Volume 13X Nomor 4 Halaman 904–919

Jurnal Ilmu Manajemen

Laman Jurnal: https://journal.unesa.ac.id/index.php/jim

Exploring the Influence of Green Brand on Consumers Purchase Intention for Eco-Friendly Lipstick

Nur Janah*, Evi Maya Odelia

Management Study Program, Faculty of Economics & Business, Wijaya Putra University

*Email korespondensi: nurjanah@uwp.ac.id

Abstract

This study aims to examine the influence of eco labels, consumer knowledge, and environmental awareness on the interest in buying eco-labeled lipsticks, with green brands as the mediating variable. This research is motivated by the increasing attention to sustainability issues in the cosmetics industry and changes in consumer behavior that increasingly consider environmental aspects in purchasing decisions. A quantitative approach was used in this study with the analysis of Partial Least Squares (PLS) with the help of SmartPLS software. Data was collected from 100 female respondents who had experience or interest in environmentally friendly cosmetic products. The results of the study show that green brands have a significant effect on buying interest. Environmental awareness also has a significant effect on buying interest, albeit in a negative direction. On the other hand, eco-labels and consumer knowledge have no direct effect on buying interest. In indirect relationships, green brands have been proven to mediate the influence of consumer knowledge on buying interest, but do not mediate the influence of eco-labels and environmental awareness. These findings suggest that strengthening green brand image has a more important role in influencing purchasing decisions than just the presence of the label or the level of consumer knowledge and awareness. This research provides implications for cosmetics companies to emphasize sustainable branding strategies to increase product appeal in a market that is increasingly concerned about the environment.

Keywords: green brand, eco label, consumer knowledge, environmental awareness, buying interest

https://doi.org/10.26740/jim.v13n4.p904-919

Received: September 21, 2025; Revised: November 18, 2025; Accepted: November 21, 2025; Available online: December 31, 2025

Introduction

Climate change and increasingly critical environmental degradation have driven a shift in the global consumption paradigm towards sustainability principles. The cosmetics industry, as one of the sectors with a significant ecological footprint, is facing increasing pressure to transform. The high use of microplastics, non-recyclable packaging, and harmful chemicals in conventional cosmetic products is driving the increasing demand for more environmentally friendly alternatives (Balasundaram et al., 2024). In Indonesia, this dynamic is also strengthened by government policies through the Asta Cita program, which explicitly encourages the transition to a circular economy, including in the cosmetics sector (Ministry of Industry, 2025). However, efforts to implement sustainability at a practical level still face complex challenges, especially in bridging consumer awareness with actual purchasing behavior.
Previous studies have identified various determinant factors in driving buying interest in eco-friendly products. Mosier, (2023) and Yao et al., (2025) Highlighting the role of eco labels as a signal of trust that is able to reduce information asymmetry between producers and consumers. On the other hand,

Akandere & Gümrah, (2025) argues that consumer knowledge of the environmental impact of products plays an important role in shaping purchasing decisions. Meanwhile, Kirkland et al., (2024) emphasizing that environmental awareness serves as a moral driver in sustainable consumption behavior.

Although various studies have identified factors that influence the intention to purchase environmentally friendly products, such as environmental awareness, lifestyle, health beliefs, to image and trust in the brand (Rodrigues et al., 2023; Vafaei-Zadeh et al., 2025), most of those studies have not specifically examined the linkages between consumer knowledge, environmental awareness, and *eco-label* to the interest in buying green cosmetics, especially in the context of the Indonesian market.

Previous research has been conducted in developed countries or global markets in general, without considering local characteristics such as the level of green literacy of consumers, the penetration of green-labeled cosmetic products, and perceptions of local brands in Indonesia (Rodrigues et al., 2023; Vafaei-Zadeh et al., 2025). In addition, although there are studies that highlight the importance of green brand equity or attitudes towards green brands as mediators (Nguyen-Viet, 2022; Wang et al., 2022)role *green brand* as a specific mediator between psychosocial factors (knowledge and awareness) as well as external elements such as *eco-label* With the interest in buying eco-friendly cosmetics, it is still rarely explained comprehensively in one complete model. This shows that there is a research gap, namely the lack of studies that simultaneously test the influence of consumer knowledge, environmental awareness, and *eco-label* against the interest in buying green cosmetics by positioning *green brand* as a mediator, especially in the context of millennial and millennial consumers in the East Java region, Indonesia. Thus, this research is expected to make an empirical contribution to enriching the understanding of green purchasing behavior in emerging markets.

This research has significant urgency in three main dimensions. First, from the industry side, the Statista survey (2024) shows that as many as 72% of the Millennial and Zilenial generations in Indonesia express a preference for environmentally friendly cosmetics. However, the gap between attitudes and behaviors (green attitude-behavior gap) is still high, which is largely due to skepticism of *greenwashing practices* and the perception of premium prices of green products (Szaban et al., 2025). Second, from a theoretical perspective, an integrative model is needed that is able to test the role *of green brands* as mediators, a mechanism that has not been explored in depth until now, especially in the local context of Indonesia (Filip et al., 2025). Third, in terms of policy, the results of this research are expected to provide an empirical basis in evaluating the effectiveness of the Asta Cita program in encouraging sustainable consumption in the real sector.

Based on the identification of research gaps and urgency, this study specifically aims to examine the direct influence of *eco-labels*, consumer knowledge, and environmental awareness on buying interest in eco-friendly lipsticks, as well as analyze the role *of green brands* as a mediating variable in Millennial and Zilenial consumers in East Java. The focus on lipstick products was chosen because this category is known for its high content of microplastics and the use of plastic packaging, as well as being one of the most popular products among young consumers (Rodrigues et al., 2023).

Theoretically, this research carries an innovative conceptual framework by positioning *green brand* as a central mediator between external and psychosocial determinants of buying interest. This approach is based on the integration of two main theoretical foundations, namely *Signaling Theory* (Connelly et al., 2011), which explains the role of *eco-label* as a signal of product credibility, as well as *Theory of Planned Behavior* (Ajzen, 1991) which is used to understand the process of forming buying intent more deeply. The main novelty of this study lies in three aspects: (1) the full empirical testing of the mediation model in the context of specific cosmetic products that have not been studied before; (2) dual

demographic focus on generation Z and Millennials and geographical focus on East Java, as one of the epicenters of the national cosmetics industry.

The main theoretical contribution of this study is first, validating the *dual-pathway mechanism* by which *green brands* function as critical mediators between psychosocial determinants (environmental knowledge and awareness) as well as external stimuli (*eco-labels*) on buying interest. Second, this study enriches the application of *Signaling Theory* in the context of environmental certification on cosmetic products in developing countries. The practical contribution of this research includes three things: (1) providing a green marketing strategy map for cosmetics industry players to overcome the issue *of greenwashing* through evidence-based communication design; (2) providing data-based policy recommendations for the government in optimizing the implementation of the Asta Cita program; and (3) develop an effective consumer education framework to bridge the gap between attitudes and behaviors through increasing sustainability literacy.

Literature Review

Concept *green brand* refers to a brand that is committed to sustainable and eco-friendly practices, which is not only demonstrated through products but also the brand's values and activities. According to *Theory of Planned Behavior* (Ajzen, 1991), positive attitudes towards an object, including a brand, can influence the intention of consumer behavior, in this case buying interest. Green brands are able to build trust, loyalty, and a strong perception of added value, especially when consumers view the brand as authentic and socially and environmentally responsible. In the context of eco-friendly cosmetics such as green lipstick, these values are a strong attraction for consumers who care about personal health and environmental sustainability.

Previous research has shown that *green brand knowledge* and *green brand trust* contributes significantly to shaping consumer buying interest in green products. Consumers who understand and trust a brand's commitment to environmental sustainability are more likely to show high purchase intent (Tanveer et al., 2024). Green branding supported by a consistent green marketing strategy is also able to improve brand image and consumer perception of product quality (Sujanska & Nadanyiova, 2024). Therefore, in the green cosmetics industry, strengthening the green brand image is a strategic step in encouraging purchase decisions. Then the following hypothesis is proposed:

H1: Green brands have a positive effect on consumer interest.

Eco-label or environmental label is a communication tool that provides information about the environmental impact of a product. In the framework *Theory of Planned Behavior* (Ajzen, 1991), eco-label increases the perception of perceived behavioral control and reinforces positive attitudes towards green products, which directly affects buying interest. When eco-labels are considered credible, informative, and easy to recognize, consumers feel more confident that the product is truly environmentally friendly and in line with their values.

Empirical studies show that the existence of eco-labels has a significant effect on purchase intentions, especially in emerging markets that are starting to experience increased environmental awareness (Kumar & Basu, 2023). Visually appealing, easy-to-understand labels have been shown to increase consumers' desire to pay more for sustainable products (Rihn et al., 2019). In the context of green cosmetics, such as eco-friendly lipsticks, the existence of a trusted eco-label is one of the important indicators that helps consumers distinguish authentic green products from conventional products.

H2: Eco-labels have a positive effect on buying interest in environmentally friendly products.

Consumers' knowledge of environmental issues and green products influences the way they evaluate and make purchasing decisions. In context *Theory of Planned Behavior* (Ajzen, 1991), highly

knowledgeable consumers tend to process information centrally and are more responsive to product attributes that support sustainability. This knowledge includes not only an understanding of the composition and impact of products, but also of ethical and environmentally friendly production practices.

Research shows that environmental knowledge has a direct and indirect influence on the intention to buy green products, including through the formation of positive attitudes and reduced skepticism of green claims (Syadzwina & Astuti, 2021). In addition, consumers who have adequate knowledge tend to be better able to recognize the benefits of environmentally friendly products and are more critical in choosing cosmetic products that are in accordance with green values. Therefore, in the cosmetics industry such as eco-friendly lipsticks, consumer education is an important factor to increase purchase intent. Thus, the hypothesis is formulated:

H3: Consumer knowledge has a positive effect on buying interest in environmentally friendly products.

Environmental awareness reflects an individual's level of attention and concern for environmental issues. By *Theory of Planned Behavior* (Ajzen, 1991), environmental awareness is a manifestation of personal values that drive pro-environmental behavior, including in purchasing decisions. Consumers who are aware of the negative impact of conventional products on health and the environment tend to adopt sustainable lifestyles, including in choosing environmentally friendly cosmetic products.

Studies have shown that environmental awareness is a strong predictor of environmental awareness. *green purchase intention*. Consumers with a high level of awareness show a greater preference for products with minimal ecological impact (Parashar et al., 2021; Sanny et al., 2023). In the context of green cosmetics, such as lipsticks that use natural ingredients and recycled packaging, environmental awareness encourages consumers to switch from conventional products to more sustainable alternatives, as personal responsibility for the planet and personal health increases. Therefore, the hypotheses that can be put forward are:

H4: Environmental awareness has a positive effect on interest in buying environmentally friendly products.

