

The green effect: how brand positioning fuels sustainable purchasing

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Abstract

Purpose – The construction of homes to meet the primary needs of society results in a surge of harmful gas emissions into the ecosystem. Globally, the construction sector alone contributes a staggering 39% of gas emissions, underscoring the urgent need for green innovation to mitigate their adverse impacts. The concept of green living emerges as a strategy to address this challenge. Consequently, this research aims to delve into the influence of green brand positioning and perceived financial risk on the purchase intention of green residential properties, with attitude toward environment as a mediating variable.

Design/methodology/approach – This study adopts a quantitative associative approach, employing a purposive sampling technique to target consumers aged at least 21 years old who live in Indonesia. Data are collected through online questionnaires distributed via Google Forms, garnering responses from 269 participants. Data are processed using PLS-SEM with the SmartPLS 3.0 program for hypothesis testing.

Findings – The research findings reveal that both functional and emotional positioning have a significant impact on attitudes toward environmental concerns. However, green positioning does not exhibit such influence on these attitudes. Moreover, attitude toward environmental issues significantly affects purchase intentions, although perceived financial risk does not. This study also intimates that functional and emotional positioning significantly influence purchase intention, with attitude toward environment as a mediating variable.

Practical implications – Consumer priorities lie in the functional and emotional attributes of the green homes they purchase, while environmental consciousness needs to be heightened. However, investing in green living often entails bearing higher costs, thus creating financial constraints on consumers. This condition also calls for ongoing education and advocacy initiatives to bolster consumer awareness of green living practices, fostering consumer environmental awareness and active participation in efforts to reduce greenhouse gas emissions.

Originality/value – Research on green living remains limited in Indonesia due to insufficient understanding and low environmental awareness. It is imperative to address this issue to foster a deeper understanding of green concepts and promote environmentally conscious behavior on a wider scale.

Keywords Attitude toward environment, Emotional positioning, Functional positioning, Green positioning, Perceived financial risk, Purchase intention

Paper type Research paper

1. Introduction

Residential development poses a risk of emitting gases and harming the environment if left unchecked. Buildings-GSR reports that buildings and the construction sector emit 37% of carbon dioxide (emission gases), contributing to global warming and disrupting climate patterns (UNEP, 2023). To mitigate gas emissions and address extreme climate changes, green innovation (Du *et al.*, 2021) is crucial. This involves developing sustainable (Yoong *et al.*, 2017) and environmentally friendly buildings (Cajias and Piazzolo, 2013; Chanda *et al.*, 2023). Green building efforts aim to reduce negative environmental impacts while enhancing positive effects on both the surrounding environment and residential areas (Zhang *et al.*, 2017). Kondo *et al.* (2018) suggest that sustainability concepts, green spaces and environmental friendliness



are market strategies for developing environmentally conscious and human health-oriented cities.

Each country or region has distinct characteristics regarding climate conditions, culture, traditions, environment and economy, all of which influence green building criteria. The [Green Building Council Indonesia \(2013\)](#) lists several criteria for a building to be considered “green,” including appropriate site development, energy efficiency and conservation, water conservation, material resources and cycle, indoor health and comfort and building environment management. Residential developments embracing a harmonious coexistence with nature are referred to as the green living concept (GLC), which is gaining popularity among consumers seeking homes ([Sivadasan et al., 2020](#)). This concept focuses on comfortable living spaces where activities such as work and recreation can occur in outdoor settings, enhancing the quality of life while, most importantly, reducing environmental damage. Furthermore, [Balaban and Puppim de Oliveira \(2017\)](#) state that green buildings can reduce energy consumption and gas emissions, save costs, improve users’ health and serve as long-term investments.

The surge in green residential developments is driven by consumer demand ([Zhang et al., 2018](#)), exemplified by projects like Perumahan Graha Natura and The GreenLake in Surabaya, which promote healthy and comfortable lifestyles with ample green open spaces ([Wijayaningtyas and Nainggolan, 2020](#)). [Zhang et al. \(2018\)](#) suggest that campaigns and advertisements for green products raise consumer awareness of environmental preservation, gradually changing consumer perspectives on purchasing decisions. Factors such as health awareness, consumer knowledge, environmental concerns, and personal norms influence consumer attitudes toward purchase intentions. Attitudes are shaped by moral intensity and perceived risks, which, in turn, affect purchasing intentions ([Yen and Hoang, 2023](#)). The theory of planned behavior (TPB) explains that consumer intentions motivate actions, with stronger intentions leading to a higher likelihood of action ([Fishbein and Ajzen, 1975](#)). [Sivadasan et al. \(2020\)](#) argue that consumer purchase intentions for green residential properties motivate property developers to construct the desired green homes.

