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THE EFFECT OF GREEN BRAND IMAGE ON GREEN BRAND EQUITY THROUGH THE GREEN CONSUMER SATISFACTION: THE CASE FOR ORGANIC FOOD PRODUCTS IN HO CHI MINH CITY

Mai Xuan Dao[1*], Trinh Minh Man[1], Ngo Thien Nhi[1], La Gia Phung[1], Le Yen Tam[1], Nguyen Phuong Thