

HOW DO PRODUCT POSITIONING AND CONSUMER KNOWLEDGE OF GREEN BRANDS LEAD TO PURCHASE DECISIONS?

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Abstract: Green branding has become a relevant strategy for winning the business competition. However, limited research has been conducted specifically investigating the role of green branding positioning on consumer green brand attitude and brand purchase. This study looks into the impact of green brand positioning on green purchasing decisions, considering consumer knowledge and consumer green brand attitude. Specifically, we examined how green brand positioning and knowledge form the green brand attitude and how green brand attitude determines green purchase decisions. Our research setting is green lamp purchase decisions. Respondents were green lamp purchasers and users, with a total sample size were 220 respondents. We developed several hypotheses and tested them using Structural Equation Modelling (SEM) with the AMOS 22. Our research findings showed that green brand positioning and knowledge positively and significantly impact consumers' green brand attitudes. Green brand attitude positively impacts green purchase decisions, and green brand positioning and knowledge positively and significantly affect a green purchase decision. In conclusion, our investigation showed that green brand positioning and green brand knowledge are essential for the formation of green brand attitudes and green brand purchase decisions. We also found the partial mediation of green brand attitude on the effect of green brand positioning on green brand purchase decisions. While for the impact of green brand knowledge on the green brand purchase decision, we did not find the mediating effects of green brand attitude.

Keywords: green brand positioning, green brand knowledge, green brand attitude, green brand purchase decision

Abstrak: Green branding telah menjadi strategi yang relevan untuk memenangkan persaingan bisnis. Penelitian ini melihat dampak dari green brands pada green purchasing decisions. Secara khusus, kami memeriksa bagaimana green brand positioning dan green brand knowledge membentuk green brand attitude dan bagaimana green brand attitude menentukan green purchase decisions. Setting penelitian kami adalah keputusan pembelian lampu hijau. Responden adalah pembeli dan pengguna lampu hijau dengan ukuran sampel total adalah 220 responden. Kami mengembangkan beberapa hipotesis dan mengujinya menggunakan Structural Equation Modelling (SEM) dengan AMOS 22. Temuan penelitian kami menunjukkan green brand positioning dan green brand knowledge memiliki dampak positif dan signifikan terhadap green brand attitudes. Green brand attitude green purchase decisions, dan green brand positioning dan green brand knowledge memiliki dampak positif dan signifikan pada green purchase decision. Simpulan riset kami menunjukkan bahwa green brand positioning dan green brand knowledge sangat penting bagi pembentukan green brand attitude dan green brand purchase decision. Kami juga menemukan mediasi parsial green brand attitude pada pengaruh green brand positioning pada green brand purchase decision. dan pada dampak green brand knowledge pada green purchase decision. Sementara, pada pengaruh green brand knowledge pada green brand purchase decision kami tidak menemukan efek mediasi green brand attitude.

Kata kunci: green brand positioning, green brand knowledge, green brand attitude, green brand purchase decision

Article history:

Received
26 October 2022

Revised
12 December 2022

Accepted
15 February 2023

Available online
31 May 2023

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INTRODUCTION

Energy provision is critical because increasing activities necessitate the availability of commensurate energy. The Ministry of Energy and Mineral Resources (ESDM) of Indonesia's official website revealed that providing an equitable electricity supply to the entire community at an affordable price is essential. However, implementing energy-saving policies is also critical. Consumers are concerned about the earth's limited resources and start looking for environmentally friendly products. The Ministry of Energy and Mineral Resources launched an energy-saving campaign with a 10% reduction. The campaign involves the government sector, companies, communities, and other individuals, intending to save 10% of energy. Currently, fossil energy is Indonesia's primary electricity source, so the campaign to anticipate the scarcity of energy reserves and save energy consumption is increasing rapidly.

The Indonesian economy in the second quarter of 2022, compared to the second quarter of 2021, grew by 5.44% (y-on-y) (Badan Pusat Statistik, 2022). Indonesia's electricity consumption reached 1,109 kilowatt-hours (kWh) per capita in the third quarter of 2021. Referring to the Ministry of Energy and Mineral Resources (ESDM), this figure equals 92.2% of the target set in 2021 of 1,203 kWh per capita. Power plants may be built, and electricity usage could be decreased through energy efficiency. In 2016, the Ministry of Energy and Mineral Resources launched a 10% energy-saving campaign. The initiative urges government agencies, corporations, civil society organizations, and individuals to save 10% of their energy. Over the next three years, these savings initiatives will help reduce the cost of building new steam power plants (PLTU). They urged everyone in society to use electricity wisely throughout the campaign. It will aid efforts to attain energy sovereignty if performed widely and consistently.

These environmental issues cause a shift in the orientation experienced by consumers. People are increasingly aware that their behavior in buying goods and services has a direct influence on various environmental problems that occur. The form of concern that the community can do is related to the use of goods and services closely related to daily life, namely by applying the principle of green consumerism. According to Smith (1998), green consumerism continues the global consumerism movement that began with an

increasingly strong awareness of the right to obtain decent, safe, and environmentally friendly products.

Utilizing energy-efficient lighting is one of the best methods to conserve electricity. Light Emitting Diode (LED) lamps are a great replacement since the materials used in LED lamps are safer for human health and require less energy than CFL (Compact Fluorescent Lamps). CFL is also often referred to as saving-energy lamps. P.T. Philips, the industry leader in Indonesia's lighting sector, is dedicated to developing and manufacturing cutting-edge, environmentally friendly, and energy-efficient products by producing LED lamps. Philips is renowned for setting trends and innovating in terms of lighting technology. Bright illumination is a benefit of their LED lights. LED lamps can save up to 85% of energy compared to traditional bulbs. Additionally, LED lamps have a bright, natural white light that is easy on the eyes, convenient to use, and environmentally beneficial.

The increasing environmental issues and public concerns are also increasing with the greenwashing of environmentally friendly products, causing a decline in consumer confidence. The Greenwash company purposefully misleads buyers by making false claims regarding their eco-friendly activities (Ayu et al. 2022). Companies must deal directly and communicate with consumers through green brand positioning to eliminate the adverse effects of greenwashing (Huang et al. 2014). In addition, consumers must also go through green brand knowledge to consider green purchase decisions. Consumers need reliable information regarding environmental issues to increase their knowledge about environmentally friendly brands and promote environmentally friendly products (Ganapathy et al. 2014). The information obtained will shape consumer attitudes toward environmentally friendly brands.

Brand positioning is a part of the brand image and value proposition that is purposefully communicated to the potential market (Aaker & Joachimsthaler, 2002). Positioning aims to benefit a brand over rival brands in consumers' thoughts based on the characteristics of physical or intangible products (Gwin & Gwin, 2003). Positioning is an industry's ability to develop an image and the value of a product in a specific segment and make it the company's strength compared to its competitors (Situmorang et al. 2021). Green brand knowledge informs consumers about unique products, brand attributes, and environmental benefits. According

to Lee (2008), a consumer's attitude toward a green brand is a concept that results from their evaluation of the brand and their rational assessment of it. According to Teng & Wang (2015), brand attitude reflects consumer preferences and overall brand assessment.

This study wants to discover how green brand positioning and knowledge affect green brand attitudes and green brand attitudes affect green purchase decisions. We also looked at how green brand attitude affects the relationship between green brand positioning and green purchase decisions and between green brand knowledge and green purchase decisions. In this study, we develop a research framework considering purchase decision as the endogenous variable different from most previous studies using purchase intention. We argued that the purchase decision is more concrete behavior, giving more insight than purchase intention. Several previous studies also have been conducted in the context of food and pharmaceutical products. We tested the proposed model in lighting products directly related to energy consumption. This research is essential since Indonesia is facing energy crisis issues.

METHODS

This study employs a quantitative methodology. We conducted an explanatory design to examine the causality effects. For the data collection, we used an online survey. The questionnaires were distributed using a Google form link via social media (Whatsapp group, Facebook) and personal messages in the Special Region of Yogyakarta, Indonesia, in 2022. Our sampling design is purposive sampling with the criteria of those with the minimum age were 17 years old and already purchased and used Philips LED. The minimum age was chosen with the consideration that they are capable of giving the response. The targeted sample size was 200 since we developed a complex model for AMOS analysis. The final usable sample that met the criteria for inclusion in this study is 220 respondents. The data were analyzed using AMOS SEM. According to the AMOS SEM, we conducted several procedures to test our proposed hypotheses. Initially, we performed model testing to test whether the proposed model met the model fitness criteria. AMOS SEM identified the following eight criteria for the model fitness test: Chi-square, significant probability, RMSEA, GFI, AGFI, CMIN/DF, TLI, and CFI. The next step is testing the hypothesis based on the regression coefficient significance.

The basic theory of this study is the Theory of Reasoned Action (TRA) by Ajzen dan Fishbein (1980), which explains that stages in human behavior start from their attitude toward a particular behavior. We did not consider intention since we targeted our respondent's actual behavior directly and used a cross-section study instead of longitudinal time frame data collection. Several previous research in green purchase decisions mainly uses different theories ranging from the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Value Attitude Behavior (VAB), and Value Belief Norm (VBN) (Zhang et al. 2020). We did not use TPB since we did not include Subjective Norms and Perceived Behavior Control in our research framework. A previous study by Polycarpo and Aguiar (2020) and Zhao et al. (2018) also used TRA to explain their research framework for green purchase behavior.

The concept of green purchase decision refers to the idea of purchase decision in the green product context. Purchasing decision analyzes how persons, communities, and organizations decide, purchase, and utilize products and services when individuals or groups satisfy their requirements and wants (Kotler et al. 2018). The green purchasing decision is the deliberate choice and acquisition of the best goods and services to reduce adverse environmental effects throughout their life cycle, beginning with production, transportation, usage, and disposal or recycling. Green purchasing decisions are the affirmative selection and acquisition of the most effective products and services to minimize adverse environmental impacts over their life cycle starting from manufacturing, transportation, use, and recycling or disposal" (Vazifehdoust et al. 2013). It relates to responsible, principled, sustainable, and environmentally friendly purchasing (Do Paco et al. 2019). The purchase of energy-efficient products, avoiding overpackaged products, showing a tendency to rot and recyclable items, and pollution reduction are all considered green buying behaviors (Do Paco et al. 2019).

A literature review conducted by Zhang et al. (2020) investigates 97 papers published between 2015-2020 that investigated why people make purchase decisions and the predictors variables. They summarized that determinants of green purchase decisions are: 1) individual factors (including psychological, habits, experience, lifestyle, and socio-demographics, 2) product attributes and marketing, and 3) social factors. Thus, our framework relates to the product attribute/

marketing and individual factors. Product attribute/marketing factors exist in the product positioning construct in our research model. Product positioning is reflected through product differentiation, such as product attributes, price, promotion, and place ((Kotler & Keller, 2016). The framework also relates to individual factors (knowledge). Consumer knowledge about the existence of green products can be viewed as consumer awareness, including psychological factors. Brand awareness is also a component of product knowledge besides brand image ((Kotler & Keller, 2016).

Attitude is considered in most of the previous research on green purchases (Zhang, 2020) based on the data that showed the most prevalent underlying theories in green purchases are TPB and TRA. Both theories considered attitude before intention and actual behavior. Attitudes toward brands are based on consumers' choices and general judgments that symbolize their likes and dislikes (Solomon, 2014). Lee (2008) defined the attitude of the green brand as a concept derived from the review process and reasonable decision of purchasers toward the green brand. Eco-friendly behavior is consumer behavior in which every consuming activity includes becoming environmentally friendly (Kardoyo et al. 2020). Schiffman et al. (2010) state that positive feelings and attitudes fundamentally shape a customer's attitude and intention to buy a product.

