

The Impact of Green Marketing on Green Consumption Intentions of Young People in Vietnam: The Mediating Role of Green Brand Equity

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Abstract

This study provides insights into how businesses can leverage green brand equity as an effective tool to enhance green consumption intentions among young people. The research highlights not only the practical importance of green consumption and environmental concerns in Vietnam but also contributes to the theoretical foundation of green marketing. The findings indicate that green brand equity serves as a mediating factor in the relationships between Green Product, Green Price, Green Place, and Green Promotion. Specifically, the effect of Green Product (PRO) on Green Consumption Intentions (GPI) through the mediating variable Green Brand Equity (GBE) is 0.240. The effect of Green Price (PRI) through GBE on GPI is 0.200. The effect of Green Place (PLA) through GBE on GPI is 0.226. The effect of Green Promotion (PRM) through GBE on GPI is 0.216.

Keywords: green consumption intentions, green brand equity, green marketing.

1. Introduction

Practical Rationale

Climate change and environmental pollution have become urgent global challenges, with Vietnam being particularly affected. The Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) warns that greenhouse gas emissions from human activities are at their highest levels in history, leading to severe climate changes such as global temperature rise, rising sea levels, and extreme weather events (IPCC, 2021). Additionally, the World Water Quality Report by the United Nations Environment Programme (UNEP) highlights that freshwater sources are increasingly polluted due to industrial, agricultural, and urbanization activities, severely impacting human health and ecosystems.

In Vietnam, especially in major cities like Hanoi and Ho Chi Minh City, air pollution and plastic waste are reducing the quality of life and demanding sustainable development solutions. In this context, green marketing emerges as a crucial strategy, not only supporting businesses in fulfilling their corporate social responsibility (CSR) but also helping to minimize negative environmental impacts.

Green consumption trends are gaining increasing attention in Vietnam, particularly among young people. According to Nielsen IQ (2023), 80% of young Vietnamese consumers are willing to pay more for environmentally friendly products. Consumers aged 16 to 30 are not only the main target group but also play a pioneering role in spreading green living trends. This generation is highly tech-savvy, has easy access to information via social media, and possesses a strong sense of community responsibility. Therefore, they have the potential to become "natural ambassadors" for green products and services, helping to enhance social awareness and encouraging businesses to implement more effective green marketing strategies.

Amid increasing competition, businesses in Vietnam are under pressure to adapt to consumers' growing demand for sustainability. Many companies are investing heavily in environmentally friendly products, ranging from green transportation and recyclable packaging to health-conscious household products. However, persuading consumers to switch to these products is not solely dependent on quality or price—it also requires green brand image development, innovative communication strategies, and market differentiation.

Research by Tiwari et al. (2011) indicates that successful green marketing companies emphasize: Reducing resource consumption, Optimizing production processes, Building brand value linked to environmental responsibility.

These strategies help companies gain consumer trust and support, strengthening their market position in the green economy.

Theoretical Rationale

Although green marketing has been widely studied globally, research focused on Vietnam's market remains limited, particularly concerning young consumers and the mediating role of green brand equity.

According to Davari & Strutton (2014), green brand equity not only strengthens customer trust but also plays a critical role in promoting green consumption intentions. Modern marketing theories, such as the Theory of Planned Behavior (TPB), suggest that consumer intentions are influenced by: Attitudes, Social norms, Perceived behavioral control (Ajzen, 1991)

Green marketing, by building green brand equity, can influence these factors, thereby enhancing green consumption intentions.

Research by Rahbar & Abdul Wahid (2011) identifies the key components of green brand equity, including: Brand awareness, Customer loyalty, Perceived quality

All of these factors contribute to consumer decision-making. However, further research is needed to better understand the mediating role of green brand equity in linking green marketing to consumption intentions, especially in the context of Vietnam.

Research Significance

The topic "**The Impact of Green Marketing on Green Consumption Intentions of Young People in Vietnam: The Mediating Role of Green Brand Equity**" was selected not only to address practical issues related to consumption and environmental concerns in Vietnam but also to contribute to the theoretical foundation of green marketing.

Through this study, we aim to provide valuable insights into how businesses can utilize green brand equity as an effective tool to drive green consumption intentions among young people.

2. Theoretical Framework

2.1. Green Marketing

Green marketing reflects a marketing strategy that focuses on environmentally friendly products and services to align with sustainable consumption trends. James R. Situmorang (2011) defines green marketing as "the marketing of products perceived as environmentally safe." These activities include product innovation, packaging, production processes, and advertising. Green marketing not only enhances a company's image but also contributes to increase sales, improved customer feedback, and strengthened competitive advantage (Pujari, 2003).

2.2. Green Products

Green products are designed to minimize negative environmental impacts, utilize renewable resources, and conserve energy (Tiwari et al., 2011). They help protect the environment and promote sustainable development. Consumer trends show a growing preference for environmentally friendly products, even at a higher price (Peluse et al., 2021).

2.3. Green Pricing

Green pricing reflects the costs associated with environmental protection, which are often higher initially but lead to long-term savings (Fan & Zeng, 2011). Consumers are willing to pay more for the perceived positive value of green products, while businesses can use marketing campaigns to raise awareness of these products' value (Awan, 2011).

2.4. Green Place

Green place focuses on optimizing logistics and distribution channels to reduce carbon emissions (Shil, 2012). Businesses need to develop sustainable distribution strategies and ensure green products are easily accessible to encourage consumer purchases (Yazdanifard & Mahmoud, 2018).

2.5. Green Promotion

Green promotion includes marketing tools aimed at promoting environmentally friendly products, ranging from advertising and marketing materials to communication campaigns (Shil, 2012). Green advertising messages can influence consumer purchasing behavior by emphasizing the environmental benefits of the products (Rahbar & Wahid, 2011).

2.6. Green Consumer Behavior

Green consumer behavior involves choosing products and services that reduce negative environmental impacts (Ottman, 1998). The Theory of Planned Behavior (Ajzen, 1991) highlights the role of attitudes, social norms, and perceived behavioral control in encouraging green consumption (Chen & Tung, 2014).

2.7. Green Brand Equity

Green brand equity refers to the added value of a brand due to its environmental commitments and actions (Chen, 2010). Factors such as green quality, green trust, and green innovation contribute to increasing customer confidence and brand loyalty (Kang & Hur, 2012).

2.8. Theories on Purchasing Behavior

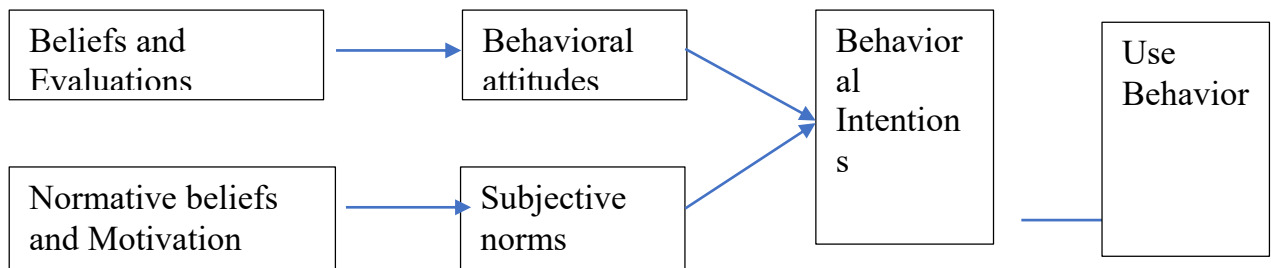
Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA), introduced by Ajzen and Fishbein in 1967 and refined in 1975, emphasizes the role of consumer intentions in explaining human behavior, particularly in decision-making. TRA focuses on the relationship between attitudes and consumer behavior through two main factors:

- **Attitude:** A positive or negative perception of an action, influenced by beliefs and personal evaluations.
- **Subjective Norms:** The perceived social pressure regarding a behavior, influenced by the beliefs and expectations of others.