Perceived risk refers to consumers’ negative expectations regarding their behavior. Companies strive to understand consumers’ perceived risks to enhance purchase intentions ([Juliana et al., 2020](#)). Perceived risk plays a crucial role for consumers, particularly in purchasing new and innovative products such as sustainable products ([Kang and Kim, 2013](#); [Wang and Tian, 2022](#)). [Tan and Goh \(2018\)](#) identify three risk factors in purchasing green residential properties: financial, performance and psychological risks. Research findings demonstrate that financial risk significantly influences consumer purchase intentions for green residential properties. The higher the financial risk faced by consumers, the lower their purchase intentions due to concerns about financial losses resulting from product prices. High financial risk is also a challenge for green brands if it is not managed properly, such as in product prices and questionable sustainability claims.

Green brand positioning (GBP) is a corporate strategy to design products that enhance consumer awareness of the brand and green products, influencing consumer purchase intentions for green products ([Huang et al., 2014](#); [Situmorang et al., 2021](#)). [Situmorang et al. \(2021\)](#) state that consumers with knowledge of environmentally friendly products tend to make purchases, thereby significantly influencing their attitude toward environment ([Situmorang et al., 2021](#); [Sivadasan et al., 2020](#)). Attitude is a strong driver of product purchase behavior ([Ajzen, 1991](#)). A positive attitude toward environment leads to consumer awareness of protecting their living environment. As consumers have a positive attitude toward environment, they tend to show greater concern for the environmental impact of the product they consume. This strengthens consumers’ purchase intention toward environmentally friendly products and creates greater demand for sustainable products.

Previous research in Indonesia shows that energy consumption and sustainability differ between landed houses and high-rise apartments. Landed houses often consume more energy due to less efficient design and larger areas that require cooling. In contrast, high-rise

apartments can be more energy-efficient due to shared walls and centralized systems, but there are still issues with energy use in elevators and HVAC systems (Svendsen and Schultz, 2022). Both types of buildings often lack sufficient green building features (IFC, 2023). Due to this gap, developers are promoting green branding by positioning their properties as eco-friendly. Marwat *et al.* (2023) stated that there is a relationship between GBP and the purchase intention of green living, while the impact of perceived financial risk on purchase intention remains largely unexplored. To address this gap, a development from previous research targeted working-age or productive-age groups with a steady income, specifically consumers aged at least 21 years old who intend to purchase homes through Home Ownership Credit (KPR) (CIMB Niaga, 2024; Putri and Martana, 2021), prioritizing green housing products in Indonesia.

2. Literature review

2.1 Green brand positioning and attitude toward environment

The term “brand” is defined as the name, term, symbol, design or combination thereof, serving to distinguish goods and services offered by sellers from those of competitors. According to Shahid *et al.* (2017), the brand plays a pivotal role in influencing consumer purchasing decisions. When it comes to new products, consumers typically seek information about the product. If the product manages to meet consumer expectations, they are more likely to exhibit loyalty, thereby contributing to the brand’s growth (Erciş *et al.*, 2012). Hence, it is crucial to build a brand to increase consumer awareness. Keller and Lehmann (2006) state that brand positioning is a company’s action to design offerings and build a brand image with the hope of occupying a perception in the minds of consumers. Brand positioning is not about creating something new, but manipulating what already exists in consumers’ minds (Saqib, 2021). However, interpretations of brand positioning in consumers’ minds may vary due to individual differences in characteristics, goals, values, mindset, culture and social factors (Adina *et al.*, 2015).

Huang *et al.* (2014) state that GBP is part of the brand identity and value proposition about environmentally friendly company attributes that need to be actively communicated to consumers. GBP focuses on highlighting the unique environmentally friendly features of a brand compared to competitors (Gong *et al.*, 2020), including functional, emotional (Hartmann *et al.*, 2005) and green positioning (Huang *et al.*, 2014). Wang’s (2017) research validates that all three attributes significantly influence brand attitude. Functional positioning demonstrates the superiority of environmentally friendly products in production processes, product usage, and disposal compared to conventional products. According to Hartmann *et al.* (2005), there are three emotional benefits that influence consumer behavior: (1) a sense of well-being that motivates altruistic actions, (2) positive social expression by using green brands and (3) sensory and emotional satisfaction derived from direct contact with nature. Gong *et al.* (2020) elaborate on emotional positioning, emphasizing the relationship between humans and nature. Consumers who care about the environment tend to be sincere, empathetic and have other positive traits toward a brand. Green positioning is therefore a successful strategy for building a green brand identity that offers tangible environmental benefit and aligns with the value of environmentally conscious consumers (Huang *et al.*, 2014). This approach not only enhances brand reputation but also fosters a deeper emotional connection between consumers and green products.

H1. Functional positioning significantly influences attitude toward environment

H2. Emotional positioning significantly influences attitude toward environment

H3. Green positioning significantly influences attitude toward environment

2.2 Attitude toward environment and purchase intention

Classical balance theory assumes that humans seek equilibrium between values, attitudes and behaviors. In the social psychology literature, Stern (2000) developed the attitude-behavior-context model, which integrates behavior and the environment, suggesting that behavior is a function of both the organism and its environment. Environmental attitude refers to the ability to evaluate environmental conditions with a certain degree of (dis)agreement (Milfont and Duckitt, 2010), which is also referred to as environmentally friendly consumer attitudes, sometimes confused with environmental behavior. Attitude is an individual's assessment of whether a behavior is beneficial or detrimental to themselves (Ajzen, 1991). The level of environmental concern influences consumer behavior (Attaran and Celik, 2015). Furthermore, attitude toward environment impacts the environment, assessed based on a product's environmental impact, deforestation and energy usage (Esmaeilpour and Bahmiary, 2017). Zhuang et al. (2021) affirm that attitude positively impacts purchase intention. Individuals with higher environmental attitudes demonstrate increased concern for environmental issues and tend to buy products or services that pose minimal harm to the environment (Situmorang et al., 2021). However, Chin et al. (2019) suggest otherwise, indicating that attitudes toward green brands do not significantly influence consumer purchase intentions due to perceptions that such products inadequately protect the environment. Low consumer environmental concern may also result in dissonance, rendering attitude toward environment unreliable predictors of purchase intention. Notably, a sense of environmental responsibility effectively predicts attitudes toward environment and influences consumer behavior (Yue et al., 2020).

The TPB elucidates that intention is the strength of one's willingness and the effort they are willing to exert to perform a behavior (Ajzen, 1991). Stronger intentions correspond to a higher likelihood of behavior enactment. Purchase intention serves as a deferred transaction and a crucial gauge of actual purchasing behavior. Perceived low product quality or excessive pricing diminishes consumer purchase intentions (Chang and Wildt, 1994). Shah et al. (2012) state that purchase intention hinges on brand familiarity, which fosters consumer trust. Brand-loyal consumers demonstrate a willingness to expend more resources and repeatedly procure products (Erciş et al., 2012; Shah et al., 2012). To comprehend environmentally conscious consumer behavior, environmental attitudes stand out as primary and pivotal antecedent variables determining purchase intention and environmentally friendly consumer behavior (Chen and Tung, 2014; Prete et al., 2017).

H4. Attitude toward environment significantly influences purchase intention

2.3 Perceived financial risk and purchase intention

Risk is defined as the likelihood of events occurring that have unfavorable effects on humans and the environment (Vasvári, 2015). The resulting consequences are unpredictable, and among the possible outcomes, some may be unpleasant for consumers (Bauer, 1960). According to Pidgeon et al. (1992), risk perception involves an individual's beliefs, attitudes, judgments and feelings, along with broader social or cultural values and dispositions. Different cultures yield different decisions (Peña-García et al., 2020). Risk perception is highly subjective and influenced by social factors and cognitive biases, meaning that a specific hazard will have different meanings for different people and in varying contexts. The risks associated with a product or service purchase cannot be controlled by consumers, who will face uncertainty and the consequences of their purchase decisions (Lim, 2003; Hwang and Choe, 2020). The greater the perceived risk, the less likely a purchase will occur (Chang and Tseng, 2011).

Perceived financial risk refers to the likelihood of monetary loss occurring due to the value of the purchased product being higher than the value received (Wu et al., 2011). Financial risk is crucial in the purchasing process due to the heightened feelings of monetary loss when consumer expectations are not met (Shapiro et al., 2018). Kang and Kim (2013) suggest that to minimize financial risk, buyers should seek appropriate prices by gathering information about

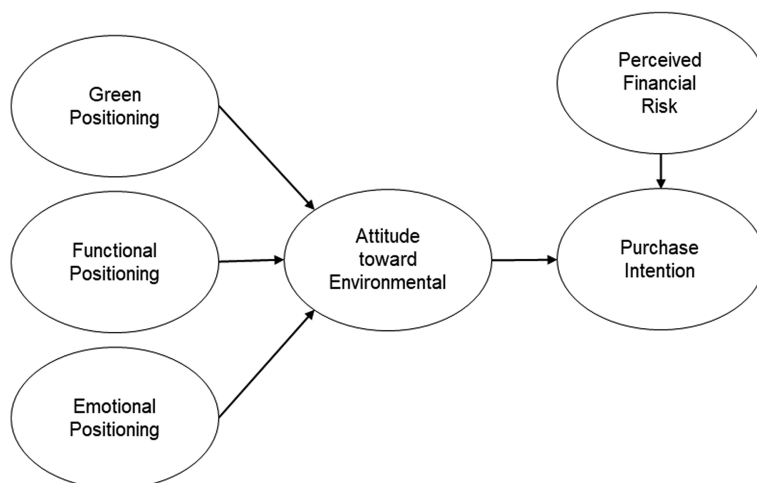
the price-to-quality ratio. [Tan and Goh \(2018\)](#) and [Njo and Sugeng \(2023\)](#) demonstrated the impact of perceived financial risk on green residential purchase intentions. Consumers are inclined to purchase green homes when the initial and maintenance costs are lower than conventional products.

H5. Perceived financial risk significantly influences purchase intention

Green brand positioning encompasses green positioning, functional positioning and emotional positioning, all of which influence consumer purchase intention. Green positioning emphasizes a brand's environmental practices, functional positioning highlights the sustainable benefits of the product and emotional positioning creates an emotional connection through environmental values ([Hartmann et al., 2005](#); [Huang et al., 2014](#)). Attitude toward environment mediates the impact and can strengthen the influence of green brand positioning on purchase intention ([Yue et al., 2020](#)). However, the perception of financial risk-free is also important because consumers may hesitate to buy if they feel the price is too high or lacks value ([Wu et al., 2011](#)). This explanation is shown in [Figure 1](#), namely the research conceptual framework.

3. Research method

This study employs associative research to examine the influence of more than two variables. The sampling method used is nonprobability sampling, with a purposive sampling technique based on specific criteria. These criteria include consumers who are at least 21 years old, which is the minimum age required to apply for a Home Ownership Loan (KPR) ([CIMB Niaga, 2024](#)). Additionally, [Le-Hoang et al. \(2020\)](#) identify the age group of 25–35 years as adults with a demand for purchasing homes. The age group of 36–45 years comprises individuals with stable incomes who prefer buying homes for living and investment purposes. Those aged 46 years and above are more inclined toward investment. The three age groups are the consumers who will be used as respondents. Data collection were carried out by distributing questionnaires online via social media using Google Forms on residents living in cities in Indonesia (such as: Jakarta, Surabaya and Makassar) who are starting or already have green residential development in Indonesia.



Source(s): Figures by the authors

Figure 1. Research conceptual framework

The questionnaire is structured into two parts: the first part covers respondent demographics, and the second part covers the latent variables (constructs that are measured through indicators or manifest variables) in the study of purchase intention. The measurement adaptation for green brand positioning includes functional positioning, green positioning, emotional positioning and attitude toward environment from [Sivadasan et al. \(2020\)](#), perceived financial risk ([Tan and Goh, 2018](#)) and purchase intention ([Sivadasan et al., 2020](#); [Tan and Goh, 2018](#)). The questionnaire is presented using statements with a Likert scale measurement from 1 to 5, ranging from “strongly disagree” to “strongly agree”. A five-point scale produces a more normal distribution of responses than a four-point scale, where the distribution can be more skewed due to fewer response options ([Carifio and Perla, 2007](#)), and a five-point scale is more in line with psychological theories of attitude measurement ([Allen and Meyer, 1990](#)).

Data analysis was performed using structural equation modeling (SEM) partial least square (SmartPLS 4.0). PLS is a component or variance-based SEM model that uses path diagrams to analyze all observed variables according to the theoretical framework. [Hair et al. \(2022\)](#) stated that SEM-PLS is very useful for testing the relationship between latent and manifest variables simultaneously and is also effective for models involving complex relationships between many variables. It is flexible for data that does not meet the assumption of normality and can be applied to smaller sample sizes. SEM-PLS is useful for theory development and model validation, including hypothesis testing about direct and indirect effects between variables. SEM-PLS analysis comprises two models: the outer model and the inner model. The outer model assesses the relationship between indicators and latent variables, while the inner model analyzes the relationships among latent variables. The outer model is used to test validity (the instrument’s ability to measure what it intends to measure) and reliability (the consistency of the measurement instrument). The evaluation of the outer model includes (1) convergent validity (CV), which explains the correlation of indicators with latent variables based on outer loading values and average variance extracted (AVE). Indicators with outer loading values < 0.4 are considered invalid and thus cannot be used. Outer loading values between 0.4 and 0.7 should be reviewed by removing indicators to improve AVE and composite reliability (CR) values. High outer loading values indicate that indicators are well explained. (2) Discriminant validity, which explains the difference between variables. Discriminant validity is tested using the Fornell–Larcker criterion and cross-loadings. In the Fornell–Larcker criterion, the square root of the AVE value of a variable must be greater than the correlation with other variables. For cross-loadings, the loading value of each indicator for its variable must be higher than its loading on other variables. If both conditions are met, the variable is considered valid. (3) Reliability test, which measures the accuracy, consistency and precision of the measurement instrument using Cronbach’s alpha and composite reliability. The requirement for Cronbach’s alpha and composite reliability values is > 0.70 .

The inner model is tested using the t-statistic with bootstrapping, and the R-Square value is used to explain the extent to which exogenous variables explain endogenous variables. Predictive relevance (Q-square) is used to assess and observe the research model. If the Q-square value is > 0 , the model is considered to have predictive relevance (and vice versa) ([Hair et al., 2022](#)).

4. Analysis and discussion

The data collection process involved distributing questionnaires via social media to respondents aged 21 and above, resulting in a total of 269 respondents. The demographic characteristics of the respondents are described in [Table 1](#).