Brand positioning refers to a strategy to design a brand's propositions and image so that the brand occupies a distinctive position in the mind of target consumers (Kotler, 2016). Brand positioning also relates to how companies want consumers to perceive their products (Cravens and Piercy, 2013). Brand positioning is a company strategy that will be conducted via brand differentiation. The differentiation itself can be reflected in marketing mix tools decisions. Such differentiation should be distinctive enough so consumers can easily differentiate the company's products. Therefore, brand positioning decisions will be related to the marketing mix strategy (Kotler & Keller, 2016). Brand positioning is a component of brand image and value proposition intentionally communicated to the prospective market (Aaker & Joachimsthaler, 2002). The purpose of the positioning is to generate a competitive advantage over other competing brands in the minds of consumers based on the attributes of tangible or intangible products (Gwin & Gwin, 2003).

Our study's concept of green brand positioning refers to a component of brand identity that refers to the value of an environmentally friendly product directly related to the target market. Green positioning is an essential product method that impacts and attracts buyers' conceptions of brands' green technologies, serving as a critical basis for distinguishing the green brand from competitors (Wang, 2017). Previously, some academics investigated the challenges of green brand positioning. Green brand positioning techniques, for example, are classified as utilitarian or emotional by Hartmann et al. (2005). They demonstrate through an experimental design that a combined strategy produces the most significant outcomes in producing good brand perceptions. In contrast, the most successful green brands relate to alternative technology or a green corporate philosophy. Furthermore, Huang et al. (2014) use surveys to further elaborate on the relationship between green brand positioning and green purchasing intention, particularly when the green-brand attitude is used as a mediating variable.

Green brand knowledge is a green brand node in the customers' memory with various linkages associated with environmental commitment and concerns (Suki, 2016). It is also related to consumer knowledge of environmental issues, an essential determinant of ecologically responsible behaviors (Huang et al. 2014). Consumer knowledge and attitudes will be formed due to consistent communication about green brands (Nguyen et al. 2020). Brand knowledge can be measured by how familiar consumers are with the brand (Kotler et al. 2018). Brand awareness and brand image are the two forms of brand knowledge (Keller, 1993). Consumers' "brand awareness" measures how well they remember the brand itself, whereas "brand image" measures how favorable consumers remember associating the brand with specific characteristics (Keller, 1993).

The Effect of Green Brand Positioning on Green Brand Attitude

Caring for the environment is rooted in one's self-concept and the extent to which an individual perceives becoming an integral part of the natural environment (Zelezny & Schultz, 2000). Research conducted by Hartmann et al. (2005), Huang et al. (2014), Suki (2016), and Baiquni & Ishak (2019) showed that green brand positioning positively affects the green brand attitude. Meanwhile, according to Aulina & Yulianti

(2017), green brand positioning does not affect green brand attitude. Their study was conducted on a green skincare product already famous as a brand of skincare and cosmetics worldwide. They explained that the positioning strategy conveyed through the marketing communication did not immediately affect consumers' attitudes toward the green brand since consumers initially processed the product information before forming their attitudes. Based on these discussions, we developed the following hypothesis.

H1: Green brand positioning positively affects the green brand attitude.

The Effect of Green Brand Knowledge on Green Brand Attitude

Consumer attitude formation toward certain brands is determined by consumer familiarity with the brand. Consumer knowledge of an excellent green brand can shape consumer attitudes toward the green brand so that it will encourage intentions to carry out sustainable consumption (Sun & Wang, 2020) and purchase decisions (Cheung & To, 2019). Previous research by Aulina & Yuliati (2017) shows that green brand knowledge positively affects brand attitudes. Baiquni & Ishak (2019), Huang et al. (2014), Maichum et al. (2016), Suki (2016), Ko & Jin (2017), Cheung & To (2019), and Nguyen et al. (2019)) argued that green brand knowledge positively on green brand attitude. Thus, we developed the following hypothesis.

H2: Green brand knowledge positively affects the green brand attitude.

The Effect of Green Brand Attitude on Green Purchase Decision

The better the attitude toward a behavior, the more likely a person will act that way (Amoako et al. 2020). Therefore, the more positive consumers' attitudes toward Green Brands, the higher their buying interest in buying these environmentally friendly products (Suki, 2016). Results of several previous studies stated that green brand attitude positively significantly on the green purchase decision (Aulina & Yuliati (2017); Baiquni & Ishak (2019); Chen et al. (2020); Jan et al. (2019); Suki (2016)). However, Nguyen et al. (2020) research shows that the green brand attitude does not positively affect a green purchase decision. Their study was conducted in Vietnam in the context of meat purchases. They explain the insignificant result as an attitude-behavior gap that needs to be filled out for future research. In their

context, they explained that the high price of green products might constrain consumers from purchasing. The finding is similar to Bursan et al. (2021) and Chin et al. (2019) research. The green brand attitude does not affect green brand decisions. Therefore, we developed a hypothesis regarding this idea.

H3: Green brand attitude positively affects green purchase decisions.

The Effect of Green Brand Positioning on Green Purchase Decision

Several previous studies showed that green brand positioning influence green brand purchase decision. Nguyen et al. (2019) showed that a green marketing strategy positively affects green purchases. Considering that brand positioning is reflected in the marketing mix strategy, hence, predicting that green brand positioning positively influences the purchase decision is logical. The research findings show that brand positioning positively affects a green purchase decision (Suki, 2016; Bursan et al. 2021; and Wang et al. 2022). The company's marketing strategy in green brand positioning emphasizes quality price, advertising, and product that meet consumer wants and needs so that consumers will have awareness about green products and will encourage consumer buying interest in green products, which become a good predictor of purchase decision (Chin et al. 2019). The following is our hypothesis regarding this relationship.

H4: Green brand positioning positively affects the green purchase decision.

The Effect of Green Brand Knowledge on Green Purchase Decision

Consumers who know environmentally friendly products will increase their awareness of the importance of protecting the environment to encourage buying interest in environmentally friendly products (Sun & Wang, 2020). Cheung & To (2018) categorized consumer information as consumer knowledge. Their study proved that consumer information positively affects green purchase behavior. Therefore, green brand knowledge can affect the green purchase decision. The research results by Amoako et al. (2020) show that green brand knowledge positively affects a green purchase decision. Bursan et al. (2021), Chin et al. (2019), and Suki (2016) found that green brand knowledge significantly on the green purchase decision. However, Rusyani et al. (2021) research states that green brand

knowledge does not positively affect a green purchase decision. Based on this idea, we proposed the following hypothesis.