TRA has been widely applied in various fields, including healthcare, pharmaceuticals, and technology, to effectively predict and analyze consumer trends.

Figure 2.1. Theory of Reasoned Action (TRA)

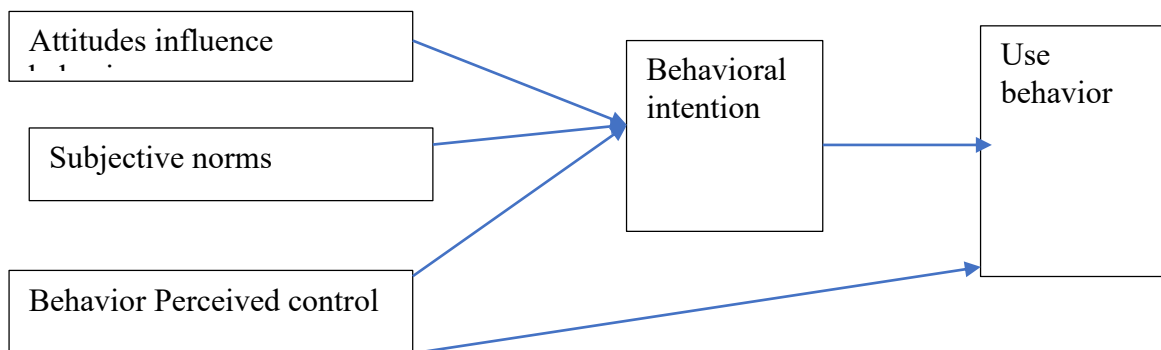


Source: Ajzen and Fishbein (1975)

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) by Ajzen (1991) was developed based on the Theory of Reasoned Action (TRA) to predict an individual's intention to engage in a specific activity at a particular place and time. This theory enhances the predictive accuracy of individual behavior by expanding on the TRA model. The TPB identifies key factors influencing behavioral intention, including: (1) "attitude"; (2) "subjective norms"; and (3) "perceived behavioral control."

Figure 2.2. Theory of Planned Behavior (TPB)



Source: Ajzen (1991)

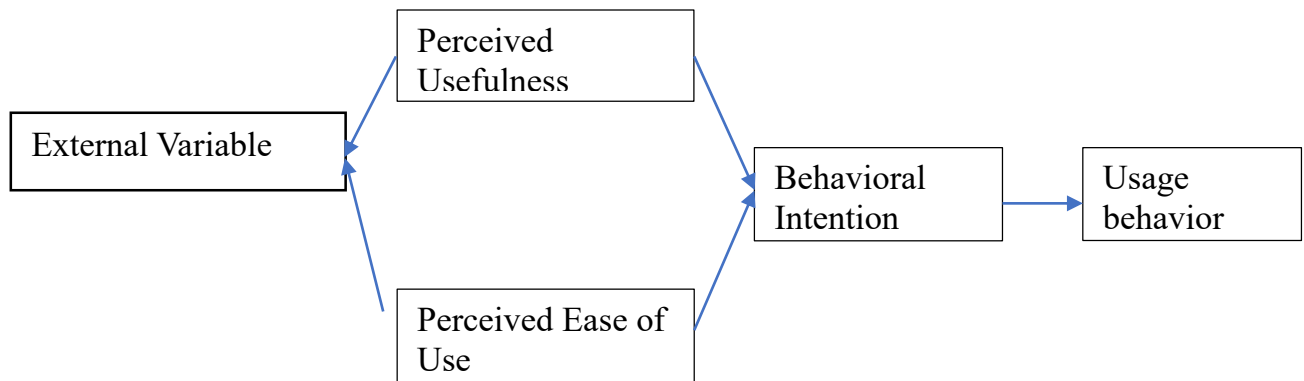
Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), illustrated by Davis (1986), is an extension of the Theory of Reasoned Action (TRA) with additional factors, including perceived usefulness, ease of use, and external influences. According to Davis (1986), perceived usefulness is defined as the user's subjective judgment of how using a specific application system will enhance work performance in a given context. Meanwhile, perceived ease of use refers to the level of effort expected by users.

According to the TAM model, **perceived ease of use** indirectly influences the intention to use technology through **perceived usefulness** (Davis et al., 1989; Venkatesh et al., 2003).

Both **perceived ease of use** and **perceived usefulness** are considered positively related to the behavioral intention to adopt technology, also known as the intention to engage in online learning (Park & Lee, 2009).

Figure 2.3. Technology Acceptance Model (TAM)



Source: Venkatesh et al. (2003)

Literature Review and Research Gap

The impact of green marketing on green consumption intention is a prevalent research topic in business management, especially as environmental concerns gain increasing attention.

The **initial phase** of green marketing research focused on building awareness and understanding of green consumption intention. During this period, researchers explored fundamental concepts and factors influencing eco-friendly consumer behavior. Peattie (1992) was among the pioneers who introduced the concept of green marketing, emphasizing that businesses should integrate sustainable values into their strategies to meet the needs of environmentally conscious consumers. Ottman (1993) expanded this research by analyzing the challenges and opportunities of green marketing, highlighting the role of marketing in enhancing consumer awareness of eco-friendly products while identifying obstacles such as high costs and the risk of "greenwashing." Laroche, Bergeron, and Barbaro-Forleo (2001) further contributed by analyzing factors such as attitudes, perceptions, and environmental beliefs, demonstrating their critical role in shaping green consumption intentions. Studies from this phase laid the groundwork for a deeper understanding of the relationship between green marketing and consumer intention while emphasizing the importance of awareness and attitudes in sustainable consumption behavior (Laroche, M., Bergeron, J., & Barbaro-Forleo, G., 2001).

The **second phase** of green marketing research shifted towards using theoretical models to analyze the factors influencing green consumption intention. Chan (2001) applied the Theory of Planned Behavior (TPB) to explain green shopping intentions in China, emphasizing the role of social pressure and perceived behavioral control in shaping consumer behavior. Tanner and Kast (2003) expanded on this by identifying environmental knowledge and ethical values as key drivers of sustainable purchasing behavior. Meanwhile, D'Souza, Taghian, and Khosla

(2007) highlighted the interaction between environmental beliefs, pricing, and product quality in influencing purchasing decisions. This phase marked a transition from a mere focus on awareness to a more comprehensive understanding of multidimensional factors, including psychological, social, and economic aspects, contributing to a solid theoretical foundation for studies on green consumption intention.

The **modern phase** of research on green consumption intention strongly focuses on the role of technology and emotional factors in influencing consumer behavior. Studies have shown that technology not only facilitates consumer access to information about green products but also influences their purchasing decisions. According to Kumar et al. (2021), e-commerce platforms and social media play a crucial role in delivering sustainability messages while encouraging purchase intentions through community reviews and targeted advertising campaigns. Additionally, emotional factors, such as empathy for environmental issues or a sense of pride in using green products, have been identified as key motivators in this phase. Hartmann and Apaolaza-Ibáñez (2012) found that marketing campaigns that evoke positive emotions—such as joy from contributing to environmental protection—significantly enhance green consumption intention. The integration of modern technology and emotional appeal not only improves consumer engagement but also promotes sustainable shopping behaviors, highlighting a shift from mere awareness to emotional experiences in green consumption.

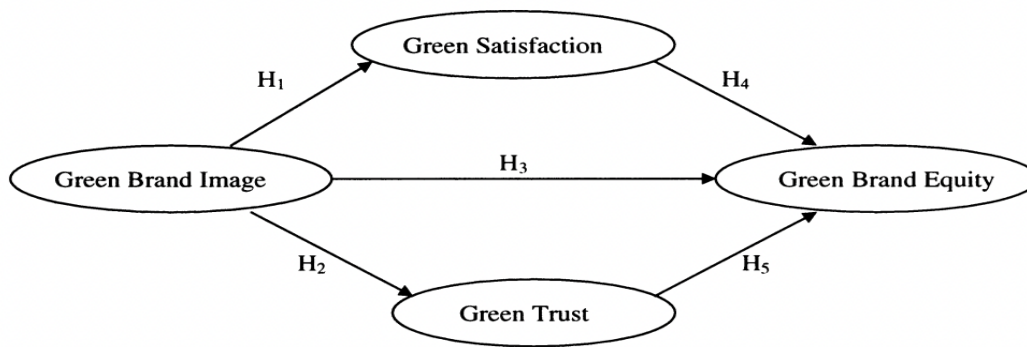
3. Related Studies on the Impact of Green Brand Image, Green Marketing, and Environmental Attitudes on Green Purchase Intention

Green Brand Image and Green Brand Equity

Yu-Shan Chen (2010) identified green brand image, along with green satisfaction and green trust, as the primary factors influencing green brand equity. The study found that companies should focus on building a brand image aligned with sustainable values to foster customer loyalty and trust, especially in industries such as renewable energy and sustainable consumer goods. The research highlights the direct impact of green brand image on green brand equity, as well as the mediating effects of green satisfaction and green trust among Taiwanese consumers of IT and electronic products.

To refine the questionnaire, the study was reviewed by six experts and ten experienced consumers in purchasing IT and electronic products. A total of 650 questionnaires were distributed, with 254 valid responses and 30 invalid ones, resulting in a response rate of 39.1%. The data was analyzed using SPSS and AMOS software. The study suggests that companies should allocate more resources to green brand image, green satisfaction, and green trust, as these factors positively correlate with a company's green brand equity.

Figure 3.1. Research Model of Yu-Shan Chen (2010)

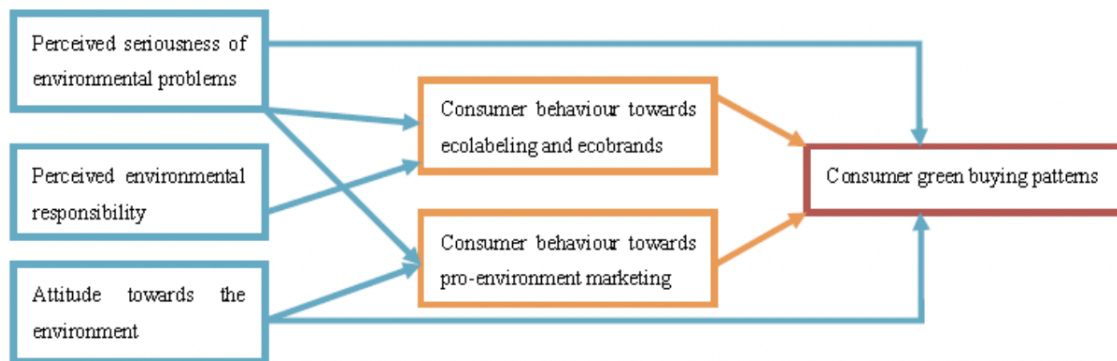


Source: Yu-Shan Chen

Environmental Attitudes and Perceptions in Green Marketing

Cherian and Jacob (2012) emphasized that environmental attitudes and perceptions play a crucial role in green marketing strategies. Their findings indicate that environmental awareness drives sustainable consumption behavior, especially when customers perceive that marketed products align with the green values they prioritize.

Figure 3.2. Research Model of Jacob Cherian and Jolly Jacob (2012)



Source: Jacob Cherian and Jolly Jacob

Green Marketing and Innovation in Consumer Behavior

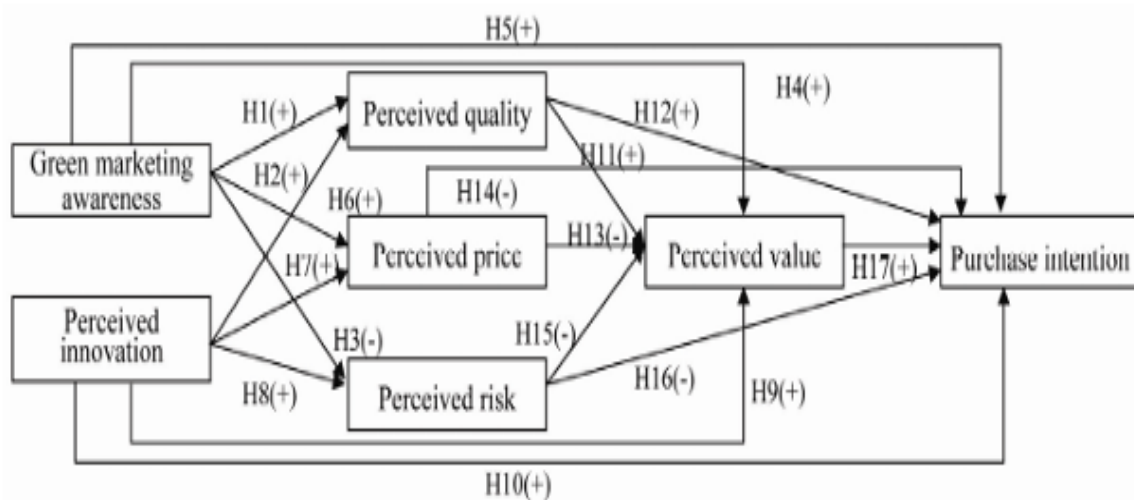
Shwu-Ing Wu and Yen-Jou Chen (2014) demonstrated that the combination of green marketing and innovation is a powerful driver of consumer purchase intentions. Their study analyzed the impact of green marketing awareness and innovation on consumers' purchase intentions for two products: energy-saving lamps and environmentally friendly detergents. Based on 320 survey responses for lamps and 310 for detergents, the study drew three key conclusions:

1. Green marketing awareness enhances consumers' perception of product quality and value, thereby increasing purchase intention.

2. Perceived innovation in energy-saving lamps influences quality, price, and value, while for detergents, innovation primarily affects quality and value—both leading to increased purchase intentions.
1. The impact of green marketing awareness on purchase intention is greater than the influence of perceived innovation.

The study utilized SEM analysis to establish a relationship model between these factors, providing a validated measurement scale applicable to both academic research and practical industry use.

Figure 3.3. Research Model of Shwu-Ing Wu & Yen-Jou Chen (2014)



Source: Shwu-Ing & Yen-Jou Chen

Green Marketing in the Food and Beverage Industry: A Study on Starbucks

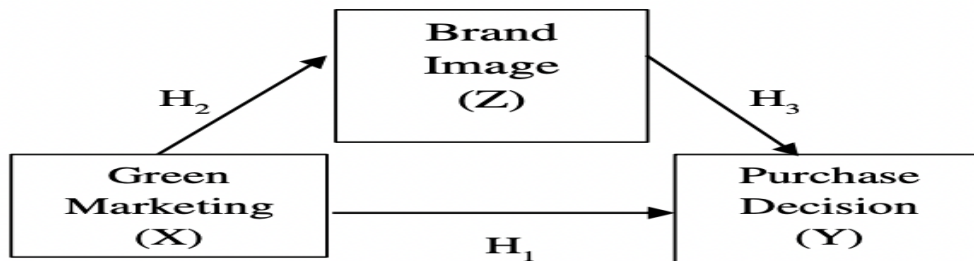
Dwipamurti (2018) found that implementing green marketing strategies not only enhances brand image but also strengthens customer purchase decisions. Starbucks has successfully raised consumer awareness of its green initiatives, from using recycled materials to encouraging reusable cups.

The study examined the impact of green marketing on brand image and purchase decisions, surveying 118 Starbucks consumers aged 18 to 35. Data were analyzed using SPSS software, yielding the following results:

1. The green marketing variable (X) directly influences brand image (Z), demonstrating that green marketing initiatives contribute to a positive brand perception of Starbucks as an environmentally friendly company.
2. Green marketing (X) positively impacts purchase decisions (Y) with a significant effect. This indicates that Starbucks' green marketing efforts help consumers make purchasing decisions.

- Brand image (Z) positively affects purchase decisions (Y) with a significant impact, suggesting that a strong brand image fosters consumer confidence and facilitates purchasing decisions.

Figure 3.4. Research Model of I Gusti Agung Nanda Dwipamurti, M. Kholid Mawardi, and Inggang Perwangsa Nuralam (2018)

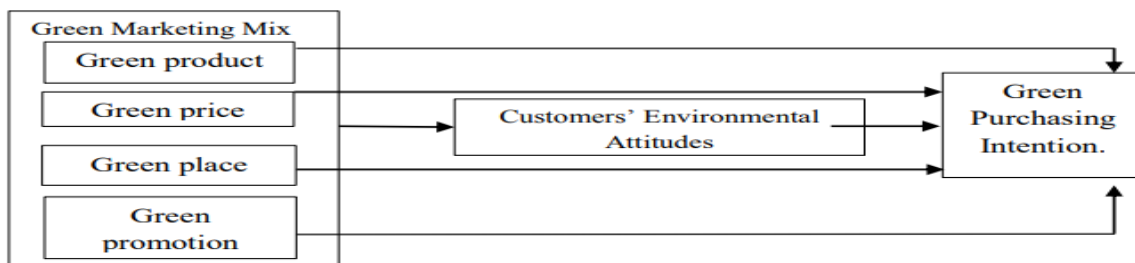


Source: I Gusti Agung Nanda Dwipamurti, M. Kholid Mawardi, and Inggang Perwangsa Nuralam

Green Factors in Purchase Decisions

Karunarathna et al. (2020) analyzed factors such as green product, green price, green place, and green promotion in influencing sustainable consumer behavior. The study recommends that businesses should not only focus on green products but also develop appropriate pricing strategies and distribution channels to enhance green purchase intentions.

Figure 3.5. Research Model of Karunarathna et al. (2020)



Source: Karunarathna et al.

Psychological Benefits and Green Marketing

Liao et al. (2020) demonstrated that **green psychological benefits** (such as a sense of pride or environmental responsibility), when combined with **green marketing strategies**, enhance the connection between customer values and purchase intentions. The study highlights the importance of effectively communicating environmental values so that customers perceive benefits not only in material terms but also in psychological and emotional aspects.

Figure 3.6. Research Model of YK Liao et al. (2020)

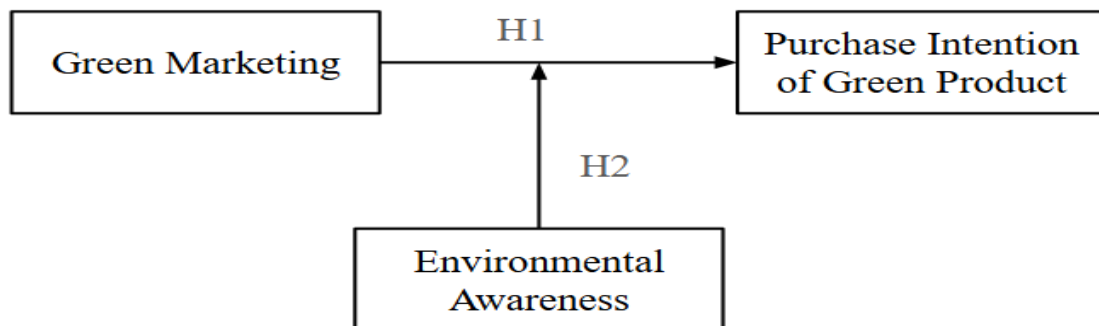


Source: YK Liao et al.

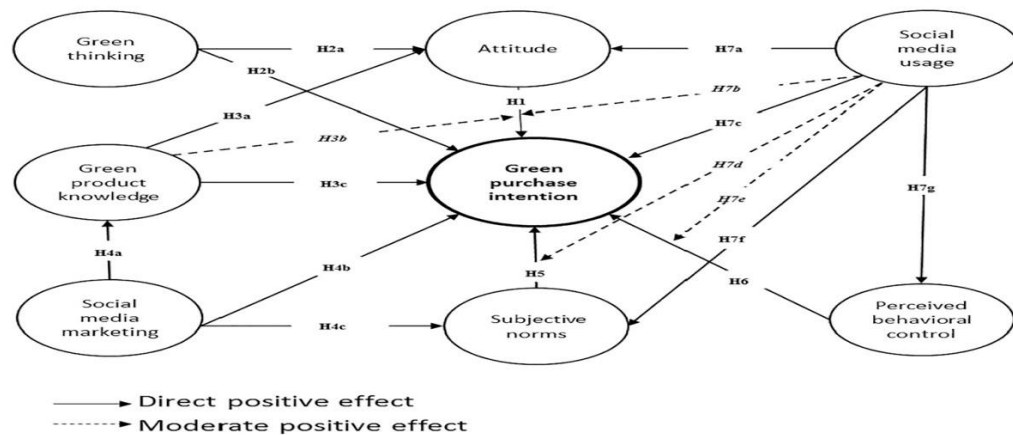
Social Media and Environmental Awareness

Krisdayanti (2022) and Nekomahmud (2022) emphasized that **social media is a powerful tool for enhancing environmental awareness and promoting green consumption**. Platforms like **Instagram and Facebook** help spread green messages, thereby increasing consumers' purchase intentions through **high interactivity and wide reach**.

Figure 3.7. Research Model of Krisdayanti and Widodo (2022)



Source: Krisdayanti and Widodo

Figure 3.8. Research Model of Md. Nekmahmud et al. (2022)

Source: Md. Nekmahmud et al.

4. Research Gap

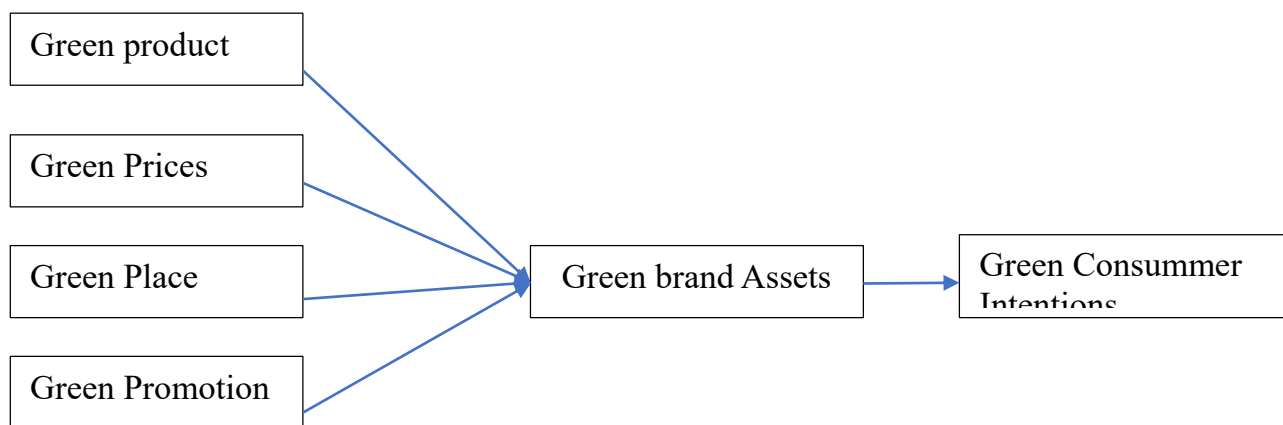
Through a review of existing studies, the authors recognize that numerous research works have examined the impact of green marketing on purchase intentions for consumer goods and essential products. However, some areas remain underexplored, including:

1. The rising global interest in green living among young people. Green consumption, with significant growth potential, has emerged as a key trend in this context. Although some studies have analyzed the impact of green marketing on purchase intentions in general, there is a lack of research specifically examining the impact of green marketing on green consumption intentions. Consumers are becoming increasingly aware of the importance of environmental protection, leading to a growing preference for sustainable and eco-friendly products.
2. In Vietnam, research on green marketing remains limited, despite green consumption being a priority for the government and an essential component of the national strategy.

Building on Research Model and Measurement Scales previous studies on the impact of green marketing on green consumption intentions, the authors integrate the Information Acceptance Model (IAM) by Sussman & Siegal (2003) and the Theory of Planned Behavior (TPB) by Ajzen (1991) along with marketing theories to develop a comprehensive research model.

After reviewing both domestic and international studies, the authors identified that combining IAM and TPB is an appropriate approach. Based on the research by Thoria Omer Mahmoud (2018), Karunarathna et al. (2020), and Balween Kaur, Veer P. Gangwar, and Ganesh Dash (2022), the authors selected four key green marketing factors for this study: Green Product, Green Price, Green Place, and Green Promotion

Additionally, Green Brand Equity was chosen as a mediating variable, based on its established connection in the study by I Gusti Agung Nanda Dwipamurti, M. Kholid Mawardi, and Inggang Perwangsa Nuralam (2018)



Source: Proposed by the Research Team

Figure 4.1. Proposed Research Model

Research Measurement Scale

Variable Name	Encoding	Measurement Scale	Source
Green Product	PRO1	Green products or services are solutions to environmental problems.	Bailey et al. (2016); 2018); Hossain & Rahman (2018); Misra and Singh (2016)
	PRO2	The products I use must not harm the environment.	
	PRO3	Green products and services are good for health.	
	PRO4	The quality of green products or services is better	
Green price	PRI1	Ecological benefits should align with the price of green products or services.	Bailey et al. (2016); 2018); Hossain & Rahman (2018); Mehraj and Qureshi (2020)
	PRI2	The price of green products or services should be reasonable to encourage consumer purchases.	
	PRI3	The price and quality of green products and services should be proportional.	
	PRI4	The enhanced performance of green products or services will justify their price.	

Green place	PLA1	Green products or services are frequently available nearby.	Hossain and Rahman (2018); Leonidou et al. (2013); Kautish et al. (2019)
	PLA2	Green products or services are always available nearby.	
	PLA3	Green products or services are widely available everywhere.	
Green promotion	PRM1	The product or service conveys its eco-friendliness by positioning its features or components as part of its branding efforts.	Hossain and Rahman (2018); Bailey et al. (2018); Misra and Singh (2016); Pettersson et al. (2016)
	PRM2	The product or service strives to minimize any negative environmental impact of marketing promotions.	
	PRM3	The product or service emphasizes environmental aspects in advertising.	
	PRM4	The product or service highlights its commitment to environmental protection in communications.	
	PRM5	The product or service's promotions highlight and inform customers about its environmental efforts.	
Green brand equity	GBE1	I choose to buy products from this brand instead of another because they are committed to environmental protection, even though both brands are of the same type.	Chen (2010)
	GBE2	Even if another brand also has eco-friendly features, I still prefer to buy products from this brand.	
	GBE3	Even when another brand is just as effective in environmental protection as this one, I still prefer purchasing from this brand.	
	GBE4	If another brand cares about the environment in the same way as this brand in any aspect, choosing products from this brand is still the smarter choice.	

Green consumption intention	GPI1	I am willing to pay more for a green product and avoid cheaper products that harm the environment.	Cosa et al. (2021); Kaur et al. (2022); Diva (2020); Kashi (2019), Lai and Cheng (2016)
	GPI2	I will consider buying green products because they help conserve energy.	
	GPI3	I will consider buying green products because they are made from recycled materials.	
	GPI4	I am aware that green products offer superior added value, so I am willing to pay more.	

Source: Proposed by the research team

5. Research Methodology

The study was conducted in two stages: qualitative research and formal quantitative research.

Qualitative research: To ensure the scientific validity and suitability of the research model, as well as to interpret the research results, the author applied qualitative research through interviews with five individuals. The interviewees were young people in Hanoi who had green consumption intentions influenced by green marketing campaigns from both domestic and international businesses. Through this process, the research team identified, removed, and replaced unclear wording in the measurement scales to refine the official scale for quantitative research.

- **Formal quantitative research:**

Research objectives: To validate the official scale using Cronbach’s Alpha and EFA through SPSS 27 software. To test research hypotheses, correlations, and the impact levels among independent, mediating, and dependent variables using Smart PLS 4 software.

Sample size: The study population consists of young people studying, working, and living in Hanoi.

Sample size determination: According to Harris (2010), the formula for calculating the minimum sample size for linear regression analysis is $n \geq 104 + m$, where n is the number of observations, and m is the number of variables (including dependent and independent variables). Applying this formula to the current study, with four independent variables and two dependent variables, the minimum required sample size is $n \geq 120$ observations.

According to Hair et al. (1998), the minimum sample size should be at least five times the total number of observed variables in the measurement scales to conduct exploratory factor analysis (EFA). Since the official questionnaire in this study includes 36 observed variables, the required minimum sample size is $24 \times 5 = 120$.

According to Hair et al. (2017), to ensure reliability when using PLS-SEM, the minimum sample size should be ten times the number of paths in the model. With five hypotheses in the research model, the minimum required sample size is 50 observations. Since this study employs PLS-SEM, linear regression analysis, and EFA, the minimum sample size must meet all three requirements above. Therefore, the minimum sample size required for this study is at least 120 observations. In practice, the research team selected a sample size of 700 observations, with 642 valid survey responses, significantly exceeding the minimum requirement. This approach ensures the accuracy and reliability of statistical analyses.

Sampling method: The survey was conducted in Hanoi, targeting young people. The research team distributed questionnaires to participants and calculated the observations collected accordingly, using a random sampling method. The sampling technique used in this study is **non-probability sampling**.

6. Research Results

6.1. Descriptive Statistics of the Formal Survey Sample

The research team conducted a survey with 700 young participants in Hanoi. The team distributed 500 online questionnaires and 200 offline questionnaires, collecting 442 valid online responses and 200 valid offline responses. After filtering out unanswered and invalid responses, 642 valid responses were retained for analysis.

Gender distribution: The sample included 322 female participants (50.2%) and 320 male participants (49.8%), showing no significant gender difference.

Age distribution: The survey covered a diverse range of age groups. The results showed the following distribution: 119 participants (28.5%) aged 15 to 18 (the largest group), 114 participants (17.8%) aged 19 to 21, 112 participants (17.4%) aged 30 and above, 101 participants (15.7%) aged under 15, 100 participants (15.6%) aged 26 to 30, 96 participants (15.0%) aged 22 to 25

Detailed results of the official research sample are presented in the table below:

Table 6.1. Detailed Results of the Official Quantitative Survey Sample

Indicators	Details	Quantity (People)	Ratio
Gender	Female	320	49.8%
	Male	322	50.2%
Age of youth	Under 15	101	15.7%
	15 to 18	119	18.5%
	19 to 21	114	17.8%
	21 to 25	96	15.0%
	26 to 30	100	15.6%
	Over 30	112	17.4%
Income	Under 3 million	236	36.8%
	From 3 - 7 million	245	38.2%
	From 7 - 15 million	90	14.0%
	Over 15 million	71	11.1%

Source: Compiled by the research team from data analysis

6.2. Assessment of the Measurement Model

6.2.1. Evaluation of Scale Reliability and Convergent Validity

Table 6.2. Statistics on Internal Consistency Reliability and Convergent Validity of the Scale

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
GBE	0.898	0.898	0.929	0.765
GPI	0.908	0.908	0.935	0.783
PLA	0.741	0.745	0.852	0.658
PRI	0.802	0.808	0.871	0.628
PRM	0.863	0.865	0.902	0.647
PRO	0.839	0.843	0.892	0.675

Source: Compiled by the research team from data analysis

The results indicate that all factor structures have good reliability, as both Cronbach's alpha and Composite Reliability (rho_c) coefficients are greater than 0.7.

6.2.2. Evaluation of Observed Variable Quality

From the data analysis process, the research team found that the outer loadings of all variables are greater than 0.7 and statistically significant, ensuring the convergent validity of the measurement scale.

Table 6.3. Outer Loading Coefficients of Variables

	GBE	GPI	PLA	PRI	PRM	PRO
GBE_1	0.876					
GBE_2	0.868					
GBE_3	0.889					
GBE_4	0.867					
GPI_1		0.886				
GPI_2		0.887				
GPI_3		0.875				
GPI_4		0.891				
PLA_1			0.823			
PLA_2			0.788			
PLA_3			0.821			
PRI_1				0.745		
PRI_2				0.825		
PRI_3				0.783		
PRI_4				0.814		
PRM_1					0.818	
PRM_2					0.764	
PRM_3					0.774	
PRM_4					0.841	
PRM_5					0.823	
PRO_2						0.786
PRO_3						0.824
PRO_4						0.855
PRO_1						0.819

Source: Compiled by the research team from data analysis

6.2.3. Assessment of Discriminant Validity

Table 6.4. HTMT Coefficient Table

	GBE	GPI	PLA	PRI	PRM	PRO
GBE						
GPI	0.772					
PLA	0.747	0.518				
PRI	0.778	0.643	0.439			
PRM	0.733	0.512	0.330	0.486		
PRO	0.785	0.532	0.396	0.488	0.457	

Source: Compiled by the research team from data analysis

The results of discriminant validity testing using the HTMT coefficient indicate that all HTMT values between variables are < 0.85 . This confirms that the measurement scales meet the discriminant validity criteria, as suggested by Henseler et al. (2015).

Based on these results, it can be concluded that the remaining measurement scales used in this study also ensure discriminant validity and meet the necessary conditions for assessing the fit of the measurement model.

6.2.4. Structural Model Testing

6.2.4.1. Multicollinearity Testing

Table 6.5. VIF Calculation Results

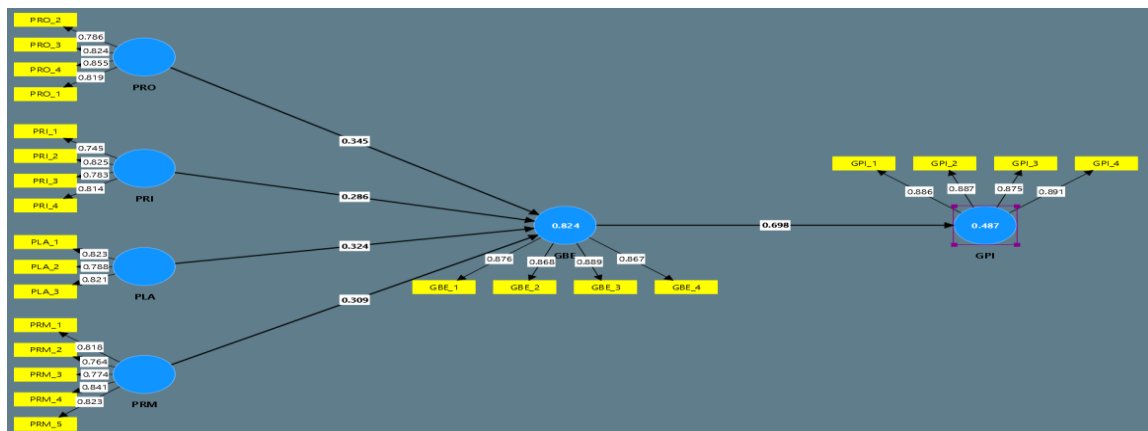
VIF Coefficient - Multicollinearity Assessment						
	GBE	GPI	PLA	PRI	PRM	PRO
GBE		1.000				
GPI						
PLA	1.194					
PRI	1.374					
PRM	1.307					
PRO	1.331					

Source: Compiled by the research team from data analysis

Based on the VIF calculation results from the PLS-SEM analysis tool, it can be seen that the variables Green Product, Green Price, Green Location, Green Promotion, Green Brand Equity, and Green Consumption Intention show no signs of multicollinearity.

6.2.4.1. Evaluation of the Significance of Direct Impact Relationships

Figure 6.6. Path Coefficient Results of the PLS-SEM Structural Model



Source: Compiled by the research team from data analysis

Table 6.7. Results of Direct Relationship Testing for Research Hypotheses

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
GBE -> GPI	0.698	0.696	0.035	19.959	0.000
PLA -> GBE	0.324	0.324	0.024	13.532	0.000
PRI -> GBE	0.286	0.285	0.024	12.151	0.000
PRM -> GBE	0.309	0.309	0.024	13.043	0.000
PRO -> GBE	0.345	0.345	0.026	13.386	0.000

Source: Compiled by the author group from data analysis.

Based on the analysis results using the Bootstrap technique, as shown in the table above, all direct relationships are accepted due to their statistical significance (P-value < 0.01). All relationships have an Original Sample (O) > 0, indicating that the direct relationships are positive.

The order of influence on Green Brand Equity, from strongest to weakest, is as follows: Green Product (0.345), Green Place (0.324), Green Promotion (0.309), Green Price (0.286)

6.2.5. Evaluation of the Significance of Indirect Effects

Table 6.8. Results of Evaluating Individual Indirect Relationships.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
PLA -> GBE -> GPI	0.226	0.225	0.018	12.766	0.000
PRI -> GBE -> GPI	0.200	0.198	0.020	9.897	0.000
PRM -> GBE -> GPI	0.216	0.215	0.019	11.508	0.000
PRO -> GBE -> GPI	0.240	0.240	0.020	11.969	0.000

Source: Compiled by the author group from data analysis.

From the results in the table above, all four indirect effects have a P-value < 0.01, indicating that Green Brand Equity (GBE) acts as a mediating variable in the relationship between Green Product (PRO), Green Price (PRI), Green Place (PLA), and Green Promotion (PRM). The effect of Green Product (PRO) on Green Purchase Intention (GPI) through GBE is 0.240. The effect of Green Price (PRI) on GPI through GBE is 0.200. The effect of Green Place (PLA) on GPI through GBE is 0.226. The effect of Green Promotion (PRM) on GPI through GBE is 0.216.

All Original Sample (O) values are greater than 0, confirming that the indirect effects are positive.

6.2.6. Results of R-Squared Coefficient Testing and Impact Level

R-Squared Coefficient Testing

Table 6.9. R-Squared Coefficient and Adjusted R-Squared Coefficient.

	R-square	R-square adjusted
GBE	0.824	0.823
GPI	0.487	0.486

Source: Compiled by the author group from data analysis.

From the data analysis table above: The Adjusted R-Squared (R^2) coefficient of Green Brand Equity (GBE) is 0.823, meaning that the independent variables related to Green Marketing—including Green Product, Green Price, Green Place, and Green Promotion—explain 82.3% of the variation in Green Brand Equity.

The R-Squared (R^2) coefficient of Green Purchase Intention (GPI) is 0.486, indicating that Green Brand Equity explains 48.6% of the variation in Green Purchase Intention.

Testing the Effect Size (f^2) Coefficient

Table 6.10. The Impact Level of Each Independent Variable on the Dependent Variable.

	GBE	GPI	PLA	PRI	PRM	PRO
GBE		0.948				
GPI						
PLA	0.498					
PRI	0.338					
PRM	0.415					
PRO	0.507					

Source: Compiled by the author group from data analysis.

The results processed using Smart PLS 4, as presented in the table above, indicate that among the independent variables affecting Green Brand Equity (GBE): Green Product (PRO), Green Place (PLA), and Green Promotion (PRM) all have an f^2 coefficient > 0.35 , indicating a strong effect on Green Brand Equity. Green Price (PRI) has an f^2 coefficient between 0.15 and 0.35, meaning it has a moderate effect on Green Brand Equity.

Thus, Green Price (PRI) has a moderate impact, while the remaining Green Marketing variables (Green Product, Green Place, and Green Promotion) have a strong impact on Green Brand Equity. Additionally, the calculations reveal that Green Brand Equity (GBE) has a strong impact on Green Purchase Intention (GPI), as indicated by an f^2 coefficient of 0.948.

6.2.7. Hypothesis Testing

Table 6.11. Hypothesis Testing Results.

Hypothesis	Content	Original Sample (O)	P value	Result
H1	The better the green product strategy, the higher the green brand equity.	0.345	0.000	Accepted
H2	The better the green pricing strategy, the higher the green brand equity.	0.286	0.000	Accepted
H3	The better the green place strategy, the higher the green brand equity.	0.324	0.000	Accepted
H4	The better the green promotion strategy, the higher the green brand equity.	0.309	0.000	Accepted
H5	The higher the green brand equity, the higher the green purchase intention.	0.698	0.000	Accepted

Source: Compiled by the author group from data analysis.

Based on the research results, the factors including "**Green Product**," "**Green Price**," "Green Place," "Green Promotion," "Green Brand Equity," **and** "Green Purchase Intention" all show positive figures and exhibit proportional influence. The research team proposes several recommendations and solutions to help businesses consider and adopt strategies that align with their brand marketing and sales goals.

7. Solutions to Enhance Green Purchase Intention Among Young Consumers in Vietnam

7.1. Strengthening Green Product Strategies to Promote Green Purchase Intention Among Young Vietnamese Consumers

According to the research results, Green Product has the strongest impact on Green Brand Equity. As public awareness continues to rise, consumers increasingly prioritize health and environmental concerns, making green product choices more relevant than ever.

First, selecting sustainable and safe raw materials:

Businesses must commit to using environmentally friendly and health-conscious materials. They should seek sustainable suppliers, such as those providing organic materials and avoiding harmful chemicals during production. For example, in the cosmetics industry, companies can prioritize natural ingredients and ensure products are free from parabens or other harmful substances. This not only protects the environment but also builds consumer trust in the quality and safety of the products.

Second, optimizing the production process:

Businesses should improve and streamline their production processes to minimize emissions and waste. Some practical methods include: Using energy-efficient equipment, Reducing water consumption, Implementing on-site recycling processes. For example, in the food industry, manufacturers can reduce plastic packaging and replace it with biodegradable or reusable materials. This reduces negative environmental impacts while cutting long-term production costs.

Third, conserving natural resources:

Companies should emphasize the efficient and sustainable use of natural resources, particularly non-renewable resources. In the fashion industry, brands can use **recycled** fibers or opt for sustainable materials like organic cotton, reducing the extraction of new resources. Similarly, in consumer goods manufacturing, companies can integrate recycling and reusing strategies within their production processes to reduce material consumption. This not only helps protect the environment but also reinforces the company's corporate social responsibility.

Fourth, ensuring transparent communication about green products:

To build consumer trust, businesses should provide clear and accurate information about the benefits and functionality of green products. Instead of generic advertising, they should highlight specific advantages, such as health benefits or environmental contributions. For instance, in the cleaning products industry, companies can emphasize that their products are free from toxic chemicals, making them safe for children and pets. This transparent marketing approach not only boosts product sales but also enhances brand reputation.

Fifth, encouraging green consumption:

Fifth, Encouraging Green Consumption: Businesses should develop communication campaigns to raise consumer awareness of the benefits of consuming green products. They can collaborate with environmental organizations to create programs that promote sustainable consumption, such as offering discounts on green products or encouraging customers to reuse products. In the retail sector, businesses can implement trade-in programs where customers exchange old products for new ones or provide discounts for customers who bring reusable bags. These initiatives help consumers recognize the importance of green consumption and encourage them to support environmentally friendly products.

7.2. Strengthening Green Place Strategies to Promote Green Purchase Intention Among Young Vietnamese Consumers

First, optimizing logistics and distribution channels:

Businesses should focus on reducing carbon emissions from transportation activities by optimizing routes and vehicle loads. Using fuel-efficient vehicles, electric vehicles, or alternative energy sources will help minimize environmental impact. Additionally, businesses should leverage logistics management technologies to improve inventory control and **streamline transportation**, reducing both costs and delivery times while maintaining high-quality service for customers.

Second, developing environmentally friendly distribution strategies:

Companies should locate distribution hubs in environmentally safe areas that minimize pollution and are closer to consumers, reducing transportation distances. This approach enhances the sustainability of the supply chain and improves competitive advantages, as customers increasingly prioritize environmentally conscious businesses.

Third, expanding online sales channels:

To reduce costs and minimize emissions from customer travel, businesses should invest in e-commerce platforms. Websites or mobile apps that allow customers to order products

online and receive home delivery can reduce the need for physical store visits. This strategy not only expands market reach but also aligns with environmental sustainability goals.

Fourth, transitioning physical stores into sustainable stores:

For businesses with brick-and-mortar stores, adopting eco-friendly practices such as using renewable energy sources, energy-efficient designs, and waste management systems is essential. Stores can minimize the use of polluting materials and replace them with sustainable alternatives. These efforts not only promote environmental responsibility but also strengthen the green brand image in consumers' minds.

Fifth, ensuring the availability of green products:

To encourage green consumption, businesses must ensure that green products are widely available **and** easily accessible in the market. Distribution networks should be expanded to position green products more prominently, rather than limiting them to niche markets. This improves convenience for consumers, making sustainable choices more appealing and encouraging eco-friendly purchasing behavior.

Sixth, adhering to environmental standards in distribution:

A green place strategy requires businesses to strictly comply with environmental regulations and standards. To achieve this, companies should adopt eco-friendly transportation methods and sustainable distribution processes. Measures include: Using low-emission transportation, Implementing waste management systems, Maintaining clean and sustainable supply chain operations at all stages.

Seventh, promoting communication about sustainability efforts in location strategies:

Businesses should emphasize their green efforts in marketing campaigns **to** build consumer trust. Sustainable distribution and green location strategies are not only cost-saving measures but also contribute to long-term environmental benefits, increasing customer loyalty. Marketing messages should highlight **the** eco-friendliness of distribution channels and the advantages of choosing green products, reinforcing consumer commitment to sustainability.

7.3. Strengthening Green Promotion to Foster Green Consumption Intention Among Young Vietnamese Consumers

First, organizing interactive green events

The research team suggests that businesses host interactive events, such as trade-in programs where consumers exchange old products for new eco-friendly ones, or campaigns to reduce plastic waste. Collaborating with environmental organizations **and** influential KOLs in the sustainability sector is also an effective way to spread the green message. By utilizing social

media platforms, businesses can share content about their green initiatives, product stories, and eco-friendly lifestyle tips, strengthening engagement with young consumers and promoting sustainable consumption awareness.

Second, enhancing brand image through green initiatives

Green promotion efforts should also focus on improving a brand's environmental responsibility image. Companies can launch initiatives such as city-wide waste cleanups or plastic bottle collection campaigns, where consumers exchange plastic waste for product experiences. Marketing campaigns should be well-planned and transparent to ensure consumers find them trustworthy. Clear communication about eco-friendly benefits and proper product usage is essential in persuading customers to make sustainable choices.

Third, ensuring transparency in environmental messaging

Transparency in green marketing is crucial for building consumer trust. Companies should ensure that environmental benefits of their products are clearly, understandably, and verifiably communicated. This helps reassure consumers and reduce skepticism about greenwashing. Businesses should also provide eco-certifications for their products and ensure that marketing claims are accurate. To maximize the impact of green promotion strategies, companies should utilize a mix of advertising, public relations, promotions, direct marketing, and engagement programs.

Fourth, encouraging consumer participation in environmental activities

Businesses can involve consumers in sustainability initiatives such as waste collection, recycling, or environmental volunteer campaigns. Organizing "**Green Days**" with activities like beach clean-ups or tree planting in local communities and inviting consumers to participate can foster a shared commitment to sustainability.

Fifth, listening to customer feedback on environmental issues

Businesses should actively collect consumer feedback on their sustainability efforts to refine marketing strategies. Conducting surveys or online forums allows customers to share their opinions on green initiatives. This insight can help develop more eco-friendly products and services, aligning with customer expectations.

7.4. Strengthening Green Pricing Strategies to Foster Green Consumption Intention Among Young Vietnamese Consumers

Price sensitivity is a significant factor for young consumers; therefore, businesses must set competitive prices for green products to enhance their market appeal. This presents a challenge, as green products typically have higher production costs than conventional products.

First, developing strategic green pricing and marketing plans

To establish effective pricing, businesses must implement well-defined strategies that align with consumers' purchasing power. Pricing should be structured to ensure green products remain affordable while maintaining profitability.

Second, using strong marketing communication to highlight product value

Effective marketing should educate consumers about the importance of green products, emphasizing aspects such as functionality, design, and performance, while reinforcing their environmental benefits. If this step is executed well, consumers will be more willing to pay a premium for green products.

Third, implementing promotional campaigns to enhance consumer experience

Businesses should launch introductory promotions to allow consumers to experience green products before committing to full-price purchases. Effective promotional strategies include: Gift-with-purchase programs, Buy-one-get-one promotions, Discounts for first-time users, Loyalty rewards for repeat customers

Additionally, businesses should promote green pricing strategies during major environmental events, such as World Environment Day and Earth Day, to enhance visibility and encourage eco-conscious purchasing.

Fourth, building long-term customer relationships

Beyond offering perceived value, green products must maintain authenticity and transparency to build customer loyalty. Businesses should introduce loyalty programs and reward systems for consumers who consistently choose green products. Organizing workshops, discussion panels, and experience-sharing sessions on social media and community events can further strengthen consumer engagement.

Finally, adopting flexible pricing strategies based on consumer segments

Businesses should consider flexible pricing policies tailored to different consumer groups and market conditions. For example, offering lower-priced green products to low-income consumers or regions with less established sustainable consumption habits can increase accessibility and adoption of eco-friendly products.

7.5. Directions for Future Research

Although this study has presented several theories and solutions, the contributions remain **incomplete**, and certain **limitations** still exist.

First, the lack of focus on a specific green product

This research explores the impact of green marketing on green consumption intention without focusing on any specific green product. Future studies could narrow their scope by selecting a specific product category to uncover more precise insights.

Second, expanding the research sample beyond young consumers in Hanoi

Due to resource limitations, this study's survey participants were restricted to young consumers in Hanoi. Future research could expand the scope to include: Young consumers in Northern Vietnam, A wider age range, Individuals from various professions
Such diversification would enhance the comprehensiveness of the findings.

Third, improving sampling methods for higher representativeness

This study used random sampling and non-probability sampling methods. While random sampling helps mitigate the low representativeness issue of non-probability sampling, uncontrollable external factors may still affect sample representation. Future research should identify and implement more representative sampling methods **to enhance the** generalizability of the findings.

Fourth, expanding the model to include additional influencing factors

This study identifies four green marketing factors that influence green consumption intention. However, in reality, more than five factors may be needed to accurately measure green consumption intention. Future studies could: Incorporate additional influencing factors into the model; Examine their impact on other areas beyond green consumption intention
This would provide deeper insights into the broader effects of green marketing strategies.

References

1. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
2. Chan, R. Y. K. (2001). Determinants of Chinese consumers' green purchase behavior. *Psychology & Marketing*, 18(4), 389-413.
3. Chen, Y. S. (2010). The drivers of green brand equity. *Journal of Business Ethics*.
4. Davari, A., & Strutton, D. (2014). Marketing green products: The role of green brand equity and green marketing strategy. *Journal of Strategic Marketing*, 22(6), 563-586.
5. Fan, X., & Zeng, X. (2011). Green pricing strategies in a sustainable supply chain. *Journal of Cleaner Production*.
6. IPCC. (2021). *Sixth Assessment Report*.
7. Nielsen IQ. (2023). *Insights on Sustainable Consumption in Vietnam*.
8. Ottman, J. A. (1993). *Green marketing: Challenges and opportunities for the new marketing age*. NTC Business Books.

9. Peattie, K. (1992). *Green marketing*. London: Pitman Publishing.
10. Pujari, D. (2003). Green marketing initiatives: A case study approach. *Marketing Intelligence & Planning*.
11. Rahbar, E., & Abdul Wahid, N. (2011). Investigation of green marketing tools' effect on consumers' purchase behavior. *Business Strategy Series*, 12(2), 73-83.
12. Shil, N. C. (2012). Green marketing and sustainable development. *International Journal of Management and Marketing Research*.
13. Tanner, C., & Kast, S. W. (2003). Promoting sustainable consumption: Determinants of green purchases by Swiss consumers. *Psychology & Marketing*, 20(10), 883–902.
14. Targeting consumers who are willing to pay more for environmentally friendly products. (2001). *Journal of Consumer Marketing*, 18(6), 503–520.
15. Tiwari, R., Kalbar, P. P., & Karmakar, S. (2011). Green product marketing: A sustainable approach. *International Journal of Business Insights & Transformation*, 4(3), 50-57.
16. UNEP. (2021). *World Water Quality Report*.
17. Yazdanifard, R., & Mahmoud, T. O. (2018). Green marketing: A study of consumers' perspective. *International Journal of Business and Social Science*.

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