Sciences du Nord Economics and Business
Vol. 2, No. 02, Desember 2025: pp. 12-19
E-ISSN: 3046-5168
P-ISSN: 3047-5643
DOI: 10.71238/sneb.v2i02.97

The Impact of Consumer Environmental Awareness and Income Level on Green Product Consumption in Indonesia

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ARTICLE HISTORY
Received Desember, 2025 **Revised Desember, 2025** **Accepted Desember, 2025**

ABSTRACT

This study investigates the impact of consumer environmental awareness and income level on green product consumption in Indonesia using a quantitative research approach. Data were collected from 125 respondents through a structured questionnaire measured on a five-point Likert scale. The collected data were analyzed using SPSS version 25, employing descriptive statistics, validity and reliability tests, and multiple regression analysis. The results reveal that environmental awareness has a positive and significant effect on green product consumption, indicating that consumers who are more knowledgeable and concerned about environmental issues are more likely to purchase environmentally friendly products. Income level also shows a significant positive influence, suggesting that higher purchasing power enables consumers to adopt green consumption practices more consistently. Simultaneously, environmental awareness and income level explain a substantial proportion of the variance in green product consumption behavior. These findings highlight that both psychological and economic factors shape green consumption in Indonesia. The study provides important implications for policymakers and businesses in designing strategies that promote sustainable consumption through environmental education and improved affordability of green products.

Keywords: *Consumer Behavior**;** Environmental Awareness**;** Green Product Consumption**;** Income Level**;** Sustainable Consumption*

INTRODUCTION

In recent decades, environmental degradation has emerged as one of the most critical global challenges, driven largely by unsustainable patterns of production and consumption. Issues such as climate change, pollution, biodiversity loss, and excessive waste generation have intensified concerns regarding the long-term sustainability of economic growth. In response, the concept of sustainable consumption has gained increasing attention from policymakers, researchers, and businesses worldwide [1], [2]. One key aspect of sustainable consumption is the adoption of green products, which are designed to minimize negative environmental impacts throughout their life cycle, including production, distribution, usage, and disposal [3], [4].

Consumer behavior plays a central role in the transition toward environmental sustainability. Among the various determinants of green consumption, environmental awareness has been widely recognized as a fundamental psychological factor influencing individuals' attitudes and purchasing decisions [5], [6]. Consumers who possess a higher level of environmental awareness tend to have greater knowledge about environmental issues, stronger pro-environmental values, and a heightened sense of responsibility toward ecological preservation. This awareness often translates into a preference for eco-friendly products, willingness to change consumption habits, and support for environmentally responsible brands. Consequently, understanding the role of environmental awareness is essential for promoting green consumption behavior, particularly in developing economies where environmental education and awareness levels may vary significantly [7], [8].

In addition to psychological factors, socio-economic characteristics—especially income level—are also important determinants of green product consumption. Green products are

frequently perceived as more expensive than conventional alternatives due to higher production costs, eco-certifications, and sustainable sourcing practices [9], [10]. As a result, consumers' purchasing power can influence their ability and willingness to choose environmentally friendly products. Higher-income consumers may have greater financial flexibility to prioritize sustainability considerations, while lower-income consumers may focus primarily on price and basic needs, even if they are environmentally conscious. Therefore, income level may act as either an enabling or constraining factor in the adoption of green products [7].

Indonesia provides a particularly relevant context for examining green consumption behavior. As one of the largest emerging economies in Southeast Asia, Indonesia faces significant environmental challenges, including deforestation, plastic waste, air and water pollution, and rapid urbanization. At the same time, Indonesia has a large and growing middle class, increasing consumer spending, and expanding access to information through digital media. These dynamics create both opportunities and challenges for the development of a green consumer market. While public awareness of environmental issues has shown signs of improvement, the extent to which this awareness translates into actual green purchasing behavior—especially across different income groups—remains an important empirical question.

Although previous studies have explored factors influencing green consumption in various countries, empirical evidence from Indonesia remains relatively limited, particularly studies that simultaneously examine psychological and economic factors. Many existing studies focus primarily on attitudes, intentions, or environmental concern, without adequately considering the role of income level in shaping actual consumption behavior. This creates a research gap in understanding how environmental awareness and income interact to influence green product consumption in the Indonesian context. Addressing this gap is crucial for developing effective policies and marketing strategies that promote sustainable consumption across diverse segments of society.