H5: Green brand knowledge positively and significantly affects green purchase decisions.

The Mediating Effect of Green Brand Attitude on the Effect of Green Brand Positioning and Green Brand Knowledge on Green Brand Purchase Decisions

We did not find many previous studies testing the mediating effect of green brand attitudes on the influence of green brand positioning and green brand knowledge on green brand buying decisions. Among the earlier research that investigated these notions were Pebrianti & Aulia (2021) and Wang et al. (2022). However, this research used purchase intention. The research results by Pebrianti & Aulia (2021) dan Wang et al. (2022) show that green brand positioning positively affects purchase decisions through green brand attitude, but not for green brand knowledge. Based on the logic we built related to the previous hypothesis of the influence of green brand positioning on green brand attitude and the influence of green brand attitude on green brand purchase, as well as supporting the research findings of Pebrianti and Aulia (2021), we developed a hypothesis of the mediating effect of green brand attitude on the influence of green brand positioning on green brand purchase decisions. Thus, we proposed the following hypothesis.

The results of research conducted by Wulandari et al. (2015) show that green brand knowledge positively affects purchase decisions through a green brand attitude. These findings are similar to Aman et al. (2012) research that green brand attitude mediates green brand knowledge positively on green purchase decisions. Then, we developed the following hypothesis:

H6: Green brand attitude mediates the influence of green brand positioning on green brand purchase decisions.

H7: Green brand attitude mediates the influence of green brand knowledge on green brand purchase decisions.

We developed a research model based on our proposed hypotheses, as shown in Figure 1.

Measurement

We developed a research model consisting of exogenous, mediating, and endogenous variables. An exogenous variable is a variable that influences other variables. The mediating variable happens due to other variables as the antecedents, and its presence affects other variables as the consequences. An endogenous variable is a variable which influenced by other variables. The exogenous variables in this study are green brand positioning and green brand knowledge. Green brand positioning was adopted by Huang et al. (2014) with three statement indicators, functional positioning, green positioning, and emotional positioning; each statement has two questions. Green brand knowledge was developed by Huang et al. (2014) with two indicators, green brand image and green brand awareness. Those indicators have three questions. The intervening variable in this study is the green brand attitude. This variable is measured in six questions and two indicators referring to Huang et al. (2014), cognitive element and emotional aspect. The endogenous variable in this study is the green brand purchase decision. This variable is measured in four questions, and four indicators were adapted from Hanaysha (2018), stability in a product, habits in buying products, providing recommendations to others, and making repurchases. The variable measurement uses five points Likert scale, from strongly disagree to agree strongly.

RESULTS

We received 220 responses; all are usable because they met the criteria and answered all the items. Thus, we can use all of the responses for further analysis. Data from 220 respondents showed that the dominant age was 20-24 (65.9%) and followed by those in the range of 25-29 (16.8%) and 30-34 (17.3%). The data indicates that the dominant gender is 125 females (56.8%). Respondents' domiciles are primarily outside the Special Region of Yogyakarta, Indonesia (70.0%). The data also shows that most respondents' profession is the student (42.7%), followed by private and state employees (31.8%), entrepreneurs (18.2%), and the rest declared as others categories (7.3%). Most respondents' monthly expenses were at Rp. 2.500.000 – Rp. 5.000.000 (67.3%), followed by those in the range of Rp. 5000.-Rp.10.000.000 (24.5%), and the rest are above Rp. 10.000.000 (8.1%).

Validity and Reliability Test

We conducted a validity test to ensure the research instruments measured what the researchers wanted to measure. The validity test uses Confirmatory Factor Analysis (CFA) by identifying each item's loading factor. Hair & Babin (2018) stated that data is valid if the loading factor value exceeds 0.5. Based on the results of shown in Table 1, we found that all items have loading factors greater than 0.5. Hence, all of the items were valid.

A reliability test was also conducted to test whether the instruments give consistent results among several measurements. The reliability test shows the reliability of a measuring instrument. Reliability testing in this study uses Construct Reliability (CR), which has criteria that the variable is reliable if the CR value is greater than 0.7 (Hair & Babin, 2018). Based on the results of CR in Table 1, all variables have CR values greater than 0.7. Thus, all of our research variables were reliable.

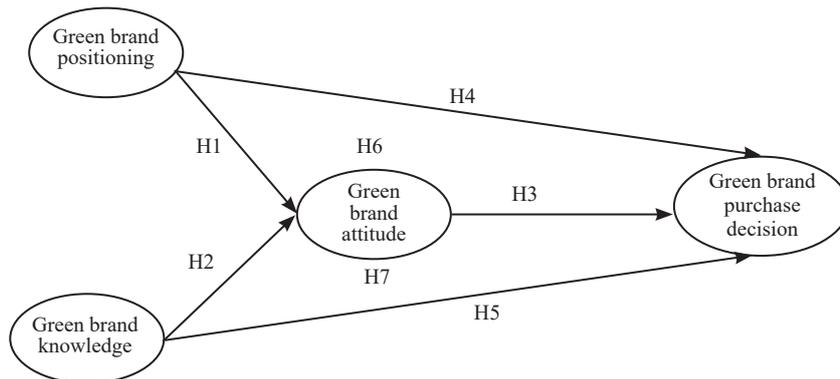


Figure 1. Research model

Table 1. Validity and reliability test

Variable	Indicators	Factor Loading	CR.
Green Brand Positioning	This lamp is safe	0.849	0.842
	This lamp uses high technology	0.811	
	This lamp has low pollution	0.64	
	This lamp is superior	0.866	
	Using this lamp. I can express my concern for the environment	0.851	
	The presence of This lamp reduces my fear of environmental damage	0.742	
Green Brand Knowledge	This lamp is the best lamp manufacturer	0.695	0.775
	This lamp is an environmentally friendly product	0.69	
	This lamp is a green product through tv and internet commercials	0.564	
	This lamp has a good brand reputation	0.587	
	This lamp is committed to protecting the environment	0.694	
	This lamp is what comes to my mind when it comes to energy-saving lamps	0.654	
Green Brand Attitude	This lamp is trustworthy	0.67	0.796
	This lamp is affordable	0.777	
	This lamp has high quality	0.688	
	love this lamp	0.644	
	My friend will feel happy when I use this lamp	0.727	
	Feel satisfied when using this lamp	0.745	
Green Brand Purchase Decision	Confident in my decision to buy this lamp	0.607	0.783
	Always choose this brand when I need lights	0.723	
	Prefer to buy this brand compared to other brands of LED lights	0.625	
	This brand is my choice when I need a lamp	0.732	

Before proceeding to the next test, the first step is to consider the value of the goodness of fit to see the extent to which the hypothesized model matches the data sample or “Fit.” Table 2 shows the Goodness of Fit test results of our proposed model. Based on Table 2, four of seven indicators, i.e., RMSEA (0.041), CMIN/DF (1.372), TLI (0.96), and CFI (0.965), met the cut-off, and it means that our model was fit. Thus, the model can be used for further data analysis for hypothesis testing.

The model resulting from data analysis is shown in Figure 2 and indicates the results of the Goodness of Fit tests. In this study, hypothesis testing aims to confirm the relationship of variables in the study’s structural

model. The results of hypothesis testing showed in Table 3. To determine whether the hypothesis is supported, the Critical Ratio (CR) value should be greater than 1.96, and the probability value (p) should be less than 0.05. The following section discusses the results of hypothesis testing.

The results of hypothesis 1 testing showed that the estimated value of standardized regression weights between green brand positioning and green brand attitude was 0.226, with a CR of 4.162 (greater than 1.96) and P of 0.000 (smaller than 0.05). Thus, the first hypothesis is supported. It implies that green brand positioning positively impacts green brand attitude.

Table 2. Goodness of Fit

The goodness of the fit index	Cut-off value	Research Model	Model
Significant probability	≥ 0.05	0.000	Not Fit
RMSEA	≤ 0.08	0.041	Fit
GFI	≥ 0.90	0.895	Marginal Fit
AGFI	≥ 0.90	0.870	Marginal Fit
CMIN/DF	≤ 2.0	1.372	Fit
TLI	≥ 0.90	0.960	Fit
CFI	≥ 0.90	0.965	Fit

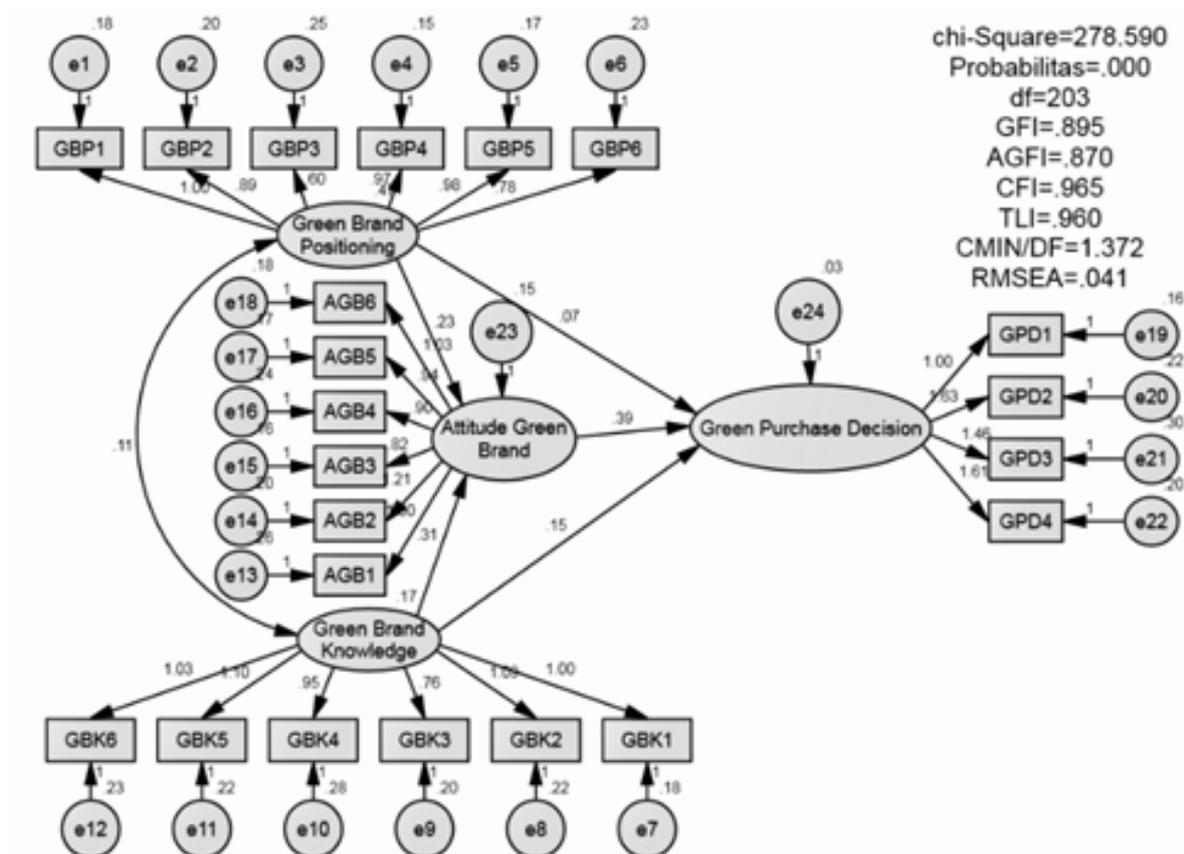


Figure 2. Structural equation

Furthermore, hypothesis 2 testing demonstrated that the calculated value of standardized regression weights between green brand knowledge and green brand attitude is 0.307, with a correlation coefficient of 3.198 (greater than 1.96) and a significance level of 0.001(smaller than 0.05). Hence, our second hypothesis is supported. It showed that green brand knowledge positively influences green brand attitude.

Hypothesis 3 testing result indicates the calculated value of the standardized regression weights between the green brand attitude and green purchase decision is 0.39, with a correlation coefficient of 5.898 (greater than 1.96) and a significance level of 0.000 (smaller than 0.05). Therefore, the third hypothesis is supported. It implied that the Green Brand Attitude influences the Green Purchase Decision.

Hypothesis 4 testing finding showed the estimated value of the standardized regression weights between green brand positioning and green purchase decision was 0.074, with a CR of 2.259 (greater than 1.96) and a P of 0.024 (smaller than 0.05). Based on these results, we concluded that the fourth hypothesis is supported. It means that green brand positioning positively affects green purchase decisions.

Moreover, our finding of hypothesis 5 testing demonstrated the estimated value of standardized regression weights between green brand knowledge and green purchase decision was 0.151 with a CR of 2.547 (greater than 1.96) and a P of 0.011 (smaller than

0.05). Based on these findings, the fifth hypothesis is supported. It indicates that green brand knowledge influences green purchase choices.

We also tested the mediating relationship in our sixth and seventh hypotheses by comparing the value of the standardized direct impact with the standardized indirect effect. The mediation variable in the study has an indirect impact if the standardized direct effect has a value lower than the standardized indirect effect. Results of direct and indirect impact showed in Table 4. Based on Table 4, the mediating effect of green brand attitude on the influence of green brand positioning on green purchase decisions is tested by comparing whether the direct effect values are smaller than the value of the indirect effect. The result of testing the relationship between the two variables shows a value of 0.168, smaller than 0.200. It indicates that the green brand attitude mediates green brand positioning on green purchase decisions. Hence, our sixth hypothesis is supported, which affirms green brand positioning affects green purchase decisions through the green brand attitude. Furthermore, the mediating effect of green brand attitude on the influence of green brand knowledge on green purchase decisions is tested by comparing whether the direct effect value is smaller than the indirect effect value, testing the relationship between the two variables shows a value of 0.204 greater than 0.161. It indicates that the green brand attitude does not mediate green brand knowledge on green purchase decisions. Thus, our seventh hypothesis is not supported.

Table 3. Hypothesis Testing

	Estimate	SE.	CR.	P	Hypothesis
Green Brand Positioning → Green Brand Attitude	0.226	0.054	4.162	0.000	H1 Supported
Green Brand Knowledge → Green Brand Attitude	0.307	0.096	3.198	0.001	H2 Supported
Green Brand Attitude → Green Brand Purchase Decision	0.390	0.066	5.898	0.000	H3 Supported
Green Brand Positioning → Green Brand Purchase Decision	0.074	0.033	2.259	0.024	H4 Supported
Green Brand Knowledge → Green Brand Purchase Decision	0.151	0.059	2.547	0.011	H5 Supported

Table 4. Standardized direct and indirect effect

	Standardized Direct Effects (SDE)	Standardized Indirect Effects (SIE)	Results	Conclusions
Green Brand Positioning (GBP) → Green Brand Attitude (GBA) → Green Brand Purchase Decision (GBPD)	.168	.200	SDE < SIE	H6 supported
Green Brand Knowledge (GBK) → Green Brand Attitude (GBA) → Green Brand Purchase Decision (GBPD)	.204	.161	SDE > SIE	H7 not supported

Based on the first hypothesis testing result, green brand positioning positively affects green brand attitude. It demonstrates that the more actively the marketer communicates brand positioning to consumers, the better the attitude toward the brand. This finding is consistent with the results of several researchers who claim that the more actively a marketer communicates brand positioning to consumers, the more likely consumers are to be interested in and like the brand (Baiquni & Ishak, 2019; Hartmann et al. 2005; Huang et al. 2014; Suki, 2016; Pebrianti & Aulia, 2021). This result implied that creating a solid green brand positioning is essential to shape their good attitude toward the green brand.

Our result of the second hypothesis testing showed that green brand knowledge positively affects green brand attitude. It demonstrates that the more brand knowledge consumers have, the more positive their attitude toward the brand. This finding is consistent with several researchers who claim that the more brand knowledge consumers have, the more favorable their attitude toward the brand (Aulina & Yuliati, 2017; Baiquni & Ishak, 2019; Suki, 2016). Our finding implied that communicating a green brand strategy is crucial for the marketer to influence an excellent green brand attitude.

Our third hypothesis testing revealed that the green brand attitude positively and significantly affects the decision to make a green purchase. It demonstrates that the better the consumer attitude toward the green brand, the more possibility of purchasing. This result is consistent with the assertions of several previous findings that product sales would increase when consumer interest in a brand increases (Bursan et al. 2021; Chin et al. 2019; Suki, 2016; Nguyen et al. 2020; Wang et al. 2022). Thus, shaping an excellent green brand attitude is vital for marketers to influence consumer purchases.

Our fourth hypothesis testing results show that green brand positioning positively affects purchase decisions. It shows that increasing brand positioning will increase the purchase of the products. This finding aligns with several researchers who revealed that the growing brand positioning would improve product purchases (Bursan et al. 2021; Chin et al. 2019; Suki, 2016; Wang et al. 2022). Again, this finding highlights the importance of creating a solid green brand positioning for green brand product marketers to stimulate their sales.

Our fifth hypothesis test finding shows that green brand knowledge impacts buying decisions. It displays the relationship between green brand knowledge and purchase decisions. This outcome aligns with earlier studies that discovered consumer knowledge influences purchases (Amoako et al. 2020; Bursan et al. 2021; Chin et al. 2019; Suki, 2016; Rusyani et al. 2021). Our results implied that it is essential for green brand marketers to build comprehensive consumer knowledge about their brand.