[Table 1](#) shows that 67% of the respondents are aged 26–35, corresponding to the early working age group. The gender composition is 43% male and 57% female, with 60% residing on the island of Java and 35% on the island of Sulawesi, primarily from major cities such as

Table 1. Respondent profile

Description		Frequency	(%)
Age (years)	21–25	67	24.9
	26–35	180	66.9
	36–45	15	5.6
	>45	7	2.6
Gender	Male	115	42.8
	Female	154	57.2
Education background	≤ High school	11	4.1
	Diploma/Undergraduate	219	81.4
	Postgraduate	39	14.5
Residence	Java	162	60.2
	Sulawesi	93	34.6
	Kalimantan	5	1.9
	Papua	2	0.7
	Maluku Islands	3	1.1
	Nusa Tenggara	4	1.5
Profession	Student	29	10.8
	Civil servant	1	0.4
	Private employee	121	45.0
	Entrepreneur	76	28.3
	Professional	29	10.8
	Others	13	4.8
Monthly income	< Rp. 4,200,000	69	25.7
	Rp. 4,200,000–Rp. 21,000,000	175	65.1
	Rp. 21,000,001–Rp. 42,000,000	15	5.6
	> Rp. 42,000,000	10	3.7
Has ever lived in a green residential property	Yes	34	12.6
	No	235	87.4

Note(s): US\$1 = Rp. 15,000

Source(s): Data processed by the authors

Jakarta, Surabaya and Makassar. These cities have begun offering and developing green buildings, including green residential property. Developers are actively promoting green residential property to the public (Rizky, 2022). Additionally, 81% of the respondents have a diploma or bachelor's degree, work as private employees and 65% have a monthly income ranging from Rp. 4,200,000 to Rp. 21,000,000. However, 87% of the respondents have never lived in green residential housing due to its limited availability and perceived high cost. Table 2 displays the mean value and standard deviation of the indicator of each latent variable measured using a Likert scale of 1 (strongly disagree) to 5 (strongly agree).

The first stage is the analysis of the outer model to test the validity and reliability of the variables used. This analysis measures the indicators of each latent variable developed in the study through the process of convergent validity, discriminant validity and reliability testing.

CV measures the correlation between indicators and their latent variables, if there is an indicator with an outer loading value of <0.4, then it will not be used in the analysis. Table 3 shows the outer model test where the EP-5 and GP-1 indicators were eliminated as their outer loading values are <0.4. The next examination is the value of AVE, where after the two indicators are eliminated, AVE is > 0.5, so the validity test is accepted. For the discriminant validity, cross-loadings and the Fornell–Larcker criterion are used. The discriminant validity test with cross-loading values demonstrates that the indicator values for the latent variables are higher than those of other variables, thereby meeting the validity criteria.

In Table 4, the Fornell–Larcker criterion test, which employs the square root AVE values of each variable, confirms that these values are greater than the correlations with other variables, thus meeting the specified requirements. Following this, the reliability test is conducted to

Table 2. Description of variable indicators with mean and standard deviation values

Variable	Code	Indicator	Mean	SD
<i>Functional positioning</i> (Sivadasan <i>et al.</i> , 2020)	FP1	Green residential property is comfortable	4.212	0.788
	FP2	Green residential property is of a high quality	4.193	0.721
	FP3	Green residential property is very safe	4.037	0.794
	FP4	Green residential property is easy to use	3.714	0.946
<i>Green positioning</i> (Sivadasan <i>et al.</i> , 2020)	GP1	Green residential property is more energy efficient (LED lights)	4.383	0.770
	GP2	Green residential property utilizes an advanced technology (Home appliances that utilizes sensors)	3.758	1.072
	GP3	Green residential property reduces air pollution	4.494	0.750
	GP4	Green residential property is modern and follows the modern lifestyle	4.119	0.850
	GP5	Green residential property is very innovative	4.327	0.779
<i>Emotional positioning</i> (Sivadasan <i>et al.</i> , 2020)	EP1	Green residential property is familial	3.803	1.018
	EP2	Green residential property is well-known	3.368	1.115
	EP3	Green residential property has a positive impact on the environment	4.543	0.630
	EP4	Green residential property is of a high value	3.996	0.906
	EP5	Green residential property is modern	4.253	1.196
	EP6	Green residential property has an environmentally friendly concept (the amount of tree planting around the residential area)	4.201	0.802
<i>Attitude toward environment</i> (Sivadasan <i>et al.</i> , 2020)	ATE1	I need to protect the environment	4.468	0.714
	ATE2	I need to reduce pollution	4.528	0.703
	ATE3	I need to take care of the environment	4.550	0.611
	ATE4	I am willing to take care of the environment in the long term	4.554	0.641
	ATE5	I am responsible for the environment	4.372	0.802
<i>Perceived financial risk</i> (Tan and Goh, 2018)	PFR1	Purchasing a green residential property is an inappropriate use of money	2.067	1.050
	PFR2	Purchasing a green residential property is a poor investment choice	2.126	1.005
	PFR3	Purchasing a green residential property is not profitable for me	2.145	1.041
	PFR4	I will regret purchasing a green residential property	1.970	1.005
<i>Purchase intention</i> (Sivadasan <i>et al.</i> , 2020; Tan and Goh, 2018)	PI1	I intend to purchase a green residential property in the future due to my concern for the environment	3.870	0.855
	PI2	I intend to purchase a green residential property in the future due to its positive impact on the environment	4.019	0.778
	PI3	I would be glad to purchase a green residential property in the future because of the environmentally friendly concept	4.149	0.800
	PI4	When purchasing a property, I am planning to purchase a green residential property rather than a conventional one	3.870	0.868
	PI5	When purchasing a property, I prefer purchasing a green residential property than a conventional one	3.851	0.849