Therefore, this study aims to analyze the impact of consumer environmental awareness and income level on green product consumption in Indonesia using a quantitative approach. By employing survey data from 125 respondents and analyzing the data using SPSS version 25, this research seeks to provide empirical evidence on the relative influence of these factors. The findings are expected to contribute to the literature on sustainable consumer behavior and offer practical insights for policymakers, environmental organizations, and businesses in designing initiatives that encourage wider adoption of green products in Indonesia.

LITERATURE REVIEW

Green Product Consumption

Green product consumption refers to consumers' purchasing, usage, and disposal behaviors that aim to minimize negative environmental impacts and support environmental sustainability, with green products typically characterized by attributes such as energy efficiency, recyclability, reduced pollution, the use of eco-friendly materials, and compliance with environmental standards or certifications [11], [12]. Within the sustainable consumption framework, green consumption reflects a shift from purely economic decision-making toward a more balanced consideration of economic, environmental, and social dimensions [11]. Previous studies indicate that green product consumption is shaped by a combination of internal and external factors, including individual values, attitudes, environmental awareness, social norms, and economic conditions; however, although positive environmental attitudes often lead to favorable intentions, the translation of these intentions into actual purchasing behavior may be constrained by factors such as price sensitivity, product availability, and perceived quality. Consequently, green consumption represents a complex behavior that requires an integrated understanding of both psychological and socio-economic determinants.

Consumer Environmental Awareness

Environmental awareness refers to the extent to which individuals are informed about environmental issues and understand the consequences of human activities on the natural

environment, encompassing knowledge of environmental problems, concern for ecological sustainability, and a sense of personal responsibility to engage in environmentally friendly behavior [13]–[15]. From a behavioral perspective, environmental awareness is regarded as a key antecedent of pro-environmental attitudes and actions, including green purchasing behavior. Empirical studies consistently demonstrate a positive relationship between environmental awareness and green product consumption, showing that consumers with higher levels of awareness are more likely to pay attention to eco-labels, prefer products with minimal environmental impact, and support companies that demonstrate environmental responsibility [7], [10]. Moreover, environmental awareness strengthens consumers' moral obligation to protect the environment, thereby increasing their motivation to choose green products over conventional alternatives; however, several studies also indicate that awareness alone may not be sufficient to guarantee green purchasing behavior, as economic constraints and situational factors can moderate the translation of awareness into actual consumption decisions.

Income Level and Green Consumption

Income level is an important socio-economic factor that influences consumers' purchasing decisions and consumption patterns, particularly in the context of green products, which are often associated with higher prices due to sustainable production processes and environmental certifications [16], [17]. Consumers with higher income levels generally possess greater purchasing power, enabling them to absorb the price premiums attached to environmentally friendly products and prioritize sustainability considerations in their consumption choices. Numerous studies have found a positive relationship between income level and green product consumption, indicating that higher-income consumers are more likely to purchase green products and adopt sustainable lifestyles, often perceiving such products as symbols of quality consumption or social responsibility [18]. In contrast, lower-income consumers tend to prioritize affordability and basic needs, which can limit their ability to consistently purchase green products despite having positive environmental attitudes, thereby demonstrating that income level can function as both a facilitating and constraining factor in environmentally responsible consumption behavior.

Conceptual Framework and Hypotheses Development

Based on the theoretical and empirical literature, this study proposes a conceptual framework in which consumer environmental awareness and income level are positioned as independent variables that influence green product consumption as the dependent variable. Environmental awareness is expected to have a positive effect on green product consumption by shaping consumers' attitudes, values, and motivations toward environmental sustainability, while income level is also anticipated to exert a positive influence by enhancing consumers' purchasing power and their ability to prioritize environmental considerations in purchasing decisions. Accordingly, this framework forms the basis for the formulation of the research hypotheses that examine both the individual and simultaneous effects of environmental awareness and income level on green product consumption.

H1: Consumer environmental awareness has a positive and significant effect on green product consumption in Indonesia.

H2: Income level has a positive and significant effect on green product consumption in Indonesia.

