

## Adoption Climate Change on Marketing Strategy : Green Product decision process model

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**Abstract:** *Climate change significantly affects consumer behavior, driving shifts in marketing strategies to accommodate evolving consumer values and expectations, the purpose of this study was to examine the effect of Environmental concerns on green Green purchasing decisions both directly and indirectly through Green willingness to purchase, in this study taking a sample of 100 respondents with the criteria of green cosmetic users who live in Surabaya, data analysis using Structural equation model with smart pls as the analysis tool, from the results it was found that Environmental concerns have a positive and significant effect on green Green purchasing decisions both directly and indirectly through Green willingness to purchase, and Green willingness to purchase has a positive and significant effect on green Green purchasing decisions.*

**Key Words:** Green purchasing decision, Green willingness to purchase, Environmental concerns

### Introduction

Climate change is significantly affecting consumer behavior, prompting shifts in marketing strategies to accommodate evolving consumer values and expectations (Kumari, 2024) As awareness of environmental issues grows, consumers are increasingly prioritizing sustainability in their purchasing decisions, forcing businesses to adapt their marketing approaches (Lopes et al., 2024), 2024) This shift is evident across multiple sectors, including food, transportation, and energy, where consumers are more likely to choose products and services that align with their environmental values (Nygaard, 2024) Green marketing plays an important role in promoting environmentally friendly products and services, aligning business practices with consumer values, and driving sustainable development (Bashar et al., 2023). The phenomenon not only enhances brand reputation but also drives innovation and competitive advantage in the market (Borah et al., 2023).

The skincare market in Indonesia has had a significant growth rate of 13.03% from 2011 to 2015, with projections showing a global cosmetics market value of \$463.5 billion by 2027 (Imani, 2024). This is supported by consumer behavior that is increasingly aware of the importance of skin health, leading to a trend where skincare is seen as more important than luxury (Andayani et al., 2024) Millennials, especially men, show a high level of awareness and demand for skincare products, driven by factors such as product attributes, health benefits, and environmental awareness (Dewi et al., 2022).

Positive attitudes towards green products, environmentally friendly packaging, and green labels increase consumer engagement, leading to increased demand for green offerings and driving a more sustainable market (Chang & Bayardalai, 2024) Many are aware of the

relevance of green marketing, but individuals do not always understand how their actions can contribute to preserving the environment and there are not many studies that reveal how the benefits of green marketing from the consumer side (Reddy et al., 2023) In addition, the lack of the beauty business sector to be studied is of particular interest to uncover given the potential for the future, because many studies on green marketing only focus on the energy sector (Prakash et al., 2024), 2023) In addition to this, the lack of the beauty business sector to be researched is an attraction to uncover given the large potential for the future, because many studies on green marketing only focus on the energy sector (Prakash et al., 2024).

The novelty in research is using an amalgamation model of various psychological and social factors that influence green purchasing behavior, with the aim of offering a more comprehensive understanding of consumer motivation (Duque Oliva et al., 2012), 2024) the study conducted in this study was to determine and explain the direct effect of green willingness to purchase and environmental concerns on green purchasing decisions and the indirect effect between environmental concerns on green purchasing decisions through green willingness to purchase, while the grand theory used is Theory Planned Behavior (TPB) This theory has played an important role in analyzing green consumer behavior, showing that intentions significantly influence purchasing decisions for green products (Zulfikar et al., 2023).

## Method

This study uses a survey method to test the theoretical model. The purposive sampling method was used in selecting the research sample, with target respondents who met the criteria, namely (1) green cosmetic users (2) aged 11-28 years and domiciled in Surabaya and the sample size was 100 respondents. To measure Green Purchase Decisions The survey instrument was developed by identifying appropriate measurements from a comprehensive literature review as written in the following table 1.

**Table 1.** Measurements

Variable	Items
Green purchasing decision (GPD) (Gustavo Jr et al., 2021)	<p><b>GPD1.</b> Preference to buy environmentally friendly products than non-green products</p> <p><b>GPD2.</b> Tendency to increase the purchase/use of green products for oneself</p> <p><b>GPD3.</b> Willingness to buy green products even if they are more expensive than non-green ones</p> <p><b>GPD4.</b> Recommending green products to friends and others</p>
Environmental concerns (EC) (Naalchi Kashi, 2020)	<p><b>EC1.</b> Preservation of nature and wildlife</p> <p><b>EC2.</b> Pleaser to purchase green products</p> <p><b>EC3.</b> Potential environmental impact of my purchase</p> <p><b>EC4.</b> Environmentally responsible person</p>

Green willingness to purchase (GWP)  
(Kamalanon et al., 2022)

**GWP1.** Willingness to buy a green product if available in Indonesia  
**GWP2.** Willingness to pay more for environmentally friendly products

structural equation model (SEM) with Smart PLS software is used to test the hypotheses proposed in this study, as for the hypotheses proposed are (1) whether Environmental concern has a positive and significant effect on Green purchasing decision (2) whether Green willingness to purchase (GWP) has a positive and significant effect on Green purchasing decision (3) whether environmental concern has a positive and significant effect on Green purchasing decision through Green willingness to purchase (GWP).

## Results and Discussion

Hypothesis testing is carried out using the bootstrapping technique with SmartPLS software Bootstrapping technique is a technique for recalculating sample data randomly to obtain the T-statistics value on each path. Based on the T-statistics value obtained, the significance of the influence between latent variables can be determined. The path coefficient value of the inner model is said to be significant provided that the T-statistics value > 1.96 or p-value = a (0.05) (Hair Jr et al., 2021). While the magnitude of the influence between latent variables on the path can be seen from the criteria for estimating the path coefficient for each path, there are two types of influence in PLS, namely direct effect and indirect effect.

**Tabel 2: Hypothesis Testing**

hypothesis	Coefficient	P-value	Decision
Environmental concern has a positive and significant effect on green purchasing decisions.	0.570	0.000	Supported
Green willingness to purchase (GWP) has a positive and significant effect on green purchasing decisions.	0.285	0.000	Supported
environmental concern has a positive and significant effect on green purchasing decisions through green willingness to purchase.	0.112	0.001	Supported

Source: processed data (2024)

## Discussion

The uncertain state of the environment has a positive impact on consumer and company awareness, buyers of cosmetic products, both men and women, are starting to realize that preserving the environment is as important as maintaining beauty, consumers are starting to realize that not only the content of environmentally friendly cosmetic ingredients, but also cosmetic packaging is also an assessment in buying green products (Mallick et al., 2024) coupled with the existence of digital media which also increases environmental awareness, especially among gen z teenagers (Mandić et al., 2024) based on phenomena in

the field and the results of research show that there is a positive and significant relationship between environmental awareness and green purchasing decisions.

Consumers' attitudes towards green products are positively influenced by their environmental concerns, which in turn affect their intention to purchase a wide range of products that have safe ingredients and do not harm the environment (Chanda et al., 2023) Consumers' awareness and concern for environmental issues significantly affect green purchasing behavior. Studies show that individuals who take environmental issues seriously are more likely to engage in green purchasing (Ogiemwonyi et al., 2023) Therefore, both statistical tests and previous literature support the second hypothesis which states that Green willingness to purchase (GWP) has a positive and significant effect on Green purchasing decisions.

Consumer concerns about erratic weather climate change and the many natural disasters that occur at this time, are evidence that the environment has changed, a lot of tree cutting and pollution that is increasingly rampant increases the impact of environmental damage, these concerns encourage consumers to pay more attention to the environment through interest in buying green products which ultimately makes consumers make purchases (Gomes et al., 2023), 2023) from previous research states that concern for the environment has a direct impact on intentions and actual purchases of green products (Vania & Ruslim, 2023), therefore the third hypothesis, namely environmental concern, has a positive and significant effect on Green purchasing decisions through Green willingness to purchase has been statistically proven.

## **Conclusion**

This study has proven that Indonesian people have begun to be aware of environmental changes that lead to their concern for the stability of ecosystems and the environment, green marketing as a green marketing concept which in the process aims to preserve the environment from the business side and is seen as a powerful strategy to increase the value of a product that is sold, especially for consumer segments who care about the environment, has been proven. environmental concern and green willingness to purchase have a direct effect on the attitude to buy green products either directly or indirectly through the green willingness to purchase variable. The results of this study are expected to be able to increase our awareness, especially companies, to always move forward in strategizing not only about momentary profit but business sustainability through this green marketing strategy.

## **References**

- Andayani, Dwi, Wika Islaqul Aisyah, and Yulianti Khoirun Nisa. 2024. "ISLAMIC BRAND PADA PRODUK WARDAH." *EKSYA: Jurnal Ilmiah Ekonomi Syariah* 2(1):55–69.
- Bashar, Shafiul, Daoping Wang, and Marwah Rafiq. 2023. "Adoption of Green Supply Chain Management in Developing Countries: Role of Consumer Cooperation, Eco-Design, and Green Marketing." *Environmental Science and Pollution Research* 30(40):92594–610.
- Borah, Prasad Siba, Courage Simon Kofi Dogbe, Wisdom Wise Kwabla Pomegbe, Bylon Abeeku

- Bamfo, and Lawrence Kwabena Hornuvo. 2023. "Green Market Orientation, Green Innovation Capability, Green Knowledge Acquisition and Green Brand Positioning as Determinants of New Product Success." *European Journal of Innovation Management* 26(2):364–85.
- Chanda, Razib Chandra, Salmi Mohd Isa, and Tofayel Ahmed. 2023. "Factors Influencing Customers' Green Purchasing Intention: Evidence from Developing Country." *Journal of Science and Technology Policy Management*.
- Chang, Joshua C., and Munkhsoyol Bayardalai. 2024. "A Sustainability Perspective-The Influence of Green Marketing on Mongolian Consumer Attitudes." *Advances in Management and Applied Economics* 14(6):1–10.
- Dewi, Wayan Weda Asmara, Nufian Febriani, Nia Ashton Destrity, Dian Tamitiadini, Azizun Kurnia Illahi, Wifka Rahma Syaui, Fitria Avicenna, Diyah Ayu Amalia Avina, and Bambang Dwi Prasetyo. 2022. *Teori Perilaku Konsumen*. Universitas Brawijaya Press.
- Duque Oliva, Edison Jair, Javier A. Sánchez-Torres, Francisco-Javier Arroyo-Cañada, Ana Argila-Irurita, Jaime Gil-La Fuente, Sandra-Milena Palacio-López, and Juan-Pablo Arrubla-Zapata. 2024. "Green Buying Behaviour: An Integrated Model." *Sustainability* 16(11):4441.
- Gomes, Sofia, João M. Lopes, and Sónia Nogueira. 2023. "Willingness to Pay More for Green Products: A Critical Challenge for Gen Z." *Journal of Cleaner Production* 390:136092.
- Gustavo Jr, Jorge Ubirajara, Luiz Reni Trento, Michele de Souza, Giancarlo Medeiros Pereira, Ana Beatriz Lopes de Sousa Jabbour, Nelson Oly Ndubisi, Charbel Jose Chiappetta Jabbour, Miriam Borchardt, and Leandro Zvirtes. 2021. "Green Marketing in Supermarkets: Conventional and Digitized Marketing Alternatives to Reduce Waste." *Journal of Cleaner Production* 296:126531.
- Hair Jr, Joseph F., G. Tomas M. Hult, Christian M. Ringle, Marko Sarstedt, Nicholas P. Danks, and Soumya Ray. 2021. *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*. Springer Nature.
- Imani, Adila Zahrotin Malikha. 2024. "Diplomasi Komersial Korea Selatan Dalam Meningkatkan Ekspor Produk Kecantikan Korea Selatan (K-Beauty) Ke Indonesia Tahun 2018-2021."
- Kamalanon, Piyanoot, Ja-Shen Chen, and Tran-Thien-Y. Le. 2022. "'Why Do We Buy Green Products?' An Extended Theory of the Planned Behavior Model for Green Product Purchase Behavior." *Sustainability* 14(2):689.
- Kumari, Akancha. 2024. "Transforming Business for a Sustainable Future Using Green Marketing." *Multidisciplinary Approach to Information Technology in Library and Information Science* 132–50.

- Lopes, João M. M., Sofia Gomes, and Tiago Trancoso. 2024. "Navigating the Green Maze: Insights for Businesses on Consumer Decision-Making and the Mediating Role of Their Environmental Concerns." *Sustainability Accounting, Management and Policy Journal*.
- Mallick, Swapna Swarupa, Sweta Leena Hota, Arya Kumar, and Himanshu Agarwall. 2024. "The Influence of Eco-Friendly Marketing Tools on Sustainable Consumer Choices: A Comprehensive Review Study." *Environment and Social Psychology* 9(8).
- Mandić, Ante, Sandeep K. Walia, and S. Mostafa Rasoolimanesh. 2024. "Gen Z and the Flight Shame Movement: Examining the Intersection of Emotions, Biospheric Values, and Environmental Travel Behaviour in an Eastern Society." *Journal of Sustainable Tourism* 32(8):1621–43.
- Naalchi Kashi, Alireza. 2020. "Green Purchase Intention: A Conceptual Model of Factors Influencing Green Purchase of Iranian Consumers." *Journal of Islamic Marketing* 11(6):1389–1403.
- Nygaard, Arne. 2024. "Green Promotion and Marketing Communication." Pp. 63–81 in *Green Marketing and Entrepreneurship*. Springer.
- Ogiemwonyi, Osarodion, Mohammad Nurul Alam, Rashed Alshareef, Majed Alsolamy, Noor Azlinna Azizan, and Norazuwa Mat. 2023. "Environmental Factors Affecting Green Purchase Behaviors of the Consumers: Mediating Role of Environmental Attitude." *Cleaner Environmental Systems* 10:100130.
- Prakash, Gyan, Sahiba Sharma, Anil Kumar, and Sunil Luthra. 2024. "Does the Purchase Intention of Green Consumers Align with Their Zero-Waste Buying Behaviour? An Empirical Study on a Proactive Approach towards Embracing Waste-Free Consumption." *Heliyon* 10(3).
- Reddy, K. Pradeep, Venkateswarlu Chandu, Sambhana Srilakshmi, Elia Thagaram, Ch Sahyaja, and Bernard Osei. 2023. "Consumers Perception on Green Marketing towards Eco-Friendly Fast Moving Consumer Goods." *International Journal of Engineering Business Management* 15:18479790231170960.
- Vania, Clarissa, and Tommy Setiawan Ruslim. 2023. "The Effect of Environmental Concern, Attitude, Green Brand Knowledge, Green Perceived Value on Green Purchase Behavior with Green Purchase Intention as a Mediating Variable on Green Beauty Products." *Jurnal Ilmiah Manajemen Dan Bisnis* 9(3):325.
- Zulfikar, Rizka, Nanang Suryadi, Yuditha Valen Prasarry, and Sarah Barqiah. 2023. "Penggunaan Theory of Planned Behavior Dalam Kajian Perilaku Konsumen Hijau." *JKBM (JURNAL KONSEP BISNIS DAN MANAJEMEN)* 10(1):28–41.