According to *Theory of Planned Behavior* (Ajzen, 1991), attitude towards an object is formed by knowledge and belief in that object. In the context of green brands, consumers' knowledge of eco-friendly products plays an important role in shaping their perception of green brands. Consumers who have a high level of knowledge about the benefits and characteristics of eco-labeled products tend to have a positive perception of green brands. This knowledge includes understanding the ingredients, production process, and environmental impact of the products consumed. Tanveer et al., (2024) It found that green brand knowledge has a significant influence on brand perception, brand image, and ultimately influences consumer purchase intent. Other research also supports that consumer knowledge of eco-friendly products directly increases trust and loyalty to green brands (Mohd Suki, 2016; Siyal et al., 2021). Therefore, it can be assumed that the higher the consumer's knowledge of green products, the more positive their perception of green brands will be.

H5: Consumer knowledge has a positive effect on the perception of green brands.

An eco-label is a symbol or certification that indicates that a product has met certain environmental standards in its production process (Keshminder et al., 2019). This label acts as a communication tool between producers and consumers in conveying their commitment to the environment. *Signaling theory* stating that in conditions of information asymmetry, eco-labels can be a signal of trust to show that a brand is indeed truly environmentally friendly (Connell, 2013).

Empirical research by (Li, 2025; Sharma & Kushwaha, 2019) found that the existence of eco-labels increases the perception of brands as green brands (*green brand perception*). When consumers see legitimate and trusted eco-labels, they are more likely to judge that the brand is ecologically responsible.

H6: Eco-labels have a positive effect on the perception of green brands.

Environmental awareness (*environmental awareness*) refers to the extent to which individuals are aware of the importance of protecting the environment and understand the impact of consumption activities on sustainability. Ecological values embraced by individuals can shape personal beliefs and norms that are ultimately reflected in consumption behavior, including in the assessment of brands. Studies from Nguyen et al., (2019) suggests that consumers with high levels of environmental awareness are more likely to have a positive perception of brands that support sustainability. This is because they value companies that implement eco-friendly practices as part of their social responsibility.

H7: Environmental awareness has a positive effect on the perception of green brands.

In the framework *Signaling Theory* (Spence, 1973), eco-labels serve as external signals that assure that products meet certain environmental standards. Eco-labels increase product credibility and strengthen the image of green brands in the eyes of consumers. Junarsin et al., (2022) It shows that brand trust and preferences formed through consumer awareness of eco-labels have an indirect influence on buying interest, through the mediating role of green brand image. Sanny et al., (2023) It also emphasizes that eco-labels can strengthen brand trust, which ultimately drives the intention to purchase green products. Moreover Tsai et al., (2025) In the context of electric vehicles, it was found that the perception of green attributes mediated by brand perception significantly increased purchase intent. Therefore, green brands are an important link between eco-labels and consumer buying interest.

H8: Green brands mediate the influence of eco-labels on buying interest.

According to *Theory of Reasoned Action* (Fishbein & Ajzen, 1975), consumer behavior is influenced by attitudes, which are shaped by knowledge and perception of an object. In this context, knowledge of green products forms a more positive perception of green brands. Study by Sanny et al., (2023) It shows that ecological knowledge is a strong predictor of green brand image, which in turn drives purchase intent. Research Rama & Susanto, (2024) It also emphasizes that consumer knowledge has an indirect influence on purchase intent through the mediation of attitudes towards green products. With increasing consumer understanding of the benefits of eco-friendly products, the image of a green brand will strengthen and have a positive impact on purchasing behavior.

H9: Green brands mediate the influence of consumer knowledge on buying interest.

Environmental awareness reflects an individual's level of sensitivity to sustainability issues and ecological responsibility. By *Value-Belief-Norm Theory* (Stern et al., 1999), a person's environmental values will influence personal beliefs and norms, which in turn guide sustainable consumption behavior. Guiao & Lacap, (2022) shows that awareness of environmental sustainability and altruism influences green brand evangelism through strengthening the image of green brands. Furthermore, Nguyen et al. (2023) found that environmental awareness not only has a direct impact on purchase intent, but also indirectly through the perception of green brands. Research by Alamsyah & Febriani, (2020) and Baltaci et al., (2024) It also consistently shows that consumer perception of green brands is an effective mediator in transforming environmental awareness into purchase intention.

H10: Green brands mediate the influence of environmental awareness on buying interest.

Research Methods

This study uses Structural Equation Modeling (SEM) to test the proposed hypothesis, with the help of SmartPLS 4 software. The reason for using PLS-SEM in this study is that this method is suitable for

analyzing latent variable relationships in complex models, especially when the data is not normally distributed and the sample size is not very large (Hair et al., 2019). In addition, PLS-SEM is very suitable for high-complexity models involving mediation variables, such as in this study which examines the role of green brands as a mediating variable between eco-labels, consumer knowledge, and environmental awareness to interest in buying environmentally friendly products in generation Z. green literacy, and environmental awareness) and how green brand identity strengthens purchase intentions in young consumers. With this approach, the research is expected to make a theoretical and practical contribution to understanding environmentally friendly consumer behavior as well as more effective sustainable marketing strategies for green industry players in Indonesia.