Source(s): Data processed by the authors

measure the accuracy and consistency of the variables using Cronbach's alpha and composite reliability, both showing values greater than 0.6. Indicators' outer loading values are selected based on composite reliability (CR), with each variable displaying values greater than 0.7, confirming the reliability of the indicators. Tables 3 and 4 present the results of the validity and reliability tests, both of which meet the required criteria.

The inner model analysis examines the relationships between latent variables using the R-square coefficient of determination, which measures how well the variance in the

Table 3. Outer model assessment

Variable	Indicator	Outer loadings	CA	CR	AVE
Functional positioning	FP 1	0.774	0.794	0.799	0.770
	FP 2	0.788			
	FP 3	0.814			
	FP 4	0.765			
Green positioning	GP 2	0.566	0.720	0.810	0.751
	GP 3	0.829			
	GP 4	0.643			
	GP 5	0.813			
	GP 5	0.813			
Emotional positioning	EP 1	0.658	0.775	0.807	0.517
	EP 2	0.561			
	EP 3	0.759			
	EP 4	0.793			
	EP 6	0.796			
	EP 6	0.796			
Attitude toward environment	ATE 1	0.874	0.925	0.927	0.617
	ATE 2	0.898			
	ATE 3	0.892			
	ATE 4	0.893			
	ATE 5	0.827			
Perceived financial risk	PFR 1	0.841	0.890	0.900	0.521
	PFR 2	0.868			
	PFR 3	0.919			
	PFR 4	0.840			
Purchase intention	PI 1	0.885	0.918	0.927	0.753
	PI 2	0.886			
	PI 3	0.877			
	PI 4	0.845			
	PI 5	0.839			

Source(s): Data processed by the authors

Table 4. Fornell–Larcker criterion

	Functional positioning	Green positioning	Emotional positioning	Attitude toward environment	Perceived financial risk	Purchase intention
Functional positioning	0.786					
Green positioning	0.564	0.722				
Emotional positioning	0.663	0.563	0.719			
Attitude toward environment	0.510	0.428	0.625	0.877		
Perceived financial risk	−0.151	−0.063	−0.249	−0.279	0.867	
Purchase intention	0.601	0.450	0.645	0.595	−0.236	0.867

Source(s): Data processed by the authors

endogenous variable is explained by the exogenous variable. Table 5 displays the *R*-square value on attitude toward environment and purchase intention. Changes in attitude toward environment can be moderately explained by 41.1% ($R^2 = 0.411 > 0.25$) by green brand

Table 5. R-square value

	R-square
Attitude toward environmental	0.411
Purchase intention	0.359

Source(s): Data processed by the authors

positioning (FP, GP and EP). Also, changes in purchase intention can be explained by attitude toward environment and perceived financial risk moderately by 35.9% ($R^2 = 0.359 > 0.25$), while the remaining 64.1% is explained by other variables. According to the research model from the conceptual framework, there is a high predictive relevance of the model because the Q-square value is 62.2% > 0 (Hair *et al.*, 2022).

The final stage of the analysis involves hypothesis testing using p -values (Figure 2). Table 6 on the direct path analysis shows that both functional positioning and emotional positioning significantly impact attitude toward environment. Additionally, purchase intention is significantly influenced by the attitude toward environment. Furthermore, the indirect path analysis reveals that functional positioning and emotional positioning significantly affect purchase intention (p -values < 0.05).

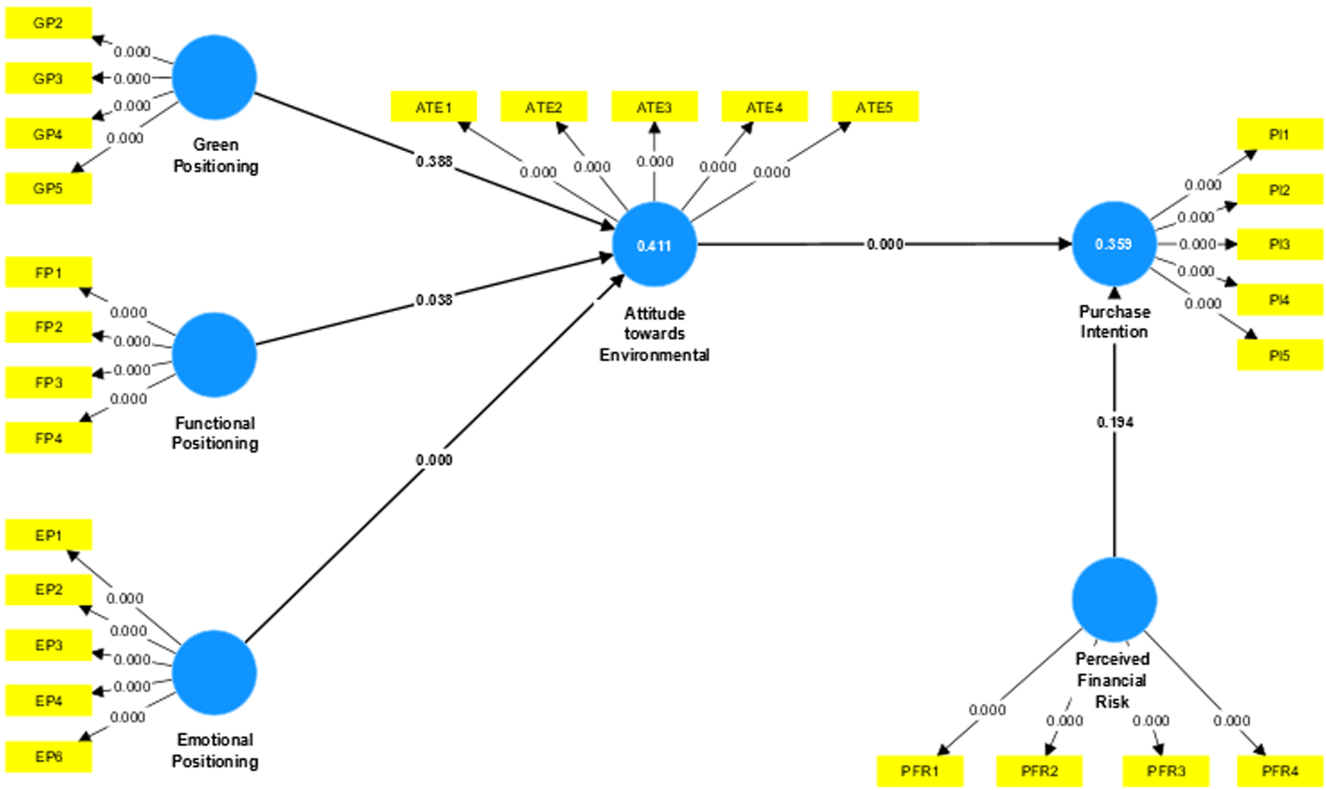
5. Discussion

5.1 Grand brand positioning toward attitude toward environment

Green brand positioning, including both functional and emotional positioning, significantly influences attitude toward environment. In contrast, green positioning does not have a significant effect. This study also demonstrates that both functional and emotional positioning influence purchase intention through the mediation of environmental attitudes. Functional positioning emphasizes the practical benefits of eco-friendly homes, such as comfort, high quality and safety. Developers often enhance these functional aspects by integrating smart home technology, which offers benefits like energy savings, low carbon emissions and recyclable materials (Gong *et al.*, 2020). These positive attributes make green homes more appealing to consumers, increasing their willingness to invest. This finding aligns with Wang (2016), who states that functional positioning positively influences the adoption of eco-friendly products, despite challenges like potential user-friendliness issues and imitation by competitors. Consequently, developers should focus on branding differentiation strategies for green homes. Functional positioning becomes a crucial strategy for attracting consumer attention and is considered the most advantageous among the three types of positioning (Huang *et al.*, 2014).

Emotional positioning also significantly influences attitude toward environment. This study demonstrates that green housing is perceived positively as a modern and eco-friendly product. According to Hartmann *et al.* (2005), consumers experience positive emotions when interacting with nature or using nature-related products. This emotional response enhances the value of attitude (Marwat *et al.*, 2023) and motivates consumers to proactively protect the environment by using eco-friendly products (Sivadasan *et al.*, 2020). Emotional positioning shapes consumer perceptions, evoking feelings of warmth, increased social identity, closeness to nature and an indirect sense of saving energy and reducing carbon emissions (Gong *et al.*, 2020). Therefore, a well-crafted marketing strategy that leverages emotional positioning can effectively convey implicit messages through the marketed products (Hartmann *et al.*, 2005).

On the other hand, green positioning does not significantly influence attitude toward environment. This is due to a lack of information and availability of green housing. A significant 87% of respondents stated they had never lived in green housing before, indicating a lack of familiarity with or understanding of green housing. To address this, companies need to enhance their green value and innovate their branding strategies. Strengthening the green brand image and diversifying green branding strategies across products and services are



Source(s): Figures by the authors

Figure 2. Diagram of path coefficients and t-statistics

Table 6. Path coefficient result

Variable	Original sample	t-statistics	p-values
<i>Direct effects</i>			
Functional positioning → Attitude toward environment	0.147	2.079	0.038*
Green positioning → Attitude toward environment	0.070	0.863	0.388
Emotional positioning → Attitude toward environment	0.488	6.854	0.000*
Attitude toward environment → Purchase intention	0.574	10.384	0.000*
Perceived financial risk → Purchase intention	-0.076	1.299	0.194
<i>Indirect effects</i>			
Functional positioning → Attitude toward environment → Purchase intention	0.085	1.980	0.048*
Green positioning → Attitude toward environment → Purchase intention	0.040	0.834	0.404
Emotional positioning → Attitude toward environment → Purchase intention	0.280	6.084	0.000*
Information: significant at $\alpha = 5\%$			
Source(s): Data processed by the authors			

essential (Lin and Zhou, 2020). Huang *et al.* (2014) emphasize the need for increased green brand knowledge (GBK) to raise consumer awareness and concern for the environment.

5.2 Attitude toward environment and perceived financial risk toward purchase intention

This study demonstrates that attitude toward environment significantly influences purchase intention. A sense of responsibility toward the living environment – such as efforts to reduce air pollution, preserve the environment and maintain long-term environmental sustainability – serves as a positive motivator for respondents. Sivadasan *et al.* (2020) stated that attitude drives product purchasing behavior. Someone with a better attitude would have a higher intention to act (Ajzen, 1991). Consumers strive to protect their surroundings by purchasing or using eco-friendly products (Ayad *et al.*, 2021; Jaiswal and Kant, 2018; Tan and Goh, 2018). Arttachariya (2012) states that consumers using green products develop environmental values, leading to positive attitudes that shape their perception of eco-friendly products and discourage them from buying conventional products, even at lower prices (Ayad *et al.*, 2021; Wang *et al.*, 2022). Mohd Suki (2016) also emphasizes that for companies to grow and meet their targets, they must focus on green brand positioning.

This study shows that perceived financial risk does not significantly influence purchase intention of green homes; it is possible that consumers do not see financial risks such as higher costs, potential for poor investment and potential regret – as a direct barriers at the time of purchases. This finding aligns with Tan and Goh (2018) and Ha *et al.* (2024), which indicate that perceived financial risks have a limited impact on the intention to purchase green homes. Therefore, it is imperative for developers to implement effective marketing strategies to increase consumer understanding of these products. A low understanding contributes to consumer hesitation, as green homes are often considered new and novel products (Hwang and Choe, 2020) and green residential prices are more expensive than conventional homes (Olanrewaju *et al.*, 2020), resulting in consumers questioning whether the benefits are worth the additional costs (Wu *et al.*, 2011) further emphasized that perceived higher initial and maintenance costs may deter consumers from purchasing green homes.

5.3 Conclusion and suggestion

Studies have been conducted on purchase intention for green residential properties in several cities in Indonesia, including Jakarta, Surabaya and Makassar. These cities represent active

areas in developing GLCs. The results indicate that both functional positioning and emotional positioning significantly influence purchase intention, with attitude toward environmental as a mediating variable. However, green positioning does not significantly impact purchase intention. This is due to the limited development of green homes developed by developers, insufficient specific regulations and incentives from the government for green homes as well as the lack of consumer understanding of the specific differences between conventional and green houses. To support sustainable environments, there is a need to enhance consumer knowledge about green housing. In accordance with the attitude-behavior-context (ABC) theory, this study expands knowledge by evaluating the mediating role of attitude toward environment in the relationship between green brand positioning and purchase intention for green residential properties.

5.4 Managerial implications

Managers should adopt a logical and systematic approach to understanding environmentally conscious consumer attitudes and their purchase intentions for green homes. Functional and emotional positioning, as well as consumer values, are good predictors of green purchase intentions. Therefore, marketing managers can develop innovative marketing strategies and effective policies to boost consumer purchase intentions. To promote green homes, a manager might conduct educational and engaging advertising campaigns. Positioning a brand as a product in the GLC requires a strong commitment to ethical principles in practice. Practitioners and marketers of GLCs can benefit positively if they instill the positive values of the offered housing product into consumers.

5.5 Study limitations and future research

This study did not consider the role of traditional architecture and its contribution to reducing embedded carbon in Indonesia. Traditional architectural practices often utilize low-carbon materials and sustainable design principles. Future studies could investigate how integrating traditional architecture methods into modern green residential development might impact environmental benefits and consumer appeal. Furthermore, this study is also cross-sectional, which means it cannot provide definitive conclusions about how consumer perceptions change over time. Future research should use a longitudinal design to observe how consumer attitudes and intentions evolve over time.

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