.

Research Method

This study is causal-comparative research that explores the relationships between independent and dependent variables and is categorized as a quantitative study. Data collection is conducted through the use of questionnaires containing a series of statements that respondents are required to answer. The population under study consists of individuals with knowledge about N'PURE skincare products and an understanding of related environmental issues, residing in Jakarta, Tangerang, Bandung, Surabaya, Semarang, and Yogyakarta. Purposive sampling is employed in the sample selection due to the specific criteria used for sample selection (Malhotra, 2019). The criteria for sample selection are: (1) subjects must have knowledge about N'PURE skincare products, and (2) subjects must pass a test on environmental awareness. The sample size is calculated using the formula proposed by Hair (2021), determining that a minimum of 110 respondents is required. The influence of exogenous variables on endogenous variables is analyzed using structural equation modeling (SEM), supported by the SmartPLS 3.0 application.

Result and Discussion

Respondent Description

Based on the results obtained from the questionnaire distribution, there are 153 participants who meet the research criteria. Among these, 27% are male and 73% are female, indicating a predominance of females in environmentally friendly behaviors. The age group of 21 to 30 years dominates the study, comprising 42% of the sample. This suggests that consumers in this age range are more open to environmental issues and are more adept at using technology, including the internet, to seek information about eco-friendly skincare products. Additionally, 54% of the total 153 respondents hold a bachelor's degree. In terms of occupation, the study is predominantly comprised of private/government employees, making up 41% of the total respondents.

Measurement Model Analysis (Outer Model)

Convergent Validity. Convergent validity aims to assess whether the indicators or items in a study accurately represent the latent variable being measured. The evaluation of convergent validity for reflective indicators can be conducted by examining the loading factor values assigned to each construct. According to Hair (2021), in confirmatory research, it is recommended that factor loading values should be at least 0.7 or higher, while the average variance extracted (AVE) should exceed 0.5. The following presents the results of the convergent validity assessment:

Table 1: Output of Convergent Validity Analysis

Variable	Indicator	Outer Loading	Cut-off Value	AVE	Information
EnvironmentalConcern	EC1	0,853	0,7		Valid
	EC2	0,778	0,7	0,694	Valid
	EC3	0,865	0,7		Valid
Altruistic Values Orientation	AVO1	0,896	0,7	0,833	Valid
	AVO2	0,929	0,7		Valid
Perceived BehavioralControl	PBC1	0,79	0,7		Valid
	PBC2	0,801	0,7	0,623	Valid
	PBC3	0,773	0,7		Valid
	PBC4	0,794	0,7		Valid
	ATT1	0,792	0,7		Valid
	ATT2	0,838	0,7		Valid
Attitude	ATT3	0,8	0,7	0,68	Valid
	ATT4	0,829	0,7		Valid
	ATT5	0,862	0,7		Valid
Green Purchase Intention	GPI1	0,842	0,7		Valid
	GPI2	0,871	0,7	0,696	Valid
	GPI3	0,781	0,7		Valid
	GPI4	0,874	0,7		Valid
	GPI5	0,8	0,7		Valid

Source: Data processed using SmartPLS, 2024

Based on the results of the convergent validity test presented in Table 1 above, all indicators achieved Outer Loading values exceeding 0.7, and the Average Variance Extracted (AVE) values were greater than 0.50. It can be concluded that all constructs meet the required validity criteria

Construct Reliability. Reliability testing aims to determine the extent to which an instrument can accurately and consistently assess the measured construct. In Partial Least Squares (PLS), reliability can be evaluated using Cronbach's Alpha and Composite Reliability values. A variable is considered to have reliable indicators if the Composite Reliability value exceeds 0.7 and Cronbach's Alpha is greater than 0.6 (Hair et al., 2021). The following presents the results of the construct reliability evaluation:

Table 2: Output of Construct Reliability Evaluation

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Information
Environmental Concern	0,78	0,793	0,872	Reliable
Altruistic Values Orientation	0,8	0,819	0,909	Reliable
Perceived Behavioral Control	0,8	0,805	0,869	Reliable
Attitude	0,882	0,884	0,914	Reliable
Green Purchase Intention	0,89	0,894	0,92	Reliable

Source: Data processed using SmartPLS, 2024

Referring to Table 2 above, it can be observed that each variable in this study has a Composite Reliability value ranging from 0.869 to 0.914, while Cronbach's Alpha values range from 0.78 to 0.89. With Composite Reliability exceeding 0.7 and Cronbach's Alpha greater than 0.6 for each variable, it indicates that the indicators or survey items within each variable of this study are reliable.

