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Article

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YOUTHS' WORD-OF-MOUTH IN A DEVELOPING COUNTRY: ROLES OF GREEN PROMOTION AND GREEN BRAND LOYALTY

Thanh Hai PHAN¹, Ngoc Diep NGUYEN^{2✉}, Hai Giang HA², Mai Trang LE³, Phuong Anh VU⁴,
Hai Anh DOAN⁵

¹*School of Business and Economics, Duy Tan University, Danang, Vietnam*

²*Institute of Theoretical and Applied Research, School of Business and Economics, Duy Tan University, Danang, Vietnam*

³*Department of Economics, Thuongmai University, Hanoi, Vietnam*

⁴*Faculty of Marketing, Thuongmai University, Hanoi, Vietnam*

⁵*School of Economics and Management, Hanoi University of Science and Technology, Hanoi, Vietnam*

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Abstract. *Purpose* – This paper investigates the mediating role of green brand loyalty between green brand image and word-of-mouth (WoM) and the moderating role of green promotion and brand social responsibility among Vietnamese youth.

Research methodology – Using an online questionnaire from 1st October 2022 to 31st December 2022, 740 valid responses were collected.

Findings – The study reveals that green brand loyalty mediates the relationship between brand trust and WoM. Additionally, green promotion significantly moderates the relationship between brand trust and green brand loyalty. The study concludes that green promotion is vital in influencing consumers' trust in the brand, subsequently increasing their loyalty.

Research limitations – This study has not categorized the groups of environmentally friendly products used by young Vietnamese to see if there is a difference.

Practical implications – These results provide significant implications for brand managers to enhance the effectiveness of WoM.

Originality/Value – Green promotion is an effective strategy for brands to regain consumers' loyalty and maintain a close relationship between consumers and green brands. Additionally, green brand loyalty emphasizes the significance of green promotion for developing green companies and can serve as a conduit between customers and brands.

Keywords: sustainable development, green attitude, green brand loyalty, green consumption, green marketing.

JEL Classification: M31, M37.

✉Corresponding author. E-mail: nguyenngocdiep7@duytan.edu.vn

1. Introduction

Word-of-mouth (WoM) is a crucial aspect of consumer behavior that has been extensively studied in recent years (Daugherty & Hoffman, 2014). Among youth worldwide, WoM is a significant driver of purchasing decisions, with young people relying heavily on the recommendations of their peers and social networks to make informed choices (Choi, 2015). In Vietnam, the importance of WoM among youth is also well-established, with a growing emphasis on social media as a platform for sharing and disseminating information (Nguyen & My To, 2022).

Sustainable Development Goal 12 (SDG 12) focused on responsible consumption and production (United Nations, n.d.). In Vietnam, there have been some efforts toward implementing

SDG 12, but there are also significant challenges. Vietnam has made progress in reducing poverty and improving economic growth over the past few decades (Nguyen et al., 2021). However, this development has come at a cost to the environment, with increased industrialization, deforestation, and pollution (Hansen, 2016; World Bank, 2022). The Vietnamese government has recognized the need for sustainable development and has taken some steps toward this goal. Moreover, businesses and consumers need to be more aware of and educated about sustainable consumption and production practices (Le Van et al., 2019). It is evident that young people can significantly contribute to sustainable development (Ekka et al., 2022).

Green products, ranging from organic foods to hybrid cars, are gaining traction globally due to rising environmental concerns. In Vietnam, especially among younger consumers, interest in these products is growing. A 2019 Nielsen survey revealed that 80% of Vietnamese consumers are willing to pay more for eco-friendly items (Mai & Poddar, 2021).

WoM is also essential in adopting green products since WoM is often perceived as more trustworthy than advertising (Cheung & Thadani, 2012). It would be advantageous for companies to explore the popularity of word-of-mouth (WoM) among the youth and its influencing factors. When individuals discuss or recommend green products through WoM, they amplify awareness and shape public opinion about sustainability and eco-friendliness. Positive WoM can enhance a green product's reputation, credibility, and adoption rate among consumers. Conversely, negative WoM can deter potential consumers, highlighting the importance of maintaining quality and authenticity in green product offerings. Companies must understand and leverage the dynamics of WoM to effectively promote green products, fostering trust and encouraging eco-conscious consumption patterns.

Research papers worldwide have identified several factors influencing youth WoM. These include product quality (Mouloudj & Bouarar, 2021), emotional value, social value, conditional value, epistemic value (Aravindan et al., 2023), brand love (Niyomsart & Khamwon, 2015), social influence, and perceived value (Mouloudj & Bouarar, 2021). In Vietnam, studies have also found that customer satisfaction (Do & Pereira, 2023), festival attractiveness (Nghì et al., 2021), brand awareness, and brand attitude (Anh, 2022) play a significant effect on WoM. Regarding green products, some factors have been proven to have a significant impact on WoM, such as visual display and environmental ergonomics (Rini et al., 2020).

Despite the variety of research on this topic, there still needs to be a significant research gap in understanding the factors influencing WoM among youth using green products. Moreover, more research on this topic was conducted in developed countries than in emerging markets like Vietnam. In addition, cultural values and consumer behaviors may differ significantly between developing and developed countries (Henry, 1976). Besides, research on WoM to buy green products and regarding brand trust, image, loyalty, promotion, and social responsibility is under-explored (Zhang et al., 2018). Given that there is little research on the WoM, this paper aims to fill in the existing gap by determining the relationship between brand trust and WoM, as well as the moderating effect, or green brand loyalty and mediating impacts of green promotion and brand social responsibility, particularly among Vietnamese youth.