Table 1
Operational Definition of Research Variables

Variabel	Indicator	Source	Scale
Green Brand			
GB.1	Belief in cosmetic brands' concern for the environment.	Chen, 2010; Kang et al., 2012	Likert 1–5
GB.2	Preference on brands that promote eco-friendly practices.		
GB.3	Perception of brand reputation as an environmentally friendly product.		
GB.4	The influence of green imagery on purchase decisions.		
Eco-Label			
EL.1	Ability to recognize eco-labels.	D'Souza et al., 2006; Testa et al., 2015	Likert 1–5
CHAPTER 2	The influence of eco-label information in product selection.		
EL.3	The perception that eco-labels reflect environmental commitment.		
EL.4	The clarity of eco-friendly labels increases buying interest.		
Environmental Awareness			
KL.1	Awareness of the negative impact of cosmetics on the environment.	Schultz et al., 2005; Lee, 2008	Likert 1–5
KL.2	A sense of responsibility to buy eco-friendly products.		
KL.3	Preference for products that support the preservation of nature.		
KL.4	Interest in sustainability and environmental issues.		
Consumer Knowledge			
PK.1	Knowledge of the difference between conventional and eco-friendly cosmetics.	Moisander, 2007; Mostafa, 2007	Likert 1–5
PK.2	Understanding of materials that are safe for the environment.		
PK.3	The ability to assess the environmental friendliness of a product.		
PK.4	The intensity of the search for information about eco-friendly cosmetics.		
Buying Interest			
M.1	The intention is to buy eco-friendly labeled lipstick in the near future.		Likert 1–5

M.2	Willingness to try eco-friendly cosmetic products.	Ajzen, 1991 (Theory of Planned Behavior); Lin & Huang, 2012	
M.3	Willingness to recommend eco-friendly lipsticks to others.		
M.4	Buying preference even though the price is more expensive.		

Results

This study aims to examine the influence of eco labels, consumer knowledge, and environmental awareness on the interest in buying eco-labeled lipsticks, with green brands as the mediating variable. Data were obtained from 100 respondents divided into four main characteristics: age, gender, status, and domicile. The results of the data processing are presented in many several tables.

Table 2
Respondent Characteristics

Characteristics	Category	Frequency (people)	Percentage (%)
Age	17–22 years old	40	40%
	23–30 years old	45	45%
	31–42 years old	15	15%
Gender	Woman	100	100%
	Man	0	0%
Status	Student	52	52%
	Work	41	41%
	Other	7	7%
Domicile	Surabaya	38	38%
	Hapless	33	33%
	Jember	21	21%
	Other	8	8%

Based on Table 2, the majority of respondents were in the age range of 23–30 years (45%), followed by respondents aged 17–22 years (40%), and the rest were aged 31–42 years (15%). This shows that this research is dominated by millennial and zilenial generations, in accordance with the focus of the research. In terms of gender, most of the respondents were women (100%). The dominance of female respondents is relevant to the context of studies that discuss consumer behavior towards cosmetic products, especially lipsticks. In terms of status, as many as 52% of respondents are students, while 41% are already working, and 7% come from other categories (such as housewives or entrepreneurs). This composition reflects that this research reaches both young academics and young professionals. The distribution of domicile shows that respondents come from three main regions in East Java: Surabaya (38%), Malang (33%), and Jember (21%), with the rest (8%) coming from other regions. This distribution reflects fairly evenly distributed geographical representation in the research target area.

Based on the table above, the results of the validity and reliability test, all constructs in this research model, namely Environmental Awareness, Consumer Knowledge, Eco Label, Green Brand, and Buying Interest, show good measurement quality. The Cronbach's Alpha value of each construct is above the minimum threshold of 0.70, which indicates the existence of adequate internal consistency of the items in the construct (Hair et al., 2017). In addition, the Composite Reliability (CR) value of the entire construct is also above 0.80, confirming that the instrument has high reliability to measure the construct in question.

Table 3
Measurement model (construct validity and reliability)

Items	Factor Loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Environmental Awareness (EA)		0.892	0.893	0.755
EA 1	0.874			
EA.2	0.832			
EA.3	0.871			
EA.4	0.897			
Consumer Knowledge (CK)		0.888	0.914	0.754
CK.1	0.887			
CK.2	0.866			
CK.3	0.928			
CK.4	0.923			
Eco Label (EL)		0.897	0.945	0.766
EL.1	0.750			
EL.2	0.931			
EL.3	0.899			
EL.4	0.908			
Green Brand (GB)		0.888	0.903	0.752
GB.1	0.809			
GB.2	0.947			
GB.3	0.895			
GB.4	0.810			
Buying Interest (BI)		0.808	0.826	0.638
BI.1	0.693			
BI.2	0.909			
BI.3	0.799			
BI.4	0.779			

In the aspect of convergent validity, which is indicated by the Average Variance Extracted (AVE) value, all constructs have an AVE value of more than 0.50. This shows that each construct is able to explain more than 50% of the variance of its indicators, so that the convergent validity can be said to be fulfilled (Henseler et al., 2015).
In terms of factor loading, all indicators show values above 0.70, except for one indicator in the Buying Interest construct, namely M.1 which has a loading value of 0.693. Although slightly below 0.70, this indicator is still tenable as it is close to the minimum threshold and the overall Buy Interest construct has an AVE of 0.638, well above the recommended minimum limit (Hair et al., 2017). Hair et al., (2019) It also states that indicators with loading values between 0.60–0.70 can still be used, as long as they do not interfere with the reliability of the composite and the convergent validity of the construct.
Overall, these results show that the measurement model has met the required reliability and validity requirements in the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. Thus, this model is worthy of further analysis at the stage of testing the structural model (inner model).

Table 4
Heterotraitmonotrait ratio (HTMT)

Factor	Eco Label	Green Brand	Environmental Awareness	Interest	Consumer knowledge
Eco Label					
Green_Brand	0.081				
Environmental Awareness	0.823	0.061			
Interest	0.302	0.632	0.303		
Consumer Knowledge	0.124	0.630	0.103	0.253	

Based on the results of the Heterotrait-Monotrait Ratio (HTMT) test shown in the table, all HTMT values between constructs are below the threshold of 0.85 as recommended by (Henseler et al., 2015). The highest value was found between the Environmental Awareness and Eco Label constructs of 0.823, while the other values were even lower. This shows that each construct in the model has a good discriminant validity, i.e. each construct is able to distinguish itself from other constructs.

Good discriminant validity is an important requirement in SEM-PLS modeling because it ensures that a construct does not measure the same as another construct. With the fulfillment of this HTMT criterion, the measurement model can be declared to have adequate discriminant validity, and can be continued to test structural models (inner models) with the belief that each construct is truly unique in measuring its own theoretical dimensions.

Based on the results of the analysis using the Fornell-Larcker Criterion, the validity of the discriminator between constructs in this model has been well met. The Fornell-Larcker criterion states that the square root of the Average Variance Extracted (AVE) value of each construct must be greater than the correlation between the other constructs in the model. In the test results table, all diagonal values that reflect the root of AVE, namely Eco Label (0.875), Green Brand (0.867), Environmental Awareness (0.869), Interest (0.799), and Consumer Knowledge (0.902) have higher values than the correlation between constructs in the same row and column. For example, the AVE root of Green Brand of 0.867 is greater than its correlation with Interest (0.546) and Consumer Knowledge (0.609). Similarly, other constructs show a similar pattern, where the diagonal value is always greater than the correlation value between the constructs. Thus, it can be concluded that each construct has good discriminative ability, meaning that the constructs in the model do not conceptually overlap each other.

These results show that the validity of the discriminant has been met, in accordance with the criteria set by Fornell and Larcker in Hair et al., (2017).

Table 5
Cross Loading

	Eco Label	Green Brand	Awareness Milieu	Interest	Consumer Knowledge
EL.1	**0.750**	-0.079	0.415	-0.157	-0.092
EL.2	**0.931**	0.003	0.733	-0.268	0.063
EL.3	**0.899**	-0.009	0.694	-0.192	0.121
EL.4	**0.908**	-0.114	0.738	-0.280	0.019
GB.1	-0.052	**0.809**	-0.009	0.470	0.436
GB.2	-0.025	**0.947**	0.005	0.547	0.628
GB.3	-0.051	**0.895**	0.065	0.426	0.560
GB.4	-0.087	**0.810**	-0.027	0.446	0.467
AM.1	0.766	0.050	**0.874**	-0.228	-0.022
AM.2	0.537	-0.034	**0.832**	-0.235	-0.061
AM.3	0.580	0.000	**0.871**	-0.208	0.018
AM.4	0.736	0.022	**0.897**	-0.228	0.080
I.1	-0.231	0.293	-0.223	**0.693**	0.054
I.2	-0.192	0.487	-0.203	**0.909**	0.195
I.3	-0.161	0.427	-0.134	**0.799**	0.176
I.4	-0.267	0.501	-0.262	**0.779**	0.260
CK.1	0.104	0.438	0.080	-0.015	**0.887**
CK.2	0.147	0.417	0.127	0.002	**0.866**
CK.3	-0.033	0.687	-0.076	0.365	**0.928**
CK.4	-0.005	0.546	-0.028	0.282	**0.923**

The table above presents the results of cross-loading in this study. For example, the EL.1 indicator had the highest loading on the Eco Label construct (0.750) compared to its loading on Green Brand (-0.079), Environmental Awareness (0.415), Interest (-0.157) and consumer knowledge (-0.092). A similar thing can be seen in other indicators, which show that each measurement variable is more closely related to its own construct than to other constructs, so that the discriminant validity is met. In accordance with the guidance of the Hair et al., (2019), if the loading value of the indicator for the main construct is significantly higher than the loading for other constructs, then it can be concluded that the constructs in the model have good discrimination, and there is no overlap between constructs.

The results of the study showed that the green brand variable had a significant effect on consumer interest with an original sample of 0.646 and *p values* of 0.000, so H1 was supported. The eco-label variable was not significant to consumer interest with *p values* of 0.700, so H2 was rejected. The environmental awareness variable had a significant effect on consumer interest with an original sample of -0.228 and *p values* of 0.043, so H3 was supported. The consumer knowledge variable was not significant to consumer interest with *p values* of 0.417, so H4 was rejected.

In relation to green brands, the eco label is not significant with a *p value* of 0.089, so H5 is rejected. Environmental awareness is also not significant for green brands with *p values* of 0.220, so H6 is rejected. Consumer knowledge has a significant effect on green brands with an original sample of 0.616 and *p values* of 0.000, so H7 is supported.

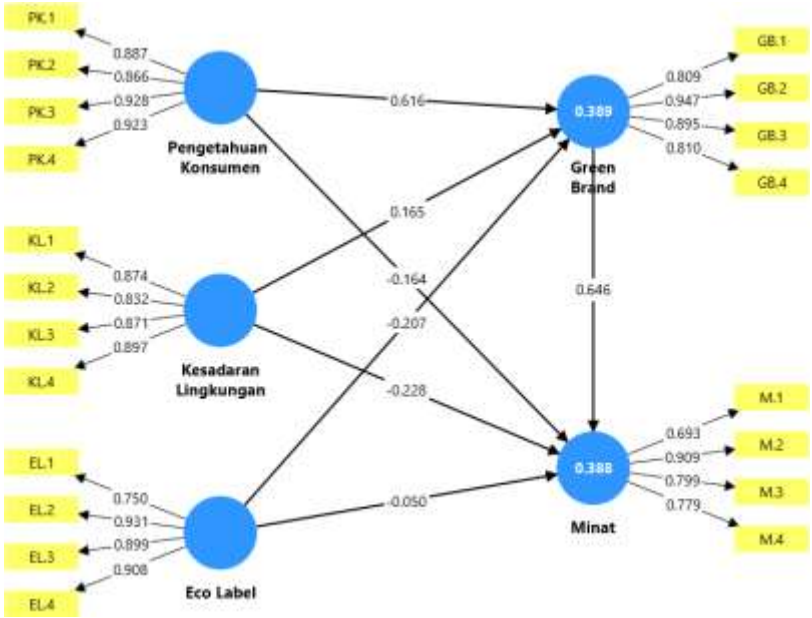

Figure 1 OuterLoadings

Table 6
Hypotheses Test

	Hypotheses	Original sample (O)	P Values	Result
H1	GB > M	0.646	0.000	Supported
H2	THE > M	-0.050	0.700	Not Supported
H3	KL > M	-0.228	0.043	Supported
H4	PK > M	-0.164	0.417	Not Supported
H5	THE > GB	-0.207	0.089	Not Supported
H6	KL > GB	0.165	0.220	Not Supported
H7	PK > GB	0.616	0.000	Supported
H8	EL > GB > M	-0.134	0.171	Not Supported
H9	KL > GB > M	0.107	0.242	Not Supported
H10	PK > GB > M	0.398	0.006	Supported

In the mediation effect, the green brand did not mediate the effect of eco label on interest with *p values* of 0.171, so H8 was rejected. Green brands also did not mediate the influence of environmental awareness on interest with *p values* of 0.242, so H9 was rejected. However, green brands mediated the influence of consumer knowledge on interest with a coefficient of 0.398 and *p values* smaller than 0.006, so H10 was supported. The results above can also be seen in the following Bootstrapping (Innermodel with tvalues) image.

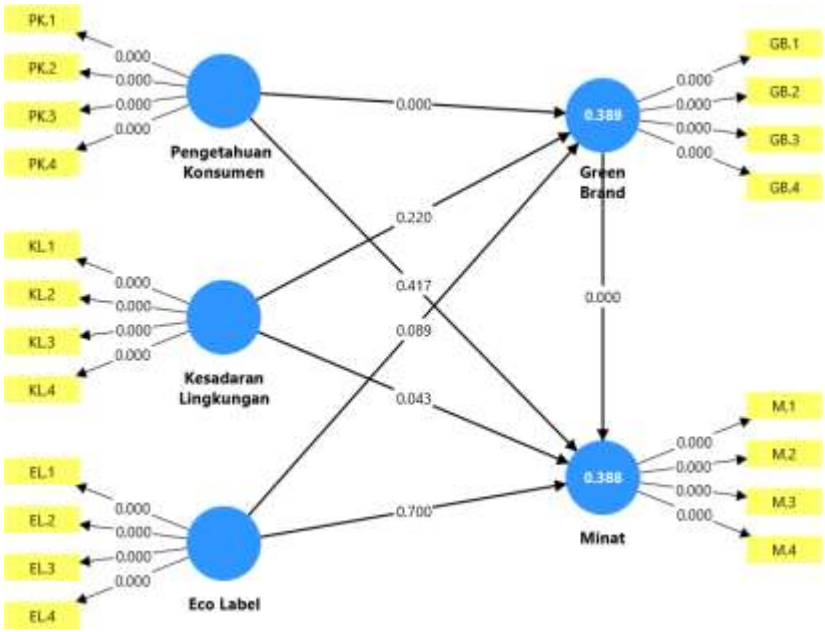

Figure 2 Bootstrapping (Innermodel with tvalues)

The results of the study show that green brands have a significant influence on consumer interest in buying environmentally labeled products. These findings show that the stronger the image of a green brand captured by consumers, the higher their interest in buying the product. This is in line with the view of Chen (2010) who states that green brands can create a positive perception of quality and environmental concern, thereby encouraging more environmentally friendly purchasing behavior.
In contrast, eco labels do not show a significant influence on buying interest. These findings confirm that the existence of eco-friendly labels on products is not strong enough to determine purchasing decisions, possibly due to low literacy of the meaning and credibility of the label. In the context of millennial and millennial consumers, labels do not necessarily guarantee trust, especially if consumers feel that the label is unverified or less known. The environmental awareness variable turns out to have a significant but negative influence on buying interest. It can be see the quoting from Jialing Lin et al (2017) whenever that green brand innovativeness was directly associated with brand loyalty and indirectly influenced brand loyalty via GPV. Moreover, green knowledge significantly moderated the relationship between green brand innovativeness and GPV. Therefore, to promote green brand loyalty, organizations must allocate resources into enhancing consumers' perceptions of green brand innovativeness and green value, and improving their environmental knowledge.

This finding is quite surprising because theoretically, higher environmental awareness should be directly proportional to the desire to support environmentally friendly products. However, this negative effect can be interpreted as a form of environmentally-conscious consumer skepticism towards green-labeled products, or a mismatch between preferences and market reality. Environmentally conscious consumers may be more selective and critical in determining which products actually meet sustainability standards, thus lowering their interest if they feel the product does not meet expectations. Consumer knowledge also does not have a significant effect directly on buying interest, although in theory knowledge can shape preferences. This indicates that even if consumers have knowledge of the concept of green products, it is not enough to drive purchase decisions in the absence of affective factors or strong brand perception. However, consumer knowledge has been shown to have a significant effect on green brands, which shows that consumers who have good knowledge of environmental issues tend to form a positive perception of brands that are considered green. Thus, consumer knowledge indirectly has an important role in shaping buying interest through the perception of green brands.
Furthermore, the results of the mediation test showed that green brands play a mediator in the relationship between consumer knowledge and buying interest. This means that consumer knowledge can increase buying interest only if it is associated with a strong green brand image. This supports the

earlier theory that green brand imagery is an important link between cognitive aspects (knowledge) and behavioral intent (buying interest). Meanwhile, green brands did not mediate the influence of eco labels or environmental awareness on buying interest, indicating that these two variables did not significantly shape brand perception in the context of this study.

Overall, these findings highlight the importance of brand positioning strategies in green marketing. Only by building a strong and credible green brand perception can companies maximize the influence of existing consumer knowledge to drive purchase intent. While eco-labels and environmental awareness remain important, they are not effective enough without a strong branding strategy and more in-depth consumer education.

Conclusion

This study aims to investigate the influence of eco labels, consumer knowledge, and environmental awareness on consumer interest in buying environmentally friendly products, with green brands as a mediating variable. The results of the analysis show that green brands have an important role in shaping consumer interest in green products. Consumer knowledge proves to be a major factor that drives the formation of a strong green brand, which in turn increases consumer interest. On the other hand, eco-labels and environmental awareness do not have a direct or indirect influence through green brands on consumer interest. This shows that while labeling and awareness of environmental issues have increased, it does not necessarily lead to greener purchasing behaviors without a deep understanding and strong brand image.

Theoretically, the results of this study strengthen the understanding in the literature of green consumer behavior by emphasizing the importance of knowledge as the foundation for the formation of a credible green brand. This research also expands the understanding of the role of green brand mediation in the context of sustainable product purchasing, which has been rarely explored in integrated models based on SEM approaches.

In practical terms, these findings have implications for manufacturers and marketers of environmentally friendly products. Strengthening green brands must be the main strategy built through consumer education and the delivery of credible information, not just through symbolic labeling. A more in-depth and educational marketing campaign regarding the benefits and positive impact of green products can encourage consumers to be not only morally aware, but also rationally motivated in choosing green products. Therefore, companies need to build trust in green brands through transparency, consistency of value, and tangible evidence of sustainability.

This research has several limitations that need to be considered. First, the quantitative approach based on individual perceptions does not describe the dynamics of actual behavior in the purchase of green products. Second, the population in this study is still limited to a specific demographic group, so generalizations to the broader population need to be done carefully. Third, the study has not taken into account situational factors such as price, availability of green products, or social influences, which can also affect consumer interest.

For further research, it is recommended to use a mixed methods approach to gain a deeper understanding of consumer motivations and barriers. Future research can also expand the model framework by including other variables such as green trust, environmental value, and subjective norms as additional predictors. In addition, cross-cultural or cross-regional studies are also important to test the consistency of these models in a variety of different geographical and socioeconomic contexts.

Bibliography

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behaviour and Human Decision Process*, *50*(1), 179–211. https://doi.org/10.47985/dcidj.475

Akandere, G., & Gümrah, A. (2025). The Green Purchase Behavior of Young Consumers: The Role of Environmental Knowledge. *Folia Oeconomica Stetinensia*, *25*(1), 1–21. https://doi.org/10.2478/foli-2025-0001

Alamsyah, D. P., & Febriani, R. (2020). Green customer behaviour: Impact of green brand awareness to green trust. *In Journal of Physics: Conference Series*, *1477*(7), 072022.

Balasundaram, N., Dhivya, K., Divya, G., Joshi, A., Hamza, L. H. J., Reddy, P. C. S., Chabra, R., & Kapoor, M. (2024). Development of domestic waste management recycle to finished goods. *E3S Web of Conferences*, *563*. https://doi.org/10.1051/e3sconf/202456303050

Baltaci, D. Ç., Durmaz, Y., & Baltaci, F. (2024). The relationships between the multidimensional planned behavior model, green brand awareness, green marketing activities, and purchase intention. *Brain and Behavior*, *14*(6). https://doi.org/10.1002/brb3.3584

Connell, J. (2013). Contemporary medical tourism: Conceptualisation, culture and commodification. *Tourism Management*, *34*, 1–13. https://doi.org/10.1016/j.tourman.2012.05.009

Guiao, B. G. M., & Lacap, J. P. G. (2022). Effects of Environmental Sustainability Awareness and Altruism on Green Purchase Intention and Brand Evangelism. *Asian Journal of Business Research*, *12*(3), 43–62. https://doi.org/10.14707/ajbr.220134

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., Babeş-Bolyai, & Ray, S. (2023). Review of Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook. In *Structural Equation Modeling: A Multidisciplinary Journal* (Vol. 30, Issue 1). https://doi.org/10.1080/10705511.2022.2108813

Hair, J. F., Hult, G. T., Ringle, C. M., & Marko Sarstedt. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*. https://doi.org/10.1080/1743727x.2015.1005806

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Junarsin, E., Pangaribuan, C. H., Wahyuni, M., Hidayat, D., Putra, O. P. B., Maulida, P., & Soedarmono, W. (2022). Analyzing the relationship between consumer trust, awareness, brand preference, and purchase intention in green marketing. *International Journal of Data and Network Science*, *6*(3), 915–920. https://doi.org/10.5267/j.ijdns.2022.2.005

Keshminder, J. S., Singh, G. K. B., Wahid, Z. A. B., & Abdullah, M. S. (2019). Green sukuk: Malaysia taking the lead. *Malaysian Journal of Consumer and Family Economics*, *22*(Special Ed), 1–22.

Kirkland, K., Van Lange, P. A. M., Charalambous, N., Strauss, C., & Bastian, B. (2024). Beauty Builds Cooperation by Increasing Moral Concern for the Environment. *Environment and Behavior*, *56*(5–6), 355–382. https://doi.org/10.1177/00139165241291700

Kumar, A., & Basu, R. (2023). Do eco-labels trigger green product purchase intention among emerging market consumers? *Journal of Indian Business Research*, *15*(3), 466–492. https://doi.org/10.1108/JIBR-09-2022-0248

Li, D. (2025). Impact of green advertisement and environmental knowledge on intention of consumers to buy green products. *BMC Psychology*, *13*(1). https://doi.org/10.1186/s40359-025-02538-x

Mohd Suki, N. (2016). Green product purchase intention: impact of green brands, attitude, and knowledge. *British Food Journal*, *118*(12), 2893–2910. https://doi.org/10.1108/BFJ-06-2016-0295

Lin Jialing Lobo A Leckie C (2017). The influence off green brand innovativeness and value perception on brand loyality: the moderating role of green knowledge. *Journal of Strategic Marketing*. http://dx.doi.org/10.1080/0965254X.2017.1384044

Mosier, S. L. (2023). An evaluation of the role of US consumer's institutional trust for food eco-label preferences. *World Food Policy*, *9*(1), 50–71. https://doi.org/10.1002/wfp2.12054

Nguyen-Viet, B. (2022). Understanding the Influence of Eco-label, and Green Advertising on Green Purchase Intention: The Mediating Role of Green Brand Equity. *Journal of Food Products Marketing*, *28*(2), 87–103. https://doi.org/10.1080/10454446.2022.2043212

Nguyen, T. T., Hong Hung, R.-J., Lee, C.-H., & Thi Thu Nguyen, H. (2019). Determinants of Residents' E-Waste Recycling Behavioral Intention: A Case Study from Vietnam. In *Sustainability* (Vol. 11, Issue 1). https://doi.org/10.3390/su11010164

Parashar, P., Mathur, G., & Upadhyay, Y. (2021). Predicting green purchase intention through attitude and social norms: A study of eco-friendly products. *Indian Journal of Ecology*, *48*, 9–11. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85113818334&partnerID=40&md5=952e553dbd6bafeba1275e7a9232f25a

Rama, A. S., & Susanto, P. (2024). The effect of environmental awareness as a moderation on determinants of green product purchase intention. *Global Journal of Environmental Science and Management*, *10*(2), 699–712. https://doi.org/10.22035/gjesm.2024.02.17

Rihn, A., Wei, X., & Khachatryan, H. (2019). Text vs. logo: Does eco-label format influence consumers' visual attention and willingness-to-pay for fruit plants? An experimental auction approach. *Journal of Behavioral and Experimental Economics* , *82*. https://doi.org/10.1016/j.socec.2019.101452

Rodrigues, A. C., Pires, P. B., Delgado, C., & Santos, J. D. (2023). Green Cosmetics: Determinants of Purchase Intention. In *Handbook of Research on Achieving Sustainable Development Goals With Sustainable Marketing* (pp. 41–67). https://doi.org/10.4018/978-1-6684-8681-8.ch003

Sanny, L., Chairuddin, L., & Ninal, M. M. (2023). Environmental Attitude towards Green Purchasing Behavior in Jakarta. *2023 IEEE World AI IoT Congress, AIIoT 2023*, 792–796. https://doi.org/10.1109/AIIoT58121.2023.10174387

Sharma, N. K., & Kushwaha, G. S. (2019). Eco-labels: A tool for green marketing or just a blind mirror for consumers. *Electronic Green Journal*, *1*(42). https://doi.org/10.5070/g314233710

Siyal, S., Ahmed, M. J., Ahmad, R., Khan, B. S., & Xin, C. (2021). Factors influencing green purchase intention: Moderating role of green brand knowledge. *International Journal of Environmental Research and Public Health*, *18*(20). https://doi.org/10.3390/ijerph182010762

Sujanska, L., & Nadanyiova, M. (2024). Green Marketing and Brand Perception: Unveiling the Consumer Perspective. *Springer Proceedings in Business and Economics*, 951–962. https://doi.org/10.1007/978-981-97-0996-0_56

Syadzwina, M. N., & Astuti, R. D. (2021). Linking green skepticism to green purchase behavior on personal care products in Indonesia. *IOP Conference Series: Earth and Environmental Science*, *716*(1). https://doi.org/10.1088/1755-1315/716/1/012045

Tanveer, M., Din, M. U., Khan, M. F., Almurad, H. M., & Hasnin, E. A. H. (2024). Shaping consumer choices: The power of green brand knowledge, trust, and social responsibility. *Journal of Infrastructure, Policy and Development*, *8*(8). https://doi.org/10.24294/jipd.v8i8.5380

Tsai, C.-M., Kao, W.-Y., & Liu, W.-C. (2025). Navigating Sustainable Mobility in Taiwan: Exploring the Brand-Specific Effects of Perceived Green Attributes on the Green Purchase Intention for Battery Electric Vehicles. *Sustainability (Switzerland)*, *17*(3). https://doi.org/10.3390/su17030985

Vafaei-Zadeh, A., Nikbin, D., Seong Zhen, K., & Hanifah, H. (2025). Exploring the determinants of green electronics purchase intention through the stimulus-organism-response model. *Social Responsibility Journal*, *21*(3), 473–497. https://doi.org/10.1108/SRJ-02-2024-0109

Wang, Y. M., Zaman, H. M. F., & Alvi, A. K. (2022). Linkage of Green Brand Positioning and Green Customer Value With Green Purchase Intention: The Mediating and Moderating Role of Attitude Toward Green Brand and Green Trust. *SAGE Open*, *12*(2). https://doi.org/10.1177/21582440221102441

Yao, F., Li, B., Lv, Y., & Qin, X.-D. (2025). Eco-Labels and Sales Mode Selection Strategies for E-Commerce Platform Supply Chain. *Managerial and Decision Economics*, *46*(2), 1278–1296. https://doi.org/10.1002/mde.4433