Discriminant Validity. Discriminant validity aims to evaluate the extent to which a construct in the structural model is empirically distinct from other constructs (Hair et al., 2021). Discriminant validity can be assessed using two approaches: the Heterotrait-Monotrait (HTMT) Ratio and the Fornell-Larcker Criterion. The Fornell-Larcker Criterion method compares the square root of the Average Variance Extracted (AVE) for each construct with the correlations among constructs in the model (Henseler et al., 2016). Discriminant validity is considered satisfactory if the variance shared among constructs in the model does not exceed the AVE of each construct (Hair et al., 2021). The results of the Fornell-Larcker Criterion test are presented as follows:

Table 3: Results of the Fornell-Larcker Criterion Evaluation

	AVO	ATT	EC	GPI	PBC
AVO	0,912				
ATT	0,736	0,825			
EC	0,683	0,72	0,833		
GPI	0,656	0,799	0,62	0,834	

Source: Data processed using SmartPLS, 2024

Based on the data presented in Table 3, the Fornell-Larcker Criterion test reveals that the square root of the AVE values exceeds the correlations among the latent variables. Therefore, the tested model can be considered to have no issues with discriminant validity..

To evaluate discriminant validity, the final test in this study employs the Heterotrait-Monotrait (HTMT) ratio. Discriminant validity is considered problematic if HTMT values are

high. Henseler recommends a threshold of 0.90 for constructs that are conceptually very similar, and 0.85 for constructs that are conceptually different. HTMT values below 0.90 indicate that there are no issues with discriminant validity (Hair et al., 2021). The results of the Heterotrait-Monotrait Ratio (HTMT) measurement are as follows:

Table 4: Results of HTMT Evaluation

	AVO	ATT	EC	GPI	PBC
AVO					
ATT	0,869				
EC	0,849	0,859			
GPI	0,768	0,894	0,736		
PBC	0,771	0,841	0,696	0,847	

Source: Data processed using SmartPLS, 2024

Referring to Table 4, the HTMT values for each construct are below 0.9, indicating that each variable has a distinct meaning. Therefore, the constructs in the examined model meet the criteria for discriminant validity.

Inner Model Analysis

Inner model testing involves developing a model based on concepts and theories to evaluate interactions between independent and dependent variables. According to Hair et al. (2021), this testing is designed to predict the relationships between latent variables. The purpose of inner model analysis is to ensure that the structural model is robust and accurate.

Coefficient of Determination (R²). According to Henseler et al. (2015), the R^2 value is used to evaluate how well the regression model fits the existing data by measuring the proportion or percentage of total variance in the dependent variable that can be explained by the independent variables. This value ranges from 0 to 1, with values closer to 1 indicating better predictive capability. An R^2 value of 0.75 is considered to reflect high predictive strength, while a value of 0.50 indicates moderate predictive ability, and a value of 0.25 suggests weak prediction (Hair et al., 2021). The R^2 values obtained from the data analysis are as follows:

Table 5: Results of R² Evaluation

Variable	R-Square
Attitude	0,698
Green Purchase Intention	0,693

Source: Data processed using SmartPLS, 2024

Based on the data presented in Table 5, the R^2 values for the mediating and dependent variables are 0.698 and 0.693, respectively. This indicates that 69.8% of the variance in the Attitude variable and 69.3% of the variance in the Green Purchase Intention variable can be

explained by the variables Environmental Concern, Altruistic Values Orientation, and Perceived Behavioral Control. The remaining 30.2% and 30.7% are influenced by other variables not covered in this study. The evaluation of the model based on these R^2 values demonstrates that the model is strong in explaining the Attitude and Green Purchase Intention variables.

Predictive Relevance Q². The purpose of the Q^2 (Predictive Relevance) test in structural analysis is to assess the extent to which the model can predict the observed values. In structural models, a Q^2 value greater than 0 indicates good predictive relevance, whereas a Q^2 value less than 0 suggests low predictive relevance. Changes in Q^2 values in Partial Least Squares (PLS) can provide insight into the relative impact of the model being tested (Hair et al., 2021). The results of the Q^2 testing are presented in the following table:

Table 6: Results of Predictive Relevance Q² Evaluation

Variable	SSO	SSE	Q-Square
Attitude	765	409,278	0,465
Green Purchase Intention	765	407,902	0,467

Source: Data processed using SmartPLS, 2024

Based on the Q^2 evaluation results presented in Table 6 above, both variables, Attitude and Green Purchase Intention, exhibit Q^2 values greater than 0, with values of 0.465 and 0.467, respectively. This indicates that the model used demonstrates adequate predictive capability for both variables.

F-Square (f²) Test. F-Square (effect size) is a tool used to assess the extent to which exogenous variables influence endogenous variables. This measure helps determine whether endogenous latent variables are significantly affected by exogenous latent variables. F-Square is categorized based on effect size: values between 0.02 and 0.15 are considered small, values between 0.15 and 0.35 are considered medium, and values above 0.35 are considered large (Hair et al., 2021). The results of the effect size (f^2) measurement are presented in the table below:

Table 7: Results of the F-square (f²) Evaluation

Relationships Between Variables	F-square (f2)	Effect Size
AVO → ATT	0,137	Small
EC → ATT	0,172	Medium
PBC → ATT	0,225	Medium
AVO → GPI	0,006	Small
ATT → GPI	0,252	Medium
EC → GPI	0,002	Small
PBC → GPI	0,139	Small

Source: Data processed using SmartPLS, 2024

Based on the results of the F-square (f²) test presented in Table 7, the relationship between Altruistic Values Orientation and Attitude exhibits a small effect, with an f² value of 0.137. In contrast, the relationships between Environmental Concern and Attitude, as well as Perceived Behavioral Control and Attitude, demonstrate medium effects with f² values of 0.172 and 0.225, respectively. Furthermore, the relationship between Altruistic Values Orientation and Green Purchase Intention shows a small effect with an f² value of 0.006. Attitude towards Green Purchase Intention has a medium effect with an f² value of 0.252, while Environmental Concern and Perceived Behavioral Control towards Green Purchase Intention show small effects with f² values of 0.002 and 0.139, respectively.

Hypothesis Evalaution. According to Hair et al. (2021), a hypothesis is considered accepted if the t-statistic value exceeds 1.96. Additionally, if the p-value obtained from the test is less than 0.05 (α = 5%), the test is deemed significant. Conversely, if the p-value is greater than 0.05 (α = 5%), the test is considered not significant. Mediation effect testing is conducted using the method developed by Baron and Kenny (as cited in Ghozali & Latan, 2021), where the effect of the exogenous variable on the mediating variable must be significant, with a t-statistic greater than 1.96. The results of the hypothesis testing are presented as follows:

Table 8: Results of Hypothesis Evaluation

	Hypothesis	Original Sample (O) / Path Coefficients	T Statistics	P Values	Results	Type of Mediation
H1	EC → ATT	0,321	4,375	0,000	Accepted	-
H2	AVO → ATT	0,304	3,623	0,000	Accepted	-
H3	PBC → ATT	0,342	4,477	0,000	Accepted	-
H4	ATT → GPI	0,506	6,716	0,000	Accepted	-
H5	EC → GPI	0,04	0,637	0,524	Rejected	-
H6	AVO → GPI	0,07	0,892	0,372	Rejected	-
H7	PBC → GPI	0,3	3,769	0,000	Accepted	-
H8	EC → ATT → GPI	0,162	3,667	0,000	Accepted	Full Mediation
H9	AVO → ATT → GPI	0,154	3,242	0,001	Accepted	Full Mediation
H10	PBC → ATT → GPI	0,173	3,438	0,001	Accepted	Partial Mediation

Source: Data processed using SmartPLS, 2024

The Relationship between Environmental Concern and Attitude. Based on the results of the first hypothesis test, it was found that environmental concern has a positive and significant effect on attitude, thereby supporting the acceptance of the first hypothesis. This analysis is consistent with the findings of Chen et al., (2022) and Ferreira and Pereira (2023), which demonstrate that environmental concern positively and significantly influences attitude. Additionally, the study by Simanjuntak et al. (2023) also confirms that environmental concern is a key determinant of consumer attitude.

As consumers' environmental concern increases, their attitude towards eco-friendly skincare products improves. This is evidenced by the variable analysis of Environmental

Concern, which showed the highest value in the statement "When buying eco-friendly skincare products, I prefer to choose natural ingredients." This finding highlights the crucial role of environmental concern in fostering a positive attitude towards eco-friendly skincare products. When consumers exhibit high environmental concern, they tend to be more selective and value products with natural ingredients, reflecting their positive attitude towards sustainability and environmental protection.

The Relationship between Altruistic Values Orientation and Attitude. Based on the results of the second hypothesis test, it was found that altruistic values orientation has a positive and significant effect on attitude, confirming the acceptance of the second hypothesis. This finding is consistent with the results of Harjadi and Gunardi (2022) and Magano et al., (2023), which indicate that altruistic values orientation plays a key role in shaping attitude.

As individuals' altruistic values orientation increases, their attitude towards eco-friendly skincare products becomes more positive. This can be interpreted from the variable analysis of altruistic values orientation, which showed the highest value in the statement, "To survive, humans must maintain a good relationship with nature." This suggests that individuals with a high altruistic values orientation, such as those who believe in the importance of maintaining a harmonious balance with the environment, tend to have a positive attitude towards eco-friendly skincare products. They are more concerned about the impact of the products they use on the ecosystem and choose products considered eco-friendly as part of their efforts to protect nature.

The Relationship between Perceived Behavioral Control and Attitude. Based on the results of the third hypothesis test, it was found that perceived behavioral control (PBC) effectively influences attitude, confirming the acceptance of the third hypothesis. This finding is consistent with the studies by Koththagoda and Herath (2018) and Yusuf and Zulfitri (2021), which demonstrate that PBC has a strong and beneficial impact on attitude**.**

PBC reflects the extent to which individuals feel they have control or capability to perform a behavior. When consumers believe that they can easily use eco-friendly skincare products, they are likely to develop a positive attitude towards those products. This is supported by the variable analysis of PBC, which revealed that the statement, "Adopting an environmentally friendly lifestyle is entirely within my control," had the highest value. It can be said that consumers who perceive full control over their environmentally related behaviors are more likely to support eco-friendly skincare products. They are confident in their ability to make positive changes and contribute to environmental protection through their choice of skincare products.

The Relationship between Attitude and Green Purchase Intention. The results of the fourth hypothesis analysis indicate that Attitude has a strong impact on the intention to purchase eco-friendly products, thereby confirming the acceptance of the fourth hypothesis. This study supports previous research findings by Abeysekera et al., (2022), Moslehpour et al., (2021), and Mukherjee and Chandra (2021), which assert that Attitude has the most significant effect on the intention to buy sustainable products. Additionally, Kamalanon et al., (2022) and Limbu et al., (2022) emphasize that Attitude is a crucial factor that precedes the intention to

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purchase eco-friendly products.

Consumers' perceptions of eco-friendly products significantly influence their purchase intentions. In other words, if a consumer holds a favorable view of environmentally-based skincare products, they are more likely to intend to purchase such products. This is corroborated by the variable analysis of Attitude, which revealed that the statement "I have a positive attitude towards N'PURE skincare products", had the highest value. It can be concluded that consumers are inclined to respond positively to eco-friendly skincare products like N'PURE, reflecting a shift in consumer mindset towards a more sustainable lifestyle.

The Relationship between Environmental Concern and Green Purchase Intention. Based on the hypothesis testing results, environmental concern was found to have an influence on green purchase intention, though this influence was not statistically significant. Consequently, the fifth hypothesis, which posited that environmental concern has a meaningful influence on green purchase intention, is rejected. These findings are consistent with the studies conducted by Chaudhary & Bisai (2018) and Harun et al., (2022), which indicated that environmental concern does not have a significant impact on green purchase intention. Additionally, research by Hoang Yen & Hoang (2023) and Tan et al., (2017) also corroborated that environmental concern does not exhibit a direct significant effect on green purchase intention.

The lack of environmental awareness among respondents can be explained through the Value-Belief-Norm (VBN) theory, which posits that values, beliefs, and norms shape pro-environmental behavior. In this context, the values, beliefs, and norms held by the respondents do not sufficiently support pro-environmental actions. As a result, environmental concern does not have a significant impact on green purchase intention. Although individuals may possess certain values and beliefs, the prevailing norms are not strong enough to motivate them to choose eco-friendly products.

The Relationship between Altruistic Values Orientation and Green Purchase Intention. According to the evaluation of the sixth hypothesis, it was found that altruistic values orientation has an effect that leads to an increase in the intention to purchase eco-friendly products, although this effect is not strong enough, thereby resulting in the rejection of the sixth hypothesis. This finding is consistent with previous research by Caniel et al., (2021), which indicates that altruistic values orientation does not have a significant impact on the intention to buy eco-friendly products.