Our mediating hypothesis testing results showed that green brand positioning significantly affect purchasing decisions via green brand attitude. Thus, the stronger brand's positioning, the better the consumer attitude toward the brand and the resulting purchasing decisions. Thus, the green brand attitude t mediate these relationships. This finding aligns with previous researchers who claimed that green brand attitude mediated the effects of green brand positioning on green brand purchase decisions (Pebrianti & Aulia, 2021; Wang et al. 2022). Hence, creating a solid green brand positioning is crucial for the marketer to shape good consumer attitudes and stimulate product purchases.

According to the seventh hypothesis testing result, green brand knowledge does not influence purchasing decisions via green brand attitude. It means that a good consumer attitude toward green brand is not a necessary condition for the consumers to purchase a green product. This finding is consistent with previous study, which concluded that green brand knowledge does not influence green purchase decisions via green brand attitude (Aman et al. 2012; Pebrianti & Aulia, 2021). It implied that consumer may not form a good attitude first before they decide to purchase a green product.

Managerial Implications

Our results showed the importance of developing a good product positioning strategy and building good consumer knowledge via marketing communication. These strategies are intended to shape a good consumer attitude toward the green brand, influencing purchase decisions. Thus, a green product promotion emphasizing the green advantages is essential in the promotion strategy of a green product to build a strong green brand positioning. A green campaign is also needed to educate people about the importance of choosing a green product to meet their daily needs and wants.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Our results showed that green brand positioning and knowledge are two essential antecedents of shaping good consumer attitudes toward the green brand. Good green brand attitude also showed influenced purchase decisions. We also found that green brand positioning and green brand knowledge directly impact the purchase decision. Although the mediating effect of consumer attitude on green brand knowledge and purchase decision relationship is not significant, we found that the mediating effect of consumer attitude on green brand positioning and purchase decision relationship is substantial.

Recommendations

Our research has not accommodated the personal and psychological traits which may influence green brand consumer purchase decisions. Thus, we recommend future research to accommodate our model limitation to understand better why consumers buy green brand products. A different research context with higher consumer effort and involvement also can be considered, such as in the context of green car buying behavior or electronics home appliance products, to get more insight into whether green positioning and green knowledge also matter in higher effort and involvement purchase behavior context.

FUNDING STATEMENT: This research did not receive any specific grant from public, commercial, or not-for-profit funding agencies.

CONFLICTS OF INTEREST: The authors declare no conflict of interest.

REFERENCES

- Aaker DA, Joachimsthaler E. 2002. *Brand Leadership* (Simon and Schuster (Ed.).
- Ajzen I, Fishbein M. 1980. *Understanding Attitudes and Predicting Social Behaviour*. USA: Prentice-Hall, Inc.
- Aman AH, Lizawati, Amran H, Hussein Z. 2012. The influence of environmental knowledge and concern on green purchase intention the role of attitude as a mediating variable. *British Journal of Arts and Social Sciences* 7(2): 145–167.
- Amoako GK, Dzogbenuku RK, Abubakari A. 2020. Do green knowledge and attitude influence the youth's green purchasing? Theory of planned behavior. *International Journal of Productivity and Performance Management* 69(8): 1609–1626. <https://doi.org/10.1108/IJPPM-12-2019-0595>
- Aulina L, Yuliati E. 2017. *The Effects of Green Brand Positioning, Green Brand Knowledge, and Attitude towards Green Brand on Green Products Purchase Intention* 36: 548–557. <https://doi.org/10.2991/icbmr-17.2017.50>
- Ayu I, Valendia S, Purwanegara MS. 2022. Greenwash online marketing: does Indonesian gen-z still have the intention to repurchase green products? *Indonesian Journal of Business and Entrepreneurship* 8(3): 397–406. <https://doi.org/10.17358/IJBE.8.3.397>
- Baiquni AM, Ishak A. 2019. The green purchase intention of Tupperware products: the role of green brand positioning. *Jurnal Siasat Bisnis* 23(1): 1–14. <https://doi.org/10.20885/jsb.vol23.iss1.art1>
- Badan Pusat Statistik. 2022. Badan Pusat Statistik. <https://bps.go.id>
- Bursan R, Listiana I, Ardeno R, Bangsawan S, Jimad H, Mutolib A. 2021. Consumer attitude toward using eco-friendly plastic bags: A green marketing approach. *IOP Conference Series: Earth and Environmental Science* 739(1): 1–9. <https://doi.org/10.1088/1755-1315/739/1/012060>
- Chen YS, Chang TW, Li HX, Chen YR. 2020. The influence of green brand affect on green purchase intentions: The mediation effects of green brand associations and green brand attitude. *International Journal of Environmental Research and Public Health* 17(11): 1–17. <https://doi.org/10.3390/ijerph17114089>
- Cheung MF, To WM. 2019. An extended model of value-attitude behavior to explain Chinese consumers' green purchase behavior. *Journal of Retailing and Consumer Services* 50: 145–153. <https://doi.org/10.1016/j.jretconser.2019.04.006>
- Chin TA, Lawi NH, Sulaiman Z, Mas'od A, Muharam F. 2019. Effect of green brand positioning, knowledge, and attitude of customers on green purchase intention. *Journal of Arts & Social Sciences* 3(1): 23–33.
- Cravens DW, Piercy N. 2013. *Strategic Marketing*, 10th Edition. New York: McGraw-Hill.

