The influence of green products on green purchase intention mediated by green brand awareness

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ABSTRACT
Consumer behavior has shifted to concern for the environment. Creating green products has become a big agenda for every entrepreneur, and they must continue to follow global changes. This study aims to analyze how green products can affect green purchase intention mediated by green brand awareness. This study uses quantitative methods to determine the relationship between variables. The sample used in this study was 120 respondents. Questionnaires were used for data collection and analysis using SmartPLS software version 3. The analysis results confirm that green products can positively and significantly affect green purchase intention and partial green brand awareness. Green brand awareness can also affect green purchase intention positively and significantly. At the same time, green brand awareness can mediate the relationship between green products and green purchase intention positively and significantly.

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1. INTRODUCTION
In recent years, the concepts of environment and development have occupied the world agenda to such an extent that it is impossible to evaluate these concepts separately. When the environment and development are conceptually assessed, they are considered concepts that contain indispensable elements and arouse each other to ensure the continuation of humanity. The fact that countries are in technological and economic competition has influenced developing trade and its spread worldwide (Li et al., 2020; Shenkar et al., 2021). The rapid development of industry, urbanization, modern agriculture, technology, and economic developments have disrupted the balance of resources and needs, and people's efforts to improve their well-being have almost begun to threaten their future. In this way, efforts to eliminate the contradictions between economic development and the protection of environmental values have led to the development of the concept of sustainable development, especially in the Indonesian context.

Attitudes toward the environment have changed significantly in line with social, economic, and political developments and concerns caused by environmental problems (Brenton, 2019). With increasing environmental awareness, the demand for eco-friendly products has increased (Chen et al., 2021; Nguyen et al., 2020). Consumers prefer products that can be recycled, use renewable resources in production, and do not harm nature. This trend has supported the formation of the concept of green products. Green products are defined as products that do not harm nature, do not consume natural resources, and are easily recycled (Sdrolia & Zaratiadis, 2019). Green products are considered one of the most important elements contributing to development and growth. Green products are goods or things that consumers buy consciously for environmental sustainability and a better standard of living. In other words, green products are defined as eco-friendly products.
(Kamalanon et al., 2022). When green products expire, they can be recycled by reusing harmless materials by separation. Green products refer to products that can save resources and energy through enterprises during production and do not harm nature and human health. Green products can also be understood as products that protect natural life by protecting the environment, resources, and energy (Amberg & Fogarassy, 2019; Sdrolia & Zarotiadi, 2019). To have an informed consumer choice, consumers must have enough information. Lack of consumer knowledge hinders green buying attitudes. Consumers and manufacturers are more sensitive and conscious about using eco-friendly products than in previous years. This situation contributes to the company’s desire to produce environmentally friendly products.

Today, with lifestyle changes, expectations are also changing. Individual consciousness has also led to some transformations in their consumption habits. As a result of the benefits of modern life, the need to switch to nature has become a determining factor in the transformation of consumer habits. At the point reached in marketing, the situation described as green marketing or consumption of green products considered an extension of the environmental approach has become an option among consumers. In this regard, the increased consumption of green products has attracted attention recently (Testa et al., 2021). Several studies have proven that green products can influence green purchase intention (Samsudin & Hotimah, 2024; Susminingsih et al., 2024). Other studies show different results, where the perceived value of green products does not have a significant effect on green purchase intention (Adelina & Hutabarat, 2023). Green purchase intention means buying environmentally friendly products or sustainable products that can be recycled and benefit the environment and avoid products that harm the environment and society (A. Sharma & Foropon, 2019; Wijekoon & Sabri, 2021). Green purchase intention is related to an individual’s propensity to purchase and use products with eco-friendly features when purchase consideration is based on product characteristics. Green product quality, such as clear product ingredient information, eco-labeling, product appearance, and overall user-friendliness assurance, influences consumers’ eco-friendly purchasing decisions. Manufacturers are also positioning the environmental benefits of green products in the minds of consumers to evoke purchasing decisions (A. P. Sharma, 2021; Zhang & Dong, 2020). Green purchase intention refers to the likelihood that consumers will purchase a particular product resulting from their environmental view and represents the extent to which consumers are prepared to purchase products and services from companies with a reputation for being environmentally friendly.

Green purchase intention refers to the tendency of consumers to buy an environmentally friendly product. Consumers purchase these brands when they believe they offer the right quality or product features. On the other hand, purchase intention can be understood as a combination of consumer interest in buying a product and the possibility of buying it (Sohn & Kim, 2020). Consumers have an awareness of the importance of environmental sustainability. Green brand awareness can be interpreted as the ability of consumers to know and remember that the brand shows environmentally friendly products. This means consumers can recognize and consider the impact of being environmentally friendly. Studies have shown a positive correlation between green brand awareness and green purchase intent (Braimah, 2015). When consumers are aware of a brand’s efforts toward environmental sustainability, they are more likely to consider buying from it. However, other researchers say that green brand awareness cannot affect green purchase intention (Adelina & Hutabarat, 2023). With the research gap, this study intends to test and analyze how the effect of green products on green purchase intention is mediated by green brand awareness. The mediation of green brand awareness in green products and green purchase intention is important in understanding how green brand awareness can affect green purchase intention. Green brand awareness refers to the extent to which consumers recognize and understand brands committed to environmentally friendly practices. Therefore, green brand awareness increases consumer perception of quality and trust in green products from the brand. On the other hand, green brand awareness also increases consumer perception of environmental values and brand concern for the environment, increasing green purchase intentions. Therefore, green brand awareness of green products and green purchase intention shows that green brand awareness not only increases direct purchase intention but also increases perception and appreciation of green products offered by the brand.
2. **RESEARCH METHOD**

This study aims to investigate the relationship between green products, green brand awareness, and green purchase intention. Quantitative research approaches are used to statistically analyze and describe relationships between variables in exploring these relationships. The sample used in this study was 120 respondents. Maichum et al. (2016) suggested that taking samples is better for those with at least a high school education because they are considered to have more knowledge in decision-making. Data collection was carried out using a questionnaire with a five-point scale measurement, where 5 represents "strongly agree" and 1 represents "strongly disagree". The data analysis used in this study used SmartPLS software version 3. PLS-SEM provides solutions to highly complex structural constructions and models by reducing the problem of multicollinearity (Streukens & Leroi-Werelds, 2023). This study considers the choice of using PLS-SEM based on the following reasons: 1) it can predict and explain a particular phenomenon; 2) PLS-SEM is statistically robust in the analysis of various samples, especially small-sized samples; and 3) it does not require data to be normally distributed (Hair et al., 2011). The data analysis in this study uses two stages: the first stage is the measurement model, which tests validity and reliability, while the second stage is the structural model, which tests the hypothesis with a prediction model using bootstrapping techniques. Bootstrapping is a resampling technique used to evaluate the accuracy of estimates. This method has been used in various disciplines, including marketing management (Méndez-Suárez, 2021). The hypotheses in this study are as follows: H1: green products are significantly positively associated with green purchase intention. H2: green products have a positive and significant effect on green brand awareness. H3: green brand awareness is positively and significantly related to green purchase intention. H4: green brand awareness can be a positive and significant mediation in green products against green purchase intention.

3. **RESULTS AND DISCUSSIONS**

To test the hypothesis proposed in this study, the initial stage carried out is to test the where measurement model the aim is to validate the validity and reliability of the construct and measurement, respectively (Hair et al., 2019). Hair et al. (2019) recommend testing measurement models, including the threshold of outer loading values of 0.70, acceptable CA and CR values of 0.7, and the recommended AVE value of 0.5.

<table>
<thead>
<tr>
<th>Variable</th>
<th>I</th>
<th>OL</th>
<th>CR</th>
<th>CA</th>
<th>AVE</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Brand Awareness (GBA)</td>
<td>GBA1</td>
<td>0.821</td>
<td>0.902</td>
<td>0.864</td>
<td>0.650</td>
<td>0.548</td>
</tr>
<tr>
<td></td>
<td>GBA2</td>
<td>0.855</td>
<td></td>
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<tr>
<td></td>
<td>GBA3</td>
<td>0.709</td>
<td></td>
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<tr>
<td></td>
<td>GBA4</td>
<td>0.719</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>GBA5</td>
<td>0.907</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Green Product (GP)</td>
<td>GP1</td>
<td>0.915</td>
<td>0.893</td>
<td>0.841</td>
<td>0.677</td>
<td></td>
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<tr>
<td></td>
<td>GP2</td>
<td>0.845</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GP3</td>
<td>0.774</td>
<td></td>
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<tr>
<td></td>
<td>GP4</td>
<td>0.869</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Green Purchase Intention (GPI)</td>
<td>GPI1</td>
<td>0.773</td>
<td>0.869</td>
<td>0.774</td>
<td>0.689</td>
<td>0.478</td>
</tr>
<tr>
<td></td>
<td>GPI2</td>
<td>0.751</td>
<td></td>
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<td></td>
<td>GPI3</td>
<td>0.843</td>
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</tbody>
</table>

**Note(s):** I (indicator); OL (outer loadings); CR (composite reliability); CA (cronbach's alpha); AVE (average variance extracted); R² (R-square)

Based on Table 1, all indicators tested have values ranging from 0.709-0.915. This means that validity is met because it exceeds or approaches the recommended threshold. Furthermore, CR and CA values range between 0.869-0.902 and 0.774-0.864, respectively. Therefore, CR and CA values have exceeded the recommended thresholds. Then, the respective AVE is above the recommended value. The coefficient of determination (R²) value for GBA is 0.548. GP collectively explains 54.8% to GBA. Meanwhile, GPI has an R² of 0.478, which means that GP and GBA predict GPI variants to be 47.8%. Hair et al. (2019) divided three categories in the R² test, namely substantial (0.75), moderate (0.50) and weak (0.25). This study shows that green brand awareness is included in the moderate category, while green purchase intention is a weak category.
Nevertheless, Rasoolimanesh et al. (2017) say that in social research especially in behavioral science, where every R2 of 0.20 or greater can be considered good. Therefore, in this study, all R2 values are good and have good predictive abilities.

After completing the measurement model assessment, the structural model examination is carried out at the next stage. The hypotheses are carefully examined one by one. Bootstrapping, a re-sampling approach, is performed to test the relevance of the hypothesized relationship. Therefore, to test the significance of direct and indirect influences, this study used the bootstrapping method using a sub-sample of 5,000. In the bootstrapping test, the values that can be seen are beta values, t-values, and p-values. If the t-values are more than 1.96 and the p-values are lower than 0.05, then it can be significant (Hair et al., 2019).

The first hypothesis states that green products have a significant positive relationship with green purchase intention. As shown in Table 2, it is observed that green products have a significant positive relationship with green purchase intention (β = 0.426; t-values = 5.736; p-values = 0.000). Therefore, hypothesis one is confirmed or supported. The second hypothesis states that green products have a significant positive relationship with green brand awareness. As shown in Table 2, it is observed that green products have a significant positive relationship with green brand awareness (β = 0.740; t-values = 20.856; p-values = 0.000). Therefore, the second hypothesis is also confirmed or supported. The third hypothesis states that green brand awareness has a significant positive relationship with green purchase intention. As shown in Table 2, it is observed that green brand awareness has a significant positive relationship with green purchase intention (β = 0.426; t-values = 5.736; p-values = 0.000). Therefore, the fourth hypothesis states that green brand awareness mediates a positive and significant relationship between green products and green purchase intention. As shown in Table 2, it is further observed that green brand awareness can mediate the relationship between green products and green purchase intention positively and significantly.

In recent years, interest in green products and their impact on consumer behavior has increased. Many consumers are becoming more aware of their purchasing decisions’ environmental and social implications, increasing interest in green products. This has led to a surge in research on the effect of green products on green purchase intention (Ansu-Mensah, 2021; Wang et al., 2019; Wijekoon & Sabri, 2021; Zhuang et al., 2021). Several studies have found that various factors, such as environmental awareness, eco-labeling, and perceived consumer effectiveness, can significantly influence consumers’ eco-friendly purchase intentions. Marketers and policymakers must understand these factors to effectively promote and encourage the purchase of green products. By overcoming barriers to green purchase intention and harnessing drivers of consumer behavior, businesses and policymakers can work together to promote sustainable consumption patterns.

The company increasingly focuses on developing and promoting green products to meet consumers’ growing demand for eco-friendly options. This shift towards sustainability has sparked researchers’ interest in evaluating the impact of green products on consumer behavior and brand perception. One of the critical areas of focus is understanding the relationship between green products and green brand awareness. The findings from this study have the potential to provide valuable insights for businesses looking to improve their sustainability efforts and strengthen their brand image. By understanding the factors driving green brand awareness, companies can effectively adjust their marketing strategies to communicate their environmental initiatives better and resonate with environmentally conscious consumers. Consumers seeking out and buying green products tend to be more aware of environmental issues and value brands that demonstrate a commitment to sustainability. This increased awareness often results in brand loyalty and positive

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word-of-mouth marketing, as environmentally conscious consumers support and advocate for brands that align with their values.

As the demand for green products grows, businesses need to recognize the integral role of green brand awareness in shaping consumer preferences and driving competitive advantage (Dangelico & Vocalelli, 2017; Qiu et al., 2020; Zameer et al., 2020). By integrating these findings into their strategic planning, companies can strengthen their brand positioning and contribute to advancing sustainability across industries. The correlation between green products and green brand awareness has significant implications for businesses looking to align themselves with consumers' growing interest in sustainability. This shows the importance of offering eco-friendly products and communicating the brand's commitment to sustainability effectively. This communication can take many forms, such as transparent labeling, educational campaigns, and participation in environmental initiatives. Furthermore, companies can use the findings from this research to inform their product development and innovation strategies. Understanding the positive relationship between green product consumption and increased brand awareness can guide businesses in prioritizing integrating sustainable practices into their operations and product offerings.

Sustainability has become a significant factor in consumer purchasing decisions (Moser, 2016; Zhang & Dong, 2020), driving the shift toward green brand awareness. The emphasis on green products and transparent corporate social responsibility initiatives have resonated with environmentally conscious consumers. In addition to marketing strategies, businesses can increase green brand awareness through partnerships with environmental organizations, participation in eco-friendly events, and transparent communication about their sustainability goals and achievements. By actively promoting green brand awareness, businesses can influence consumer behavior and contribute to a more sustainable future. As consumers' environmental awareness increases, the impact of eco-conscious brand awareness on their purchasing decisions is becoming increasingly significant. Companies that prioritize sustainability meet consumer demands and contribute to a more sustainable future. In addition to marketing efforts, businesses can increase their green brand awareness through innovative partnerships with environmental organizations and active participation in eco-friendly events.

Green brand awareness is important in mediating the relationship between green products and green purchase intent. When consumers are aware of a brand's dedication to environmental sustainability and know its products' eco-friendly attributes, it enhances their perception of the brand as an environmentally responsible brand. This increased awareness fosters a positive attitude towards the brand, increasing consumers' likelihood of purchasing its green products. When consumers are more aware of green brands and their products, they are more likely to develop a strong intent to purchase those products. This relationship underscores the importance of green brand awareness as a mediator in influencing consumers' green purchase intent. Various strategies can increase green brand awareness, such as engaging in environmentally conscious marketing campaigns, promoting eco-friendly initiatives, and actively communicating the brand's commitment to sustainability. These efforts can effectively shape consumers' perceptions and attitudes towards green brands and products, ultimately influencing the purchase intentions of those who support environmentally friendly choices. Companies can collaborate with environmental organizations or participate in eco-friendly events and sponsorships to further strengthen green brand awareness and its mediating effect on green purchase intention. By aligning a brand with a credible eco-friendly entity, consumers are more likely to perceive the brand as authentic and committed to sustainability. In addition, providing transparent information about a brand's eco-friendly practices and certifications can strengthen consumer trust and confidence in the brand's eco-friendly initiatives.

In addition, leveraging social media platforms and digital channels to share compelling stories and user-generated content about a brand's environmental initiatives can significantly strengthen green brand awareness (Junarsin et al., 2022; Zhuang et al., 2021). Encouraging user participation and showcasing real-life examples of a brand's positive impact on the environment can better resonate with consumers and foster a sense of connection and trust. Nurturing eco-brand awareness is crucial in influencing consumer attitudes and intentions towards eco-friendly products. By implementing a multi-faceted approach that blends marketing efforts, partnerships,
transparency, and compelling storytelling, companies can effectively mediate the link between green brand awareness and green purchase intent, ultimately driving demand for sustainable and environmentally friendly products. Many consumers show increased environmental awareness and a preference for green products, with a willingness to buy green products and pay more for eco-friendly products (Wang et al., 2019).

4. CONCLUSION

This study produced four main findings: (1) green products are significantly positively associated with green purchase intention; (2) green products have a positive and significant effect on green brand awareness; (3) green brand awareness is positively and significantly related to green purchase intention; and (4) green brand awareness can be a positive and significant mediation in green products against green purchase intention. Based on these findings, the conclusion is that green brand awareness can give birth to green purchase intention with green products.

As a socially responsible conscious consumer, the green consumer considers the public consequences of his private consumption and seeks to use his purchasing power to create social change. More specifically, in the context of green product consumption, green product buying behavior means buying eco-friendly products or sustainable products that are recyclable and beneficial to the environment, avoiding products that harm the environment and society. This research contributes theoretically and practically to help provide a deeper understanding of the complex dynamics underlying consumer behavior in green purchase intentions. The increasing interest in green products and their impact on consumer behavior has led to a surge in research on this topic. Understanding the factors influencing consumers' intent to purchase eco-friendly products is critical for marketers and policymakers. By overcoming barriers to green product purchase intent and leveraging the drivers of consumer behavior, businesses can work to promote sustainable consumption patterns. This research is expected to make a theoretical contribution to the literature in this context.

Like other studies, this study cannot be separated from limitations. The study only tested how green products and green brand awareness can increase green purchase intention. Therefore, as a recommendation, further research can add variables of brand loyalty, digital marketing, and corporate social responsibility. Similarly, the number of respondents who participated, although a sample of 120 may be considered acceptable, is still relatively small, therefore, future studies may use a larger sample.

REFERENCES