This study's finding is counterintuitive, as it is generally expected that individuals with higher altruistic values would be more concerned about the environment and more inclined to purchase green products. The value-action gap explains the inconsistency between consumers' values and their actions (behavior). Although consumers acknowledge the importance of eco-friendly consumption, they often fail to align their behaviors with this recognition. One reason for this value-action gap is the perceived trade-offs associated with green products, such as higher prices, inadequate quality, and lack of effectiveness. Consumers may avoid green products because they feel they need to sacrifice these factors. Bridging this gap requires further efforts in the form of education, informational campaigns, and supportive policies that make it easier for consumers to make more environmentally

friendly choices.

The Value-Belief-Norm (VBN) theory explains how individual values influence beliefs and norms, which in turn affect behavior. In this context, even though respondents possess high altruistic values, this alone is insufficient to influence their intention to purchase eco-friendly products. This is because awareness of negative consequences and the assignment of personal responsibility do not directly translate into purchasing actions due to a lack of strong personal norms. Despite having altruistic values, without strong beliefs and personal norms driven by these values, respondents' intention to engage in green purchasing remains low.

The Relationship between Perceived Behavioral Control and Green Purchase Intention. Theory of Planned Behavior (TPB) posits that Perceived Behavioral Control (PBC) significantly influences individuals' intentions and behaviors. The results of the seventh hypothesis test confirm that PBC is a critical determinant of the motivation to purchase eco-friendly products, supporting the acceptance of the seventh hypothesis. This finding aligns with the studies conducted by Aseri and Ansari (2023), Sharma and Lawande (2022), and Wang et al., (2022), which emphasize the pivotal role of PBC in influencing the motivation to buy eco-friendly products. These studies collectively highlight that individuals who perceive they have greater control over purchasing eco-friendly products are more likely to form intentions and subsequently engage in such behaviors. Therefore, the strong relationship between PBC and green purchase intention, as outlined in TPB, is substantiated by the current findings and previous research.

Consumers' intention to purchase eco-friendly skincare products tends to be higher when they feel they have greater control over the purchasing process. This is supported by the variable analysis of Perceived Behavioral Control, which showed that the statement, "Adopting an environmentally friendly lifestyle is entirely within my control," had the highest value. Thus, these results indicate that consumers' confidence in their ability to control environmentally friendly behaviors positively affects their willingness to choose eco-friendly beauty products.

The Effect of Environmental Concern on Green Purchase Intention with Attitude as a Mediating Variable. The Value-Attitude-Behavior (VAB) theory posits that an individual's values influence their attitudes, which in turn drive their behavior. Applying this theory to the relationship between environmental concern and green purchase intention, we can understand the role of attitude as a critical mediator. According to the VAB theory, environmental concern reflects an individual's values related to the environment. These values shape their attitudes towards eco-friendly products. When individuals are genuinely concerned about the environment, this concern forms a positive attitude towards purchasing green products. This positive attitude then leads to the intention to make green purchases. The hypothesis testing results support this theoretical framework. Hypothesis H8 confirms that environmental concern significantly affects green purchase intention through attitude. This means that while environmental concern alone might not directly translate into green purchase behavior, it does so indirectly by shaping a positive attitude towards such behavior. This mediated relationship underscores the importance of attitude in translating environmental values into actionable intentions. Studies by Chaudhary and Bisai (2018) and

Moslehpour et al., (2021) align with this interpretation, demonstrating that attitude plays a significant mediating role in the link between environmental concern and green purchase intention. In these studies, individuals with high environmental concern are more likely to develop positive attitudes towards green products, which in turn increases their intention to purchase these products.

The Effect of Altruistic Values Orientation on Green Purchase Intention with Attitude as a Mediating Variable. According to VAB theory, values inform attitudes, which then drive behavior. In this context, altruistic values—those prioritizing the welfare of others and the environment—play a foundational role in shaping attitudes towards eco-friendly products. The hypothesis testing results indicate the acceptance of Hypothesis H9, demonstrating that altruistic values orientation significantly impacts green purchase intention when mediated by attitude. This finding aligns with the VAB theory's premise that values (altruistic values) influence attitudes (positive attitudes towards green products), which in turn affect behavior (green purchase intention). Research by Druica et al., (2023), Prakash et al. (2019), and Wang et al., (2019) supports this finding, highlighting the significant mediating role of attitude. These studies show that individuals with strong altruistic values develop favorable attitudes towards green products. These positive attitudes are crucial in transforming altruistic values into actual green purchase intentions. Furthermore, the results indicate that attitude fully mediates the effect of altruistic values orientation on green purchase intention. This means that while altruistic values orientation alone may not directly lead to green purchase intention, it does so indirectly by fostering positive attitudes towards eco-friendly products. The direct relationship between altruistic values orientation and green purchase intention is not significant without the mediating role of attitude.

The Effect of Perceived Behavioral Control on Green Purchase Intention with Attitude as a Mediating Variable. The results of the hypothesis testing indicate that Hypothesis H10 is accepted. PBC, with attitude serving as a mediator, significantly contributes to green purchase intention. This finding is consistent with the research by Yusuf and Zulfitri (2021) and Harjadi and Gunardi (2022), which identifies attitude as a positive mediator in the relationship between PBC and green purchase intention. Attitude functions as a partial mediator in the relationship between PBC and green purchase Intention, as the direct relationship between PBC and green purchase intention remains significant.

Based on the results of the PBC variable test, the statement with the highest value is, "Adopting an environmentally friendly lifestyle is entirely within my control." For the attitude variable, the highest-valued statement is, "I have a positive attitude towards N'Pure skincare products." From these findings, it can be concluded that individuals' belief in their ability to control their pro-environmental behavior (PBC) enhances their positive attitude towards eco-friendly skincare products, ultimately increasing their intention to purchase such products. Therefore, one strategic action companies can take is to ensure that eco-friendly skincare products are easily accessible to consumers through wide distribution and good availability both in physical stores and online platforms.

Conclusion

Based on the findings and discussion on "The Influence of Environmental Concern, Altruistic Values Orientation, and Perceived Behavioral Control on Attitude and Their Implications for Green Purchase Intention of Eco-Friendly Skincare," it can be concluded that Environmental Concern, Altruistic Values Orientation, and Perceived Behavioral Control (PBC) have a strong positive impact on consumers' attitudes towards eco-friendly skincare products, where a better attitude is associated with increased green purchase intention. Although Environmental Concern and Altruistic Values Orientation do not directly enhance Green Purchase Intention, they influence it through Attitude. PBC affects green purchase intention both directly and through Attitude, confirming that individuals' confidence and opportunity to act play a significant role in determining their intention to purchase eco-friendly products.

Advice

Based on the research findings, several recommendations can be considered by eco-friendly skincare producers, especially N'PURE. To raise consumer awareness and knowledge about eco-friendly skincare, companies should educate consumers on the environmental and personal health benefits of such products. This can be achieved through social media campaigns, websites, brochures, and seminars. It is crucial to clearly and consistently communicate the company's environmental values to resonate with consumers, emphasizing the commitment to sustainable practices and providing transparent information about the positive environmental impact of the products. Improving product availability in strategic retail locations and enhancing online purchasing options can make it easier for consumers to find and buy N'PURE products. Additionally, highlighting the long-term benefits of using eco-friendly skincare, such as better skin health and positive environmental impact, can help justify the higher price and encourage consumers to choose these products over conventional options. By implementing these strategies, N'PURE can enhance consumer awareness, attitudes, and purchase intentions towards their eco-friendly skincare products.

Limitations and Suggestions for Future Research

Additionally, there are several limitations to this study. It is recommended that future research involves a more diverse range of locations, rather than focusing solely on Jakarta, Tangerang, Bandung, Semarang, Yogyakarta, and Surabaya. Broader research will identify consumer characteristics in various other cities concerning the use of eco-friendly skincare products, providing a more comprehensive insight into consumer behavior and preferences across different regions. Each city may have distinct demographic, cultural, and environmental characteristics that can influence consumer Attitude and Green Purchase Intention. By expanding the research area, the findings will be more representative and widely applicable.

Future researchers are also encouraged to retest the existing model by incorporating additional factors that have not been considered, such as Eco-Labelling, Health Consciousness, and biospheric values. Including these variables is expected to provide a more comprehensive understanding of the elements influencing Green Purchase Intention and Attitude in the context of eco-friendly behavior. Subsequent studies could adopt the same variables but apply them to different categories of eco-friendly products beyond skincare. This approach will enhance the generalizability of the findings and contribute to a broader understanding of

consumer behavior towards various types of sustainable products.

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