- do Paço A, Shiel C, Alves H. 2019. A new model for testing green consumer behavior. *Journal of cleaner production* 207: 998-1006.
- Ganapathy SP, Natarajan J, Gunasekaran A, Subramanian N. 2014. Influence of eco-innovation on Indian manufacturing sector sustainable performance. *International Journal of Sustainable Development and World Ecology* 21(3): 198–209. <https://doi.org/10.1080/13504509.2014.907832>
- Gwin CF, Gwin CR. 2003. Product attributes model: a tool for evaluating brand positioning. *Journal of Marketing Theory and Practice* 11(2): 30–42. <https://doi.org/10.1080/10696679.2003.11658494>
- Hair JF, Babin BJ. 2018. *Multivariate Data Analysis* (8th ed.). Cengage Learning.
- Hanaysha JR. 2018. An examination of the factors affecting consumer's purchase decision in the Malaysian retail market. *PSU Research Review* 2(1): 7–23. <https://doi.org/10.1108/prr-08-2017-0034>
- Hartmann P, Apaolaza Ibáñez V, Forcada Sainz FJ. 2005. Green branding effects on attitude: functional versus emotional positioning strategies. *Marketing Intelligence & Planning* 23(1): 9–29. <https://doi.org/10.1108/02634500510577447>
- Huang YC, Yang M, Wang YC. 2014. Effects of green brand on green purchase intention. *Marketing Intelligence and Planning* 32(3): 250–268. <https://doi.org/10.1108/MIP-10-2012-0105>
- Jan IU, Ji S, Yeo C. 2019. Values and green product purchase behavior: The moderating effects of the role of government and media exposure. *Sustainability (Switzerland)* 11(23): 1–16. <https://doi.org/10.3390/su11236642>
- Kardoyo K, Feriady M, Farliana N, Nurkhin A. 2020. Influence of the green leadership toward environmental policies support. *Journal of Asian Finance, Economics, and Business* 7(11):459–467. <https://doi.org/10.13106/jafeb.2020.vol7.no11.459>
- Keller KL. 1993. Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing* 57(1): 1-22.
- Ko SB, Jin B. 2017. Predictors of purchase intention toward green apparel products: A cross-cultural investigation in the USA and China. *Journal of Fashion Marketing and Management: An International Journal*. <https://doi.org/10.1108/JFMM-07-2014-0057>
- Kotler P, Keller KL. 2016, *Marketing Management*, Fifteenth Edition. London: Pearson.
- Kotler P et al. 2018. *Marketing Management: an Asian perspective*. London: Pearson.
- Lee K. 2008. Opportunities for green marketing young consumers. *Marketing Intelligence & Planning* 26 (6): 573–586.
- Maichum K, Parichatnon S, Peng KC. 2016. Application of the extended theory of planned behavior model to investigate purchase intention of green products among Thai consumers. *Sustainability (Switzerland)* 8(10): 1–20. <https://doi.org/10.3390/su8101077>
- Nguyen HV et al. 2019. Organic food purchases in an emerging market: The influence of consumers' personal factors and green marketing practices of food stores. *International Journal of Environmental Research and Public Health* 16(6):1037. <https://doi.org/10.3390/ijerph16061037>
- Nguyen TTM et al. 2020. Factors affecting intention to purchase green products in Vietnam. *Journal of Asian Finance, Economics, and Business*, 7(4), 205–211. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO4.205>
- Pebrianti W, Aulia M. 2021. The effect of green brand knowledge and green brand positioning on purchase intention mediated by attitude towards green brand: study on stainless steel straw products by zero waste. *JDM (Jurnal Dinamika Manajemen)* 12(2): 201–214.
- Policarpo MC, Aguiar EC, 2020. How self-expressive benefits relate to buying a hybrid car as a green product, *Journal of Cleaner Production* <https://doi.org/10.1016/j.jclepro.2019.119859>.
- Rusyani E, Lavuri R, Gunardi A. 2021. Purchasing eco-sustainable products: Interrelationship between environmental knowledge, environmental concern, green attitude, and perceived behavior. *Sustainability (Switzerland)* 13(9): 1–12. <https://doi.org/10.3390/su13094601>
- Schiffman LG, Kanuk LL, Kumar SR, Wisenblit J. 2010. *Consumer Behavior*. Pearson Educational, Inc.
- Situmorang TP, Indriani F, Simatupang RA, Soesanto H. 2021. Brand positioning and repurchase intention: the effect of attitude toward green brand. *Journal of Asian Finance, Economics and Business* 8(4): 491–498. <https://doi.org/10.13106/jafeb.2021.vol8.no4.0491>
- Smith T. 1998. *The Myth of Green Marketing: Tending*

Our Goats at the Edge of Apocalypse.

- Solomon MR. 2014. *Consumer Behaviour: Buying, Having, and Being* (11th ed.). Pearson Education Inc., Essex, NJ.
- Sun Y, Wang S. 2020. Understanding consumers' intentions to purchase green products in the social media marketing context. *Asia Pacific Journal of Marketing and Logistics* 32(4): 860–878. <https://doi.org/10.1108/APJML-03-2019-0178>
- 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>
- Teng CC, Wang YM. 2015. Decisional factors driving organic food consumption: Generation of consumer purchase intentions. *British Food Journal* 117(3): 1066–1081. <https://doi.org/10.1108/BFJ-12-2013-0361>
- Vazifehdoust H, Taleghani M, Esmaeilpour F, Nazari K. 2013. Purchasing green to become greener: Factors influence consumers' green purchasing behavior. *Management Science Letters* 3(9): 2489-2500.
- Wang HJ. 2017. A brand-based perspective on differentiation of green brand positioning: A network analysis approach. *Management Decision* 55(7): 1460–1475. <https://doi.org/10.1108/MD-04-2016-0251>
- Wang YM, Muhammad H, Zaman F, Alvi AK. 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 Journals* 40100: 1–15. <https://doi.org/10.1177/21582440221102441>
- Wulandari ASA, Rahyuda IK, Yasa NNK. 2015. The role of attitude in mediating consumer knowledge influence towards the purchase intention of green product. *Jurnal Dinamika Manajemen* 6(2): 133–144. <https://doi.org/10.15294/jdm.v6i2.4302>
- Zelezny LC, Schultz PW. 2000. Psychology of promoting environmentalism: promoting environmentalism. *Journal of Social Issues* 56(3): 365–371. <https://doi.org/10.1111/0022-4537.00172>
- Zhang, Xiaoyun, Feng D. 2020. Why do consumers make green purchase decisions? insights from a systematic review. *International Journal of Environmental Research and Public Health* 17(18): 6607. <https://doi.org/10.3390/ijerph17186607>
- Zhao L, Lee SH, Copeland LR. 2019. Social media and Chinese consumers' environmentally sustainable apparel purchase intentions. *Asia Pacific Journal of Marketing and Logistics*