H3: Consumer environmental awareness and income level simultaneously have a significant effect on green product consumption in Indonesia.

RESEARCH METHODS

Research Design

This study employs a quantitative research design to examine the impact of consumer environmental awareness and income level on green product consumption in Indonesia. A quantitative approach is considered appropriate because it allows for the measurement of relationships between variables using numerical data and statistical analysis. The research adopts a

cross-sectional survey design, in which data are collected from respondents at a single point in time to capture their perceptions, attitudes, and consumption behavior related to green products.

Population and Sample

The population of this study consists of consumers in Indonesia who have experience purchasing consumer products, including green or environmentally friendly products. Due to time and accessibility constraints, a non-probability sampling technique was applied, specifically convenience sampling. This technique enables the researcher to collect data from respondents who are easily accessible and willing to participate in the study. A total of 125 respondents were included in the final sample, which meets the minimum sample size requirement for basic quantitative analysis using multiple regression. The sample size is considered adequate to provide initial empirical insights into the relationships among the studied variables.

Data Collection Method

Primary data were collected using a structured questionnaire distributed to respondents either online or offline. The questionnaire was designed to capture respondents' demographic information, including income level, as well as their perceptions and behaviors related to environmental awareness and green product consumption. Prior to distribution, the questionnaire items were adapted from relevant literature to ensure content validity and clarity. All measurement items were assessed using a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). This scale was chosen to allow respondents to express varying degrees of agreement with each statement and to facilitate statistical analysis.

Research Variables and Measurement

This study involves three main variables: consumer environmental awareness, income level, and green product consumption. Consumer environmental awareness, as an independent variable, refers to respondents' knowledge, concern, and consciousness regarding environmental issues and sustainability, and is measured through indicators such as awareness of environmental problems, concern for environmental protection, and consideration of environmental impacts in daily consumption decisions. Income level, also treated as an independent variable, represents respondents' monthly income as an indicator of purchasing power and is measured using income categories commonly applied in the Indonesian context, with respondents selecting the income range that best reflects their monthly earnings. Green product consumption, as the dependent variable, refers to the extent to which consumers prefer, purchase, and use environmentally friendly products, and is measured through indicators including preference for green products, frequency of purchasing eco-friendly products, and willingness to choose green products over conventional alternatives.

Data Analysis Technique

The collected data were processed and analyzed using the Statistical Package for the Social Sciences (SPSS) version 25 through several stages of analysis. First, descriptive statistical analysis was conducted to describe respondents' demographic characteristics and to summarize the distribution of responses for each research variable. Second, validity and reliability tests were performed to ensure the quality of the measurement instruments, with validity assessed through correlation analysis between each item and its corresponding construct and reliability evaluated using Cronbach's alpha coefficient. Third, multiple regression analysis was employed to test the proposed hypotheses and examine the effects of consumer environmental awareness and income level on green product consumption, allowing for the assessment of both partial and simultaneous influences of the independent variables on the dependent variable, with a significance level of 0.05 applied as the criterion for hypothesis testing.

RESULTS AND DISCUSSION

Respondent Characteristics

This study involved 125 respondents who are active consumers in Indonesia. The demographic profile shows variation in income levels, which is important for examining purchasing power differences in green product consumption.

Table 1. Respondent Characteristics

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	58	46.4
	Female	67	53.6
Monthly Income	< IDR 3,000,000	34	27.2
	IDR 3,000,000 – 6,000,000	51	40.8
	> IDR 6,000,000	40	32.0
Age	18–25 years	29	23.2
	26–35 years	57	45.6
	> 35 years	39	31.2

Table 1 presents the demographic characteristics of the respondents involved in this study, showing a relatively balanced and representative profile for analyzing green product consumption behavior. In terms of gender, female respondents slightly outnumber male respondents, with females accounting for 53.6% of the sample and males 46.4%, suggesting that both genders are adequately represented and allowing for a comprehensive view of consumer behavior. Regarding monthly income, the largest proportion of respondents falls within the middle-income category of IDR 3,000,000–6,000,000 (40.8%), followed by those earning more than IDR 6,000,000 (32.0%) and those earning less than IDR 3,000,000 (27.2%). This distribution indicates that the sample includes consumers with varying levels of purchasing power, which is important for examining the role of income in green product consumption. In terms of age, the majority of respondents are in the 26–35 year age group (45.6%), followed by respondents over 35 years old (31.2%) and those aged 18–25 years (23.2%). This suggests that the sample is dominated by individuals in their productive and economically active years, who are more likely to make independent consumption decisions, thereby strengthening the relevance of the findings for understanding green consumption behavior in Indonesia.

Descriptive Statistics

Descriptive analysis was conducted to examine respondents' perceptions of environmental awareness, income level, and green product consumption.

Table 2. Descriptive Statistics of Research Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Environmental Awareness	125	2.10	5.00	4.12	0.54
Income Level	125	1.00	3.00	2.05	0.79
Green Product Consumption	125	2.00	5.00	3.87	0.61

Table 2 presents the descriptive statistics of the research variables, providing an overview of respondents' perceptions and behaviors related to environmental awareness, income level, and green product consumption. The environmental awareness variable shows a relatively high mean value of 4.12 with a standard deviation of 0.54, indicating that, on average, respondents possess a strong awareness and concern regarding environmental issues, with relatively low variability among responses. This suggests a generally consistent level of environmental consciousness across the sample. Income level has a mean value of 2.05 with a standard deviation of 0.79, reflecting a moderate distribution of respondents across the predefined income categories and indicating noticeable differences in purchasing power among participants. Meanwhile, green product

consumption records a mean score of 3.87 with a standard deviation of 0.61, suggesting that respondents demonstrate a moderate to high tendency to purchase and use environmentally friendly products, although variations in behavior still exist.

Validity and Reliability Results

Table 2 presents the descriptive statistics of the research variables, indicating that respondents generally exhibit a high level of environmental awareness, with a mean score of 4.12 and a relatively low standard deviation of 0.54, suggesting consistent awareness across the sample. The income level variable shows a mean value of 2.05 with a standard deviation of 0.79, reflecting a moderate distribution of respondents across income categories and highlighting differences in purchasing power among participants. Meanwhile, green product consumption records a mean score of 3.87 with a standard deviation of 0.61, indicating a moderate to high tendency among respondents to purchase environmentally friendly products, although some variation in consumption behavior remains. Overall, these results suggest that while environmental awareness among consumers is relatively strong, differences in income level may influence the extent to which such awareness is translated into actual green product consumption.

Multiple Regression Analysis

Multiple regression analysis was used to examine the effect of environmental awareness and income level on green product consumption.

Table 4. Regression Analysis Results

Variable	B	Std. Error	Beta	t-value	Sig.
Constant	1.215	0.412	—	2.957	0.004
Environmental Awareness	0.462	0.081	0.498	5.713	0.000
Income Level	0.318	0.067	0.361	4.754	0.000

Table 4 presents the results of the multiple regression analysis examining the effects of environmental awareness and income level on green product consumption. The constant value of 1.215 ($p = 0.004$) indicates the baseline level of green product consumption when all independent variables are held constant. Environmental awareness shows a positive and highly significant effect on green product consumption, with an unstandardized coefficient of 0.462 and a standardized beta coefficient of 0.498 ($t = 5.713$, $p < 0.001$), suggesting that an increase in consumers' environmental awareness substantially enhances their likelihood of purchasing green products. Income level also exhibits a positive and significant influence on green product consumption, with an unstandardized coefficient of 0.318 and a standardized beta coefficient of 0.361 ($t = 4.754$, $p < 0.001$), indicating that higher income levels increase consumers' ability and willingness to engage in green consumption. Comparatively, environmental awareness has a stronger effect than income level, highlighting the dominant role of psychological factors while also confirming the importance of economic capacity in shaping environmentally responsible consumption behavior.

The model fit results indicate a strong explanatory power of the regression model, with an R value of 0.687, suggesting a substantial correlation between the independent variables and green product consumption. The R Square value of 0.472 shows that 47.2% of the variation in green product consumption can be explained by environmental awareness and income level, while the adjusted R Square of 0.463 confirms the robustness of the model after accounting for the number of predictors. The standard error of 0.45 indicates an acceptable level of prediction accuracy, demonstrating that the model provides a reasonably good fit and that environmental awareness and income level are important determinants of green product consumption.

Discussion

The results confirm that consumer environmental awareness significantly influences green product consumption in Indonesia. The strong positive coefficient indicates that consumers who are more knowledgeable and concerned about environmental issues tend to show a higher preference for purchasing environmentally friendly products. This finding supports behavioral theories that emphasize the importance of awareness, knowledge, and cognitive processes in shaping pro-

environmental attitudes and sustainable consumption behavior, suggesting that increased understanding of environmental issues can encourage consumers to make greener purchasing decisions [13], [19], [20].

Income level also demonstrates a significant positive effect on green product consumption, highlighting the crucial role of economic capacity in facilitating environmentally responsible behavior. Although consumers may possess strong environmental awareness and positive attitudes toward sustainability, limited income can restrict their ability to consistently purchase green products, which are often priced higher than conventional alternatives. This finding reinforces the notion that green consumption in developing countries such as Indonesia is not solely driven by values and attitudes, but is also shaped by economic constraints that influence consumers' actual purchasing behavior.

The relatively high explanatory power of the model indicates that psychological and economic factors jointly play an important role in shaping green product consumption. Environmental awareness alone may be insufficient to drive consistent green purchasing behavior unless it is supported by adequate income. From a policy perspective, these findings suggest that efforts to promote green consumption should integrate environmental education and awareness-building initiatives with economic instruments, such as subsidies, tax incentives, or price support mechanisms for green products. For businesses, the results highlight the importance of offering affordable green alternatives and communicating environmental benefits effectively across different income segments, thereby supporting broader adoption of sustainable consumption practices in Indonesia.

CONCLUSION

This study concludes that consumer environmental awareness and income level play significant roles in influencing green product consumption in Indonesia, with environmental awareness emerging as the strongest determinant, indicating that consumers with greater understanding and concern for environmental issues are more likely to engage in environmentally friendly purchasing behavior and underscoring the importance of environmental education and information dissemination in promoting sustainable consumption practices. Income level also has a positive and significant effect, demonstrating that economic capacity remains a crucial enabling factor, as limited income can restrict consumers' ability to consistently purchase green products that are often associated with higher prices, thereby revealing an attitude–behavior gap in green consumption, particularly in developing countries. Overall, these findings suggest that efforts to promote green product consumption in Indonesia require an integrated approach that combines enhanced environmental awareness with economic support mechanisms, encouraging policymakers to implement educational campaigns and financial incentives to improve the affordability of green products, while urging businesses to develop cost-effective and accessible environmentally friendly offerings; future research is recommended to include additional variables and larger samples to further deepen understanding of sustainable consumer behavior.

REFERENCES

[1] Q. Wang, A. Tweedy, and H. G. Wang, "Reducing plastic waste through legislative interventions in the United States: Development, obstacles, potentials, and challenges," *Sustain. Horizons*, vol. 2, no. February, p. 100013, 2022, doi: 10.1016/j.horiz.2022.100013.

[2] V. M. Anitha Rajathi and B. Reshma Parveen, "A conceptual study on impact of green manufacturing practices," *Open Access Res. J. Eng. Technol.*, vol. 6, no. 2, pp. 087–094, 2024, doi: 10.53022/oarjet.2024.6.2.0024.

[3] R. Kumar *et al.*, "Impacts of Plastic Pollution on Ecosystem Services, Sustainable Development Goals, and Need to Focus on Circular Economy and Policy Interventions," *Sustainability*, vol. 13, no. 17. 2021. doi: 10.3390/su13179963.

[4] M. A. Naeem, R. Gul, S. Farid, S. Karim, and B. M. Lucey, "Assessing linkages between alternative energy markets and cryptocurrencies," *J. Econ. Behav. Organ.*, vol. 211, pp. 513–529, 2023, doi: https://doi.org/10.1016/j.jebo.2023.04.035.

[5] S. I. Khattak, M. Ahmad, Z. U. Khan, and A. Khan, "Exploring the impact of innovation, renewable energy

consumption, and income on CO2 emissions: new evidence from the BRICS economies," *Environ. Sci. …*, 2020, doi: 10.1007/s11356-020-07876-4.

[6] E. Purwanto, A. Yulianto, N. Biasini, J. R. Octavia, and V. O. Wati, "Environmental awareness and intention to reduce food waste among urban people," in *IOP Conference Series: Earth and Environmental Science*, 2023, vol. 1168, no. 1, p. 12048.

[7] A. Ardhiyansyah and Y. Iskandar, "Why do consumers buy paper bags? The Impact of Habit, Consumer Awareness and Sustainability as Drivers of Environmentally Responsible Consumer Behavior," *Es Econ. Entrep.*, vol. 2, no. 02, pp. 61–75, 2023, doi: 10.58812/esee.v2i2.193.

[8] H. Hamoudi and C. Avilés-Palacios, "Awareness Campaigns in a Horizontally Differentiated Market with Environmentally Conscious Consumers, Private Versus Public Duopoly," *Int. J. Environ. Res. Public Health*, vol. 19, no. 19, p. 12891, 2022.

[9] S. Rhein and M. Schmid, "Consumers' awareness of plastic packaging: More than just environmental concerns," *Resour. Conserv. Recycl.*, vol. 162, no. July, p. 105063, 2020, doi: 10.1016/j.resconrec.2020.105063.

[10] N. Ersoy, "A cross-section from the consumer perspective on sustainable nutrition: consumer awareness and motivation status," *Environ. Sci. Pollut. Res.*, pp. 1–6, 2023.

[11] P. Mancini, A. Marchini, and M. Simeone, "Which are the sustainable attributes affecting the real consumption behaviour? Consumer understanding and choices," *Br. Food J.*, vol. 119, no. 8, pp. 1839–1853, 2017, doi: 10.1108/BFJ-11-2016-0574.

[12] C. C. Lee and J. Hussain, "Carbon neutral sustainability and green development during energy consumption," *Innovation and Green Development*. Elsevier, 2022.

[13] B. McCarthy and H. B. Liu, "'Waste not, want not': Exploring green consumers' attitudes towards wasting edible food and actions to tackle food waste," *Br. Food J.*, vol. 119, no. 12, pp. 2519–2531, 2017, doi: 10.1108/BFJ-03-2017-0163.

[14] M. W. Hanif, S. Hafeez, and M. A. Afridi, "Does wastophobia bring sustainability in consumers' responsible behavior? A case of electricity waste management," *Int. J. Energy Sect. Manag.*, vol. 17, no. 2, pp. 265–287, 2023.

[15] M. Shen and J. Wang, "The impact of pro-environmental awareness components on green consumption behavior: The moderation effect of consumer perceived cost, policy incentives, and face culture," *Front. Psychol.*, vol. 13, p. 580823, 2022.

[16] B. Bingawati, G. Wiguna, and E. Evelyn, "Analisa Literasi Keuangan Pada Perilaku Pengelolaan Keuangan Petani Kopi Dan Cengkeh Di Jawa Tengah," *J. Pariwisata Bisnis Digit. dan Manaj.*, vol. 2, no. 1, pp. 30–38, 2023, doi: 10.33480/jasdim.v2i1.3909.

[17] X. Zheng, Y. Wang, Y. Zhang, T. Deng, and Y. Yang, "Impacts of COVID-19 Pandemic on Dietary Consumption among Chinese Residents: Evidence from Provincial-Level Panel Data," *Int. J. Environ. Res. Public Health*, vol. 19, no. 13, 2022, doi: 10.3390/ijerph19137612.

[18] A. Haldar, S. Sucharita, D. P. Dash, N. Sethi, and ..., "The effects of ICT, electricity consumption, innovation and renewable power generation on economic growth: An income level analysis for the emerging economies," *J. Clean. …*, 2023.

[19] Y. K. Dwivedi *et al.*, "Setting the future of digital and social media marketing research: Perspectives and research propositions," *Int. J. Inf. Manage.*, vol. 59, p. 102168, 2021, doi: https://doi.org/10.1016/j.ijinfomgt.2020.102168.

[20] M. Matharu, N. Gupta, and V. Swarnakar, "Efforts are made but food wastage is still going on: a study of motivation factors for food waste reduction among household consumers," *Asia-Pacific J. Bus. Adm.*, vol. 14, no. 2, pp. 244–264, 2022, doi: 10.1108/APJBA-07-2021-0303.