2. Literature review

2.1. Theoretical background

Researchers worldwide have often adopted various theories to explain pro-environmental behaviors, of which the most popular was the Theory of Planned Behavior (TPB) theory (Figure 1), (Ajzen, 1985; Bosnjak et al., 2020). Empirical studies have emphasized that the TPB model effectively predicts environmentally friendly behaviors, such as behavioral intention and actual behavior, and pro-environmental behavior (Hansmann et al., 2020; Yadav et al., 2019). One of the most essential determinants of TPB is individual behavioral intentions, which are the indications of one's efforts to perform the behavior (Ajzen, 1991). Notably, inherited from the Theory of Reasoned Action (TRA) model, TPB proposed that the consumer's behavioral intentions are influenced by attitudes, actual standards, subjective behavior, and subsequent behavior (Ajzen, 2005; Ajzen & Fishbein, 1980). For example, consumers with a positive attitude towards a brand will increase their purchase intention and repeat purchases of a certain brand. Conversely, customers with a negative attitude will increase the intention to switch to an alternative brand (Rambocas et al., 2018). Rambocas et al. (2018) also used this theory to study the relationship between brand equity and behavioral intention with four key dimensions: willingness to recommend, repeat purchase intention, willingness to pay higher prices, and loyalty.

Besides, to better explain the attitude-behavior relationship, the Attitude-Behavior-Context (ABC) theory was applied. ABC theory puts emphasis on the role of context and habit in explaining the attitude-behavior relationship – this is very significant in research related to the role of green marketing practice in pro-environmental behavior (Figure 2), (Guagnano

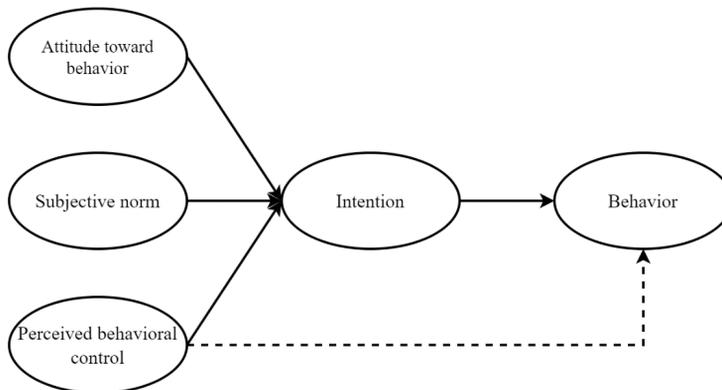


Figure 1. Theory of Planned Behavior (TPB) adapted from Ajzen (1985)



Figure 2. Attitude-Behavior-Context (ABC) theory adapted from Guagnano et al. (1995)

et al., 1995). This theory holds that attitudes or a person's sentiments and views about something, someone, or a circumstance, impact action. However, that influence is mitigated by the environment in which the activity takes place (Yadav et al., 2019). Researchers and practitioners can better understand and anticipate behavior and create efficient tactics to encourage positive behaviors by taking into consideration the situational context and other pertinent aspects.

In addition, to achieve the goal of the study to elucidate the link between green brands and green behavioral intention (WoM), several authors emphasized the need to understand brand antecedents. According to Barry (1987), the Hierarchy of effects model is classified into three categories: cognitive, affective, and behavioral responses (Lavidge & Steiner, 1961). This model has been further developed and widely applied in measuring the effectiveness of advertising, sponsors (Alexandris et al., 2012), consumer intention (Huang et al., 2023), and brand (Ahn & Back, 2018; Matthews et al., 2014). Oliver's theory was used to identify the antecedents of brand loyalty about customer loyalty (2014). Accordingly, the initial stage of loyalty is cognitive, which requires the presence of explicit knowledge about a brand's awareness, image, and perceived quality. The second loyalty phase is affective loyalty. Consumers' emotions, attitudes, and reactions to a product or brand, such as brand emotional value and brand satisfaction, are included in this level of loyalty. The final stage is conative loyalty, which involves behavioral intention and is described as a commitment to act in a certain way to achieve a goal. This means a commitment to a product/brand in this phase affects a consumer repurchase (Oliver, 2014).

Based on the TRA, this study combines the Hierarchy of Effects model and situational context factors such as green promotion and brand social responsibility as moderators to further clarify the study of green behavioral intentions in which WoM exists. The following sections will give the details of hypothetical relationships between these constructs.

2.2. Conceptual definitions and recommended hypothesis

2.2.1. Word-of-mouth and green brand loyalty

WoM is considered the most influential communication channel in the market (Allsop et al., 2007). Ko et al. (2013) identified WoM intention as the customer's willingness to recommend a product/service to others. Empirical evidence has proven that the more satisfied customers are, the more likely they will continue to purchase and recommend the product/service they used to others (Chen, 2013; Chen & Chang, 2013; Ho et al., 2019).

Brand loyalty is interpreted as a customer's deep commitment to repurchase a brand's preferred product/service in the future, regardless of influence (Oliver, 1999). The term "green brand" indicates the brand commits to providing environmentally friendly products (Kang & Hur, 2012). Therefore, this study recommends that green brand loyalty is a customer's commitment to continue using a preferred product/service from a green brand without being affected by other factors.

2.3. Green brand image and brand trust

In fierce competition, when manufacturers create products with the same uses and properties to satisfy consumers' needs, brand image plays an important role in distinguishing different firms' products because of the similarities in tangible factors (Mudambi et al., 1997). A corporation's "image" is described as a collection of perceptions about a business that are mirrored by the associations that customers have with it (Keller, 1993). Besides, brand image an ensemble of consumer views about a brand which is represented in brand associations (Cretu & Brodie, 2007; Keller, 1993). The term "green brand image" was developed by Chen to mean a collection of brand perceptions of consumers which are tied to environment-related commitments and concerns (Chen, 2010). This study presented "Green brand image" as a collection of customer impressions of a brand that are connected to environmental considerations, worries, and performances.

Brand loyalty is greatly influenced by brand trust, which is a crucial factor in customer behavior. Brand trust is the belief in a company's ability to consistently keep its promises and produce high-quality goods and services (Morgan & Hunt, 1994). The importance of brand trust in influencing consumer behavior has been underlined in numerous research (Fianto et al., 2014; Rather et al., 2021). Brand trust is more important when customers shop online since they cannot physically touch or test the products before making a purchase (Habibi et al., 2014). Consumers are often skeptical about the claims made by brands when a new green product appear. Therefore, brands demonstrating their commitment to sustainability and providing transparent information about their products' environmental impact are more likely to earn consumers' trust.

2.4. Green promotion and brand social responsibility

Green promotion plays a fundamental role in a green marketing strategy. It needs to satisfy one criteria among three ones: improving the relationship between products and the environment, and/or demonstrating a green lifestyle, and/or enhancing the brand image that is responsible for the environment (Davari & Strutton, 2014). The authors also demonstrated that the components of green marketing, including green promotion, positively influence.

Economic, legal, ethical, and philanthropic responsibility are the four parts of social responsibility (Carroll & Shabana, 2010). Under today's fierce competition, customers' perceptions and attitudes are easily changed, so they also easily change their consumption choices. Corporate social responsibility (CSR) is one of the effective marketing strategies organizations aim for strong and long-lasting relationships. More and more customers buy their products based on their observations and understanding of the organization's social responsibility, primarily environmental issues (Davies et al., 2012; Grimmer & Bingham, 2013).

2.5. Hypothesis development

Several studies have shown that a positive green brand image can enhance brand trust. For example, a study by Chuah et al. (2020) gave the evidence that customers who consider a brand as environmentally friendly are more likely to trust the brand. Similarly, a study by

Bashir et al. (2020) mentioned that a green brand image had positively effects brand trust and customer purchase intentions.

Research has consistently shown that a green brand image can positively enhance green brand loyalty. Several studies found that consumers who perceive a brand as environmentally friendly seem to develop a strong emotional attachment to the brand, hence, their green brand loyalty was increased (Bashir et al., 2020). Similarly, Chandra (2019) found a positive impact of green brand image on green brand loyalty among consumers. However, it is worthy of remarking that the impact of green brand image on green brand loyalty can be complicated. A study by Arham and Dwita (2021) illustrated that while a green brand image can enhance green brand loyalty, this effect is mediated by factors such as brand trust. Brand trust significantly affects green brand loyalty, which means that to get more loyal customers to the brand, the organization should build trust among its target customers.

H1a: Green brand image positively affects green brand loyalty.

H1b: Green brand image positively affects brand trust.

H2: Brand trust positively affects green brand loyalty.

Research has demonstrated a clear correlation between green brand loyalty and WoM behavior. For instance, research by Haryanto and Budiman (2016) discovered that brand loyalty to green electric products significantly improved customer WoM behavior. Previous research also discovered that customers are more inclined to engage in WoM behavior about a company if they believe it to be trustworthy and ethical (Hazel & Kang, 2018).

H3: Green brand loyalty positively affects word-of-mouth behavior.

Studies in Vietnam and abroad show that customers' brand loyalty to green products can benefit from green promotion (Hosseinzadeh & Branch, 2013; Nguyen-Viet, 2023). In addition, studies have revealed that various green advertising tactics can have various effects on green brand loyalty. According to a study by Amoako et al. (2021), business ethics, CSR, and green marketing significantly affect green brand loyalty. Similarly, Chung (2020) indicated that green marketing orientation might increase brand loyalty on the tourism industry. This study will consider if green promotion moderates the influence of brand trust on green brand loyalty.

Brand social responsibility (BSR) has been found to impact WoM among consumers positively. Several studies have examined this relationship and found consistent evidence supporting this claim (Chu & Chen, 2019; Vo et al., 2019). Furthermore, studies have also examined the mechanisms through which BSR impacts WoM, such as through authenticity and alternative attractiveness (Markovic et al., 2021). Overall, these studies suggest that BSR can be an effective tool for generating positive WoM among consumers. By engaging in socially responsible behaviors, brands can build trust, enhance brand quality perceptions, and create a sense of identification among consumers, all of which can contribute to positive WoM.

Therefore, the following hypotheses are recommended:

H4: Green promotion moderates the impact of brand trust on green brand loyalty.

H5: Brand social responsibility moderates the impact of green brand loyalty on word-of-mouth.

Based on previous research articles and hypotheses, theoretical framework is as follows (Figure 3).

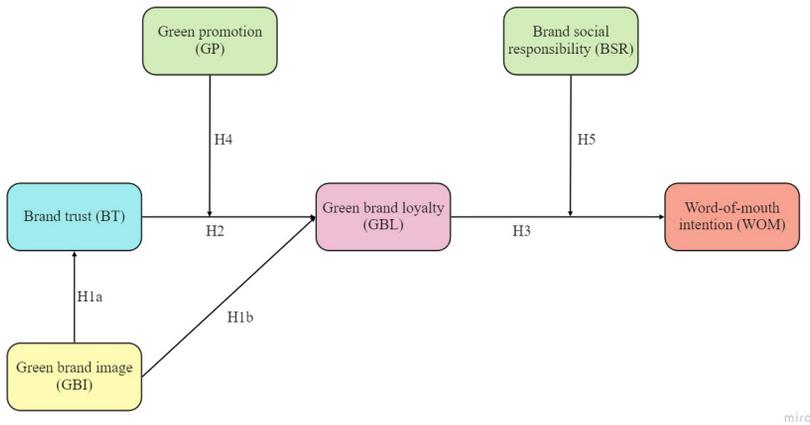


Figure 3. Theoretical framework

3. Methodology

3.1. Data collection

Initially, a Google form survey was designed. Hence, the survey was distributed online from 1 October 2022 to 31 December 2022 using different platforms, including the green community of undergraduate students on Facebook and Zalo's group chat.

Lecturers in different colleges and universities in North, Middle, and South Vietnam also spread the survey to their students during the teaching term.

The Google form link allowed one person to access only once to complete the survey to enhance the truthfulness of the result. All the information about the project and those who designed the form were stated from the beginning to help the participants better understand the purpose of the project and contact the authors if necessary. In the first stage, those who received the survey were asked if they wanted to participate in the survey or not. If they denied it, the survey would stop.

In contrast, they would continue filling the form with demographic questions, and the central section relates to green products' knowledge, attitudes, and behaviors. Those who participated in the survey must meet the following criteria: 1) Being a student of at least one college/university in Vietnam; 2) Living inside the boundary of Vietnam; 3) Agreeing the given informed consent; 4) Having heard about and used green products, and 5) Having the ability to understand all the content in the survey. Therefore, 762 observations were collected after spreading the survey. However, 22 invalid responses were excluded, and 740 were used for analysis (response rate equals 97.11%).

3.2. Measurement

The revised scales of green brand image (GBI), Brand trust (BT), Green promotion (GP), Green brand loyalty (GBL), Brand social responsibility (BSR), and Word-of-mouth (WoM) were used

to identify respondents' knowledge, attitudes, and behaviors towards green products and their brands (Chen, 2010; Davari & Strutton, 2014; Ko et al., 2013; Smith, 1997; Toukabri, 2015), (Appendix A). The Likert-5 scale (ranging from 1 to 5) was applied to measure all the scales in the study, with 1 referring to Totally not agree and 5 referring to Totally agree. All scales have Cronbach's Alpha value higher than 0.6, which shows their reliability.

To collect respondents' socio-economic status, related questions (including age, gender, living location, housing situation, student school year, family income, channels to access green products' information, type of using green products, subsidization, part-time job, and income of part-time job) were given as required sections in the survey (Appendix B).

3.3. Data analysis

STATA software version 17 (StataCorp LLC) was executed using 740 valid responses during data analysis process.

In order to identify statistical results, the mean and standard deviation (SD) of age were calculated, and the frequency and percentage of other variables were determined and classified. The Kaiser–Meyer–Olkin measure (KMO test) together with Bartlett's test were executed during the exploratory factor analysis (EFA) process. Factors with Eigenvalues greater than or equal to 1 were kept respecting the data results. Besides, to ensure the practical significance of EFA, factor loading >0.4 is considered necessary (Hair et al., 2010). The scale with Cronbach's Alpha greater than 0.6 was applied to ensure the scale's reliability. In the next step, confirmatory factor analysis (CFA) was performed, and reliability and validity between groups of variables should be considered through average variance extracted (AVE) and composite reliability (CR) if these indexes are more significant than 0.5 and 0.7, respectively.

Based on the theoretical model, structural equation modeling (SEM) was applied to test the hypothesis. The goodness of fit test indices was calculated to identify the fitness of sample data and the overall population.

To identify the mediating effects of green brand loyalty (GBL), multivariate regression was used to predict the value of WoM based on the independent variables. Six regression models were executed in order to distinguish the explanatory power of the mediator GBL in the impact of Brand trust (BT) and green brand image (GBI) on WoM, respectively. In Model 1, only the control variables were considered independent variables. In Model 2, Model 3, and Model 4, besides control variables, the main effect, including GBI, BT, and GBL, was added to the regression, respectively. Model 5 and Model 6 both had control variables and GBL in the regression, but in Model 5, there was a presence of GBI but not BT, which is the opposite in Model 6.

Hierarchical regression analysis was applied to identify the difference in the explanatory power of green promotion (GP) and brand social responsibility (BSR). Initially, only the main effects, including GBI, BT, and GBL, were put into regression. In the second stage, green promotion (GP) or/and brand social responsibility (BSR) were entered, forming Model 2, Model 3, and Model 5, respectively. In the final stage, interaction terms BTxGP or/and GBL x BSR were put into the regression to form Model 4 and Model 6.

In summary, our research stands apart from existing studies by employing Structural Equation Modeling (SEM) to evaluate and analyze the correlations between green brand image, brand trust, and brand loyalty. Additionally, we investigate the moderating impacts of green promotion on the relationship between brand trust and brand loyalty, and brand social responsibility on the relationship between brand loyalty and word-of-mouth (WoM). Furthermore, our study utilizes regression analysis to probe: 1) the mediating role of green brand loyalty in WoM, and 2) the moderating effects of green promotion and brand social responsibility. For each regression analysis, we constructed six distinct models, systematically incorporating variables to ascertain the optimal model tailored to the Vietnamese context.

3.4. Ethics approval

The authors followed all ethical concerns during the data gathering process. All participants provided written informed consent prior to enrolment in the study. The collected information was used for research purposes and was confidential.

The content of the survey and this study adapted the ethical standards given by the Institutional Review Board of the School of Business and Economics (No. D21-22 VIEN 4-1).

4. Results

The demographic characteristics of respondents are in Table 1. The average age of undergraduate students was 20.11 years old (standard deviation SD = 0.05). Majority of participants were females (63.11%) living in urban regions (86.49%). The proportion of undergraduates living in rented houses/campuses was about 2 times higher than those living in private houses (60.46% vs. 30.54%). Information channels for survey respondents to access information about green products were the highest: television, radio, speakers (100%), internet, and social networks (71.49%), followed by posters (44.32%), friends and Key Opinion Leaders (KOLs) (22.03%). Most undergraduates in the survey received a family allowance, with the most common subsidization amount ranging from 1 to 2.5 million VND per month (45.54%). However, up to 13.24% of them did not receive an allowance. 60.27% of students do not work part-time, much higher than 39.73% of students who worked part-time while studying at university.

Table 1. Demographic characteristics of participants (n = 740)

Demographic characteristics	Frequency (n = 740)	Percentage (%)
<i>Gender</i>		
Male	273	36.89
Female	467	63.11
<i>Current living location</i>		
Urban	640	86.49
Rural	100	13.51
<i>Current housing situation</i>		
Private house	226	30.54

End of Table 1

Demographic characteristics	Frequency (n = 740)	Percentage (%)
Rented house/campus	514	69.46
<i>Average family income per month (within 12 months)</i>		
Under 15 million VND	502	67.84
From 15 to 30 million VND	178	24.05
30 million VND and above	60	8.10
<i>Channels to access green products information</i>		
Television, radio, speakers	740	100.00
Internet, social media	529	71.49
Posters	328	44.32
Friends, KOL	163	22.03
Other sources	32	4.32
<i>Type of used green products</i>		
Detergents	740	100.00
Papers used for household (roll paper, napkins, etc.)	638	86.22
Products used for food contained, shopping (bags, straws, etc.)	487	65.81
Products used for energy, home electric devices	295	39.86
Stationery	176	23.78
Organic food, non-GMO food	102	13.78
Other products	9	1.22
<i>Student school year</i>		
1st year	333	45.00
2nd year	192	25.95
3rd year	153	20.68
4th year and above	62	8.38
<i>Subsidization amount per month</i>		
No subsidization	98	13.24
Under 1 million VND	80	10.81
From 1 to 2.5 million VND	337	45.54
From 2.5 to 5 million VND	186	25.14
Upper than 5 million VND	39	5.27
<i>Having a part-time job</i>		
No	446	60.27
Yes	294	39.73
<i>Salary of the part-time job (n = 294)</i>		
Under 2 million VND/month	187	63.61
Upper 2 million VND/month	107	36.39
Age	<i>Mean</i>	<i>SD</i>
	20.11	0.05

Table 2 shows the reliability of applied scales considering the values of factor loadings, Cronbach's Alpha, AVE, and CR. The results indicated that all scales meet the requirements while Cronbach's Alpha ranged from 0.889 to 0.960 (required value at least 0.6), AVE ranged from 0.765 to 0.858 (required value at least 0.5), and CR ranged from 0.890 to 0.960 (required value at least 0.7).

Table 2. Quality criteria and factor loadings

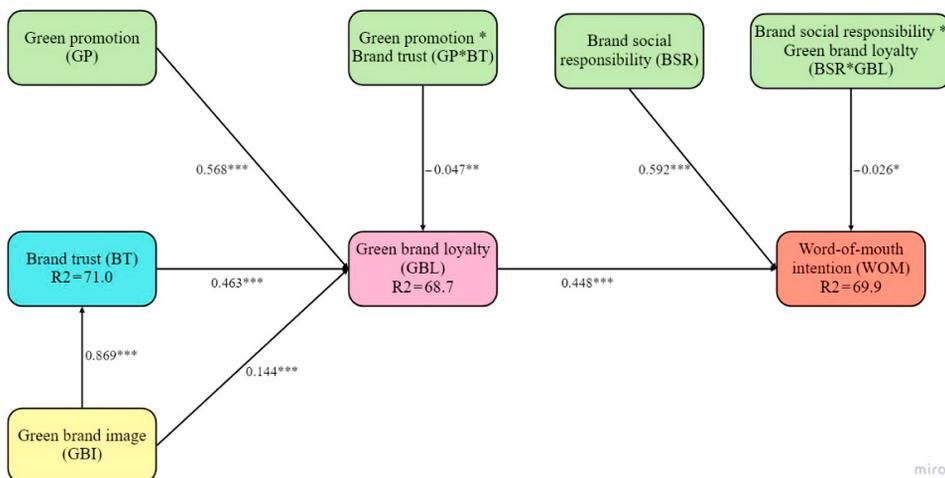
Construct	Items	Factor loadings	Cronbach's alpha	AVE	CR
Green brand image (GBI)	GBI1	0.6937	0.942	0.765	0.942
	GBI2	0.6944			
	GBI3	0.7346			
	GBI4	0.6992			
	GBI5...	0.6775			
Brand trust (BT)	BT1	0.6202	0.958	0.823	0.959
	BT2...	0.6532			
	BT3	0.6248			
	BT4	0.627			
	BT5	0.5898			
Green promotion (GP)	GP1	0.5747	0.897	0.747	0.899
	GP2	0.5931			
	GP3	0.5368			
Green brand loyalty (GBL)	GBL1	0.4022	0.889	0.729	0.890
	GBL2	0.4987			
	GBL3	0.5075			
Brand social responsibility (BSR)	BSR1	0.7622	0.960	0.858	0.960
	BSR2	0.788			
	BSR3	0.7951			
	BSR4	0.7688			
Word-of-mouth (WOM)	WOM1	0.5827	0.933	0.824	0.933
	WOM2	0.5576			
	WOM3	0.5584			
<i>KMO</i>		0.975			

Note: ... Reverse the scale when coding.

Table 3 and Figure 4 illustrate hypothesis testing results, showing that all hypotheses are accepted but hypothesis H5. The interaction between brand social responsibility and green brand loyalty did not significantly influence WoM. Hence, brand social responsibility did not moderate the effect of green brand loyalty on WoM intention. In contrast, green promotion moderated grand trust's effect on green brand loyalty, while the interaction between green promotion and brand trust slightly impacted GBL (Coef. = -0.047 ; $p < 0.05$). The result also indicated that Brand trust partially mediated the effect of green brand image on green brand loyalty. In contrast, all three effects of GBI \rightarrow GBL, GBI \rightarrow BT, and BT \rightarrow GBL were significant, with coefficients equalled to 0.144, 0.869, and 0.463, respectively.

Table 3. Hypotheses testing results

Pathway	Hypothesis	Coef.	S.E.	P-value	95% CI	Decision on hypothesis
GBI -> BT	H1a	0.869	0.020	0.000	(0.83; 0.91)	Accepted
GBI -> GBL	H1b	0.144	0.044	0.000	(0.07; 0.22)	Accepted
BT -> GBL	H2	0.463	0.070	0.000	(0.34; 0.59)	Accepted
GP -> GBL	H4	0.568	0.072	0.000	(0.44; 0.70)	Accepted
GP*BT -> GBL		-0.047	0.017	0.003	(-0.08; -0.02)	
GBL -> WOM	H3	0.448	0.067	0.000	(0.32; 0.58)	Accepted
BSR -> WOM	H5	0.594	0.051	0.000	(0.49; 0.70)	Rejected
BSM*GBL -> WOM		-0.026	0.015	0.088	(-0.06; 0.00)	



Note: *** Correlation is significant at the 0.001 level.
 ** Correlation is significant at the 0.05 level.
 * Correlation is significant at the 0.1 level.

Figure 4. Analysis results of the proposed model

Regression analysis was applied to evaluate the mediating role of green brand loyalty on WoM, and the results are illustrated in Table 4. In Model 1, only demographic variables were incorporated into the model to identify possible effects on WoM. The results indicated that living location and part-time job had no significant impacts on WoM, and the model's explanatory power was low (3.1%). In Models 2, 3, and 4, green brand image, brand trust, and green brand loyalty were incorporated as independent variables, and the explanatory power was enhanced to 49.4%, 54.5%, and 59.6%, respectively. However, when GBL was considered the mediating factor of the impact of green brand image on WoM in Model 5, the explanatory power increased to 63.0%. In comparison, this index was 64.2% in Model 6, when brand trust replaced green brand image.

Table 4. Regression analysis of mediation effects of green brand loyalty

Model (Independent)	Word-of-mouth					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Main effect</i>						
Green brand image		0.691***			0.277***	
Brand trust			0.710***			0.334***
Green brand loyalty				0.776***	0.567***	0.506***
<i>Control variables</i>						
Age	0.050**	0.029*	0.019	0.029*	0.026*	0.021
Gender	0.197*	0.142*	0.113	-0.013	0.021	0.020
Living location	-0.067	-0.137**	-0.126**	-0.099*	-0.119**	-0.116**
Housing situation	-0.128*	-0.063	-0.040	-0.097**	-0.079*	-0.066
Subsidization amount	0.100***	0.056***	0.034	0.048**	0.044**	0.035*
Doing part-time job	0.078	0.027	0.027	0.018	0.014	0.015
R ²	0.031	0.494	0.545	0.596	0.630	0.642

Note: *** Correlation is significant at the 0.001 level.

** Correlation is significant at the 0.05 level.

* Correlation is significant at the 0.1 level.

Table 5. Hierarchical regression analysis of moderation analysis for green promotion and brand social responsibility

Model (Independent)	Word of mouth					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Main effect</i>						
Green brand image	0.123***	0.085*	0.087**	0.085**	0.061	0.062
Brand trust	0.254***	0.218***	0.470***	0.088**	0.067	0.160**
Green brand loyalty	0.478***	0.425***	0.406***	0.261***	0.229***	0.228***
Green promotion		0.137***	0.419***		0.090**	0.190***
Brand social responsibility				0.456***	0.449***	0.437***
BT x GP			-0.077***			-0.027*
<i>Control variables</i>						
Age	0.022	0.021	0.016	0.017	0.016	0.015
Gender	0.027	0.031	0.017	0.030	0.032	0.027
Living location	-0.120**	-0.127**	-0.130**	-0.091*	-0.095**	-0.097**
Housing situation	-0.066	-0.066	-0.065	-0.044	-0.045	-0.045
Subsidization amount	0.036**	0.035*	0.031*	0.029*	0.029*	0.027*
Doing part-time job	0.014	0.008	0.014	0.007	0.003	0.006
R ²	0.646	0.651	0.661	0.730	0.732	0.733

Note: *** Correlation is significant at the 0.001 level.

** Correlation is significant at the 0.05 level.

* Correlation is significant at the 0.1 level.

Table 5 illustrates the results when hierarchical regression of green promotion and brand social responsibility was applied. There was a total of 6 models. In Model 1, together with the demographic variables, all three independent variables, including green brand image, brand trust, and green brand loyalty, significantly influenced WoM. Model 2 and model 3 showed green promotion's significant direct and moderating impact on green brand loyalty and the relationship between brand trust and green brand loyalty. In the following 3 models (Model 4, Model 5, and Model 6), the presence of brand social responsibility higher the explanatory power to 73.0%, 73.2%, and 73.3%, respectively. These results indicated that green promotion and brand social responsibility made the recommended model more adaptive.

5. Discussion

Given the importance of promoting green product consumption behavior by young consumers in emerging markets, this study has broadened and validated a model that combines key components of previous theories to explain WoM about green products based on brand perspectives. In addition, green brand loyalty is found to mediate the influence of green brand image on WoM among young people. Finally, the moderating role of green promotion and brand social responsibility is also investigated. The results reveal that green brand loyalty has a mediating role on the relationship between green brand trust and WoM intention. Moreover, green promotion was also found to moderate the influence of green brand trust on green brand loyalty in this study. However, although brand social responsibility positively affected WoM (0.592), a moderating role was not accepted in the study. These remarkable results may have academic and practical implications for marketing and brand management in promoting WoM toward green brands among young consumers.

Firstly, the findings show that green brand image positively impacts young people's green brand trust and green brand loyalty (coefficients of 0.869 and 0.144, respectively). The results consist with previous studies (Chen, 2010; Deheshti et al., 2016; Ibrahim et al., 2021; Mahothan et al., 2022). This shows that a strong brand image will create a higher emotional connection between customers and brands via trust as brand trust is related to psychological reactions, specifically the psychological endorsement of brand value to accept and believe in the interpretation of the brand image (Liao et al., 2009). In particular, a strong image will increase green brand loyalty, but the impact is weaker than brand trust. On the other hand, Lin et al. (2017b) showed that brand image is the antecedent with the strongest impact on brand loyalty.

Notably, the study demonstrates the mediating role of green brand loyalty in the relationship between brand image, green brand trust, and green WoM. With the R^2 results from regression models 5 and 6 (0.63 and 0.642, respectively), it can be said that green brand image and brand trust both have positive and indirect impacts on young people's WoM through green brand loyalty. The findings are coherent with previous studies, which indicated that the increase in brand image or trust will increase brand loyalty and, as a result, positively impact the WoM of consumers (Chen et al., 2018; Lee et al., 2010). This mediating effect can be explained by the fact that consumers who are very loyal to eco-friendly brands may have a stronger emotional attachment to the brand and its values (Handriana et al., 2021), which

encourages them to talk positively about the brand and its values thus quickly promoting positive sharing with others about the brand and its values.

Interestingly, green promotion is identified as the moderator in the impact of brand trust on brand loyalty. Discussing on promoting green, consumers carefully evaluate a brand's environmental claims, including scientific evidence, transparency in corporate sustainability practices, and overall brand image (Baniya et al., 2023). When a brand promotes its green initiatives, it can affect consumer trust in the brand, which can then increase their loyalty (Handriana et al., 2021). The impact of green promotion on brand loyalty may be more important for consumers who value environmental sustainability (Baniya et al., 2023).

There are several reasons for green promotion to have this regulatory effect. It signals the commitment of the brand to achieving sustainability and environmental responsibility (Solaiman et al., 2015). It can enhance consumers' perception of the brand's credibility, as they see the brand as truly committed to environmental issues. Green promotion can create an emotional link between brands and environmentally conscious consumers (Kaur et al., 2022). This emotional connection can lead to increased brand loyalty. However, this study results show a negative moderating impact of green promotion in the relationship between green brand trust and green brand loyalty.

Green promotion is also confirmed to have a direct positive impact on green brand loyalty (0.568). The increase in brand trust will directly increase green promotion (coefficient 0.463); but when it is regulated by green promotion, the effect of brand trust on green brand loyalty will decrease by a coefficient of -0.047 . This can be explained that in the process of building brand trust, there is always a perceived risk from advertising information about green consumption behaviors. Many previous studies have mentioned the concept of "greenwash" and its negative consequences for brand loyalty (Leckie et al., 2021), brand trust, and consumer behavioral intention when researching the role of green promotion, and green marketing (Chen & Chang, 2013; Lin et al., 2017a; Wu & Liu, 2022).

Green marketing will have a less pronounced impact than the beneficial brand trust effect as consumers' perception of "greenwash" increases (Wu & Liu, 2022). With the increasing environmental awareness of consumers and the rise in demand for green products, a larger number of companies want to mark their brands as green in competition versus their competitors. When organizations are not able to fulfill their environmental claims (Parguel et al., 2011), or when there is excessive communication about their environmental practices, greenwashing erodes consumer trust (Guerreiro & Pacheco, 2021), and thereby can reduce the impact on trust and loyalty.

Theoretically, this study has also extended the results of previous studies by examining the impact of brand loyalty on behavior (specifically, WoM) for green products among young people. The study also contributes to strengthening the TPB theory combined with ABC on green behavioral intentions from the perspective of green brands, the theory of Hierarchy of Effects in the research on word of mouth. The results consist of previous research which indicated a positive impact of brand equity antecedents such as brand image, and brand trust on promoting WoM. It is noteworthy that the mediating impact of brand loyalty in the mentioned relationship between the above variables has been demonstrated. It is also interesting to note the negative regulatory role of green promotion in the relationship between

brand trust and brand loyalty. This is also completely consistent with green consumption behavior because green consumers now have much exposure to green activities, media activities, and the ability to evaluate media messages carefully. At the same time, in the context of developing countries, it is not easy to build a green brand and advertise green elements of the business.

In addition, this study also suggests some important practical implications for marketers, green brand managers, and green product business organizations seeking to develop intervention strategies to promote WoM and green product purchasing behavior of young people. First, exploring the mediating role of green brand loyalty and the regulatory role of green promotion reveals the importance of their attributes in ensuring green brands' WOM intent. Therefore, marketers, managers and implementers of green branding need to strategically focus their efforts on building a green image towards green trust, consumer trust, and brand loyalty, which is very important for establishing a connection between consumers and brands (Eggers et al., 2013).

Second, promotion is considered as the most important and efficient solution. Green promotion focuses on providing and updating information related to the environment of the business, its perception, and commitments to the environment regularly, on a variety of platforms. It is essential for enterprises to monitor and control this information regularly and closely, respect the truth, avoid exaggeration, and provide compelling and transparent information about the green brand image or its product's performance capacity, thereby reducing the customers' perceived risks arising from green promotion to trust and brand loyalty. Customer relationship management should be developed and maintained. This is another effective approach to strengthening customer trust and loyalty. Brand owners might maintain consumers' relationships with green brands close and foster more brand engagements. Both are successful methods of attracting customers to strengthen this relationship. After-sales service is also a successful strategy to build loyalty with a brand as well as promote the WoM of young consumers to others through the incentives provided. In addition, it is important to enhance WoM opportunities among loyal customers by providing favorable conditions and resources for customers to engage in environmental, brand, and social discussions and to share on social media platforms to promote and maximize the advantages of green WoM.

This study provides researchers with some limitations and prospective research directions. Researchers can use this study's limitations and potential research paths. In a cross-sectional study, data were collected among Vietnamese customer via an online source. Future studies should examine brand trust and WoM utilizing a longitudinal design to reassess the generalizability of the concept. Besides, future research might clarify the types of brands, even though this study primarily addresses the mediating impact of green brand loyalty and the moderating influence of green promotion and brand social responsibility. In addition, the study only examines WoM and does not distinguish between WoM and eWoM (online). It would be beneficial for future research to identify the variances between WoM and eWoM and the differences in the level of closeness between individuals. Additionally, this research could investigate the possibility of using green branding for fraudulent purposes, which could be a topic for further exploration.

6. Conclusions

The study aimed to examine how brand trust affects WoM, using green brand loyalty as a mediator and green promotion and brand social responsibility as moderators. The findings show that a brand's perceived greenness significantly influences brand loyalty and brand trust. Additionally, brand loyalty to green brands is favorably correlated with brand trust. The study also discovered that brand loyalty for green products somewhat has a mediating role in the relationship between brand trust and intention to spread the word. Green promotion also moderates the impact of brand trust on green brand loyalty. The objective of green companies' WoM marketing is now included in the application of the brand loyalty theory as a result of this study. The study adds to the planned behavior theory and emphasizes the value of social responsibility and brand promotion in fostering the positive WoM of green brands. The research recommends using brand advertising as a middleman to boost consumer faith in the brand.

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APPENDIX

Appendix A. Indicators and items of questionnaire

Green brand image	GBI1	This brand is regarded as the best benchmark for environmental commitments
	GBI2	This brand is professional about environmental reputation
	GBI3	This brand is successful in environmental performance
	GBI4	This brand is well established in environmental concern
	GBI5 [†]	This brand is untrustworthy about environmental promises
Brand trust	BT1	This brand is very honest
	BT2 [†]	This brand is very unreliable
	BT3	This brand is responsible
	BT4	This brand is dependable
	BT5	This brand acts with good intentions
Green promotion	GP1	This brand elevates the relationship between its products and the environment
	GP2	This brand endorses green lifestyles
	GP3	This brand presents environmentally responsible corporate images
Green brand loyalty	GBL1	I recommend this brand to others because it is environmentally friendly
	GBL2	I will always use this brand because of its concern for the environment.
	GBL3	I am willing to pay more than any other brand to benefit from this brand's environmental commitment
Brand social responsibility	BSR1	This brand contributes to national development.
	BSR2	This brand contributes to development of community.
	BSR3	This brand endeavors to protect environments
	BSR4	This brand is on ethical business management.
Word-of-mouth	WOM1	I tell the other positive things about this brand.
	WOM2	I recommend this brand to someone looking for a board.
	WOM3	I encourage my friends to go to this brand.

Note: [†] Reverse the scale when coding.

Appendix B. Questionnaire

A. GENERAL INFORMATION	
1. What year were you born?
2. What is your gender?	Male
	Female
3. What is your current marital status?	Single/Living with partner but not married
	Living with spouse
	Divorced/separated/widowed
4. What area do you currently live in?	Urban
	Rural
5. What is your current housing situation?	Private house
	Rent house/Living in campus
	Living with parents/relatives
6. Estimated total monthly average income of your family in the past 12 months (Unit: million VND/month)	Under 15
	From 15 up to less than 30
	From 30 to less than 45
	From 45 and up
7. Through what channels have you heard about green products? (multiple choice)	Television, radio, loudspeakers
	Internet, social network
	Posters, newspapers, magazines, flyers
	Friends, relatives, celebrities
	Other channels (please specify):.....
8. Which of the following green products have you used? (multiple choice)	Detergents (dishwashing liquid, floor cleaner, etc.)
	Paper used for household (roll paper, napkins, etc)
	Products used for food contained, shopping (bags, straws, etc.)
	Stationery (ink, paper, etc)
	Products used for energy, home electric devices (air conditioners, refrigerators, products with energy-saving labels, etc.)
	Other (please specify):.....
	Never used
9. What school year are you in?
10. What is your average monthly allowance for the last 12 months? (From family or other sources, unit: million VND)	Nothing
	Under 1 million
	From 1 to less than 2.5
	From 2.5 to less than 5
11. Are you currently having a part-time job?	No
	Yes
12. What was your income from a part-time job in the most recent month?	Under 2 million VND
	From 2 million VND and up

Continue of Appendix B

B. MAIN SECTION	
Green brand image	
This brand is regarded as the best benchmark for environmental commitments	① ② ③ ④ ⑤
This brand is professional about environmental reputation	① ② ③ ④ ⑤
This brand is successful in environmental performance	① ② ③ ④ ⑤
This brand is well established in environmental concern	① ② ③ ④ ⑤
This brand is untrustworthy about environmental promises	① ② ③ ④ ⑤
Brand trust	
This brand is very honest	① ② ③ ④ ⑤
This brand is very unreliable	① ② ③ ④ ⑤
This brand is responsible	① ② ③ ④ ⑤
This brand is dependable	① ② ③ ④ ⑤
This brand acts with good intentions	① ② ③ ④ ⑤
Green promotion	
This brand elevates the relationship between its products and the environment	① ② ③ ④ ⑤
This brand endorses green lifestyles	① ② ③ ④ ⑤
This brand presents environmentally responsible corporate images	① ② ③ ④ ⑤
Green brand loyalty	
I recommend this brand to others because it is environmentally friendly	① ② ③ ④ ⑤
I will always use this brand because of its concern for the environment.	① ② ③ ④ ⑤
I am willing to pay more than any other brand to benefit from this brand's environmental commitment	① ② ③ ④ ⑤
Brand social responsibility	
This brand contributes to national development.	① ② ③ ④ ⑤
This brand contributes to development of community.	① ② ③ ④ ⑤
This brand endeavors to protect environments	① ② ③ ④ ⑤
This brand is on ethical business management.	① ② ③ ④ ⑤
Word-of-mouth intention	
I tell the other positive things about this brand.	① ② ③ ④ ⑤
I recommend this brand to someone looking for a board.	① ② ③ ④ ⑤
I encourage my friends to go to this brand.	① ② ③ ④ ⑤

Continue of Appendix B

A. GENERAL INFORMATION	
1. What year were you born?
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	Internet, social network
	Posters, newspapers, magazines, flyers
	Friends, relatives, celebrities
	Other channels (please specify):.....
	Never heard of/Not interested
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	Stationery (ink, paper, etc)
	Products used for energy, home electric devices (air conditioners, refrigerators, products with energy-saving labels, etc.)
	Other (please specify):.....
	Never used
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10. What is your average monthly allowance for the last 12 months? (<i>From family or other sources, unit: million VND</i>)	Nothing
	Under 1 million
	From 1 to less than 2.5
	From 2.5 to less than 5
	From 5 and up
11. Are you currently having a part-time job?	No
	Yes
12. What was your income from a part-time job in the most recent month?	Under 2 million VND
	From 2 million VND and up

End of Appendix B

B. MAIN SECTION	
Green brand image	
This brand is regarded as the best benchmark for environmental commitments	① ② ③ ④ ⑤
This brand is professional about environmental reputation	① ② ③ ④ ⑤
This brand is successful in environmental performance	① ② ③ ④ ⑤
This brand is well established in environmental concern	① ② ③ ④ ⑤
This brand is untrustworthy about environmental promises	① ② ③ ④ ⑤
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I will always use this brand because of its concern for the environment.	① ② ③ ④ ⑤
I am willing to pay more than any other brand to benefit from this brand's environmental commitment	① ② ③ ④ ⑤
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This brand contributes to national development.	① ② ③ ④ ⑤
This brand contributes to development of community.	① ② ③ ④ ⑤
This brand endeavors to protect environments	① ② ③ ④ ⑤
This brand is on ethical business management.	① ② ③ ④ ⑤
Word-of-mouth	
I tell the other positive things about this brand.	① ② ③ ④ ⑤
I recommend this brand to someone looking for a board.	① ② ③ ④ ⑤
I encourage my friends to go to this brand.	① ② ③ ④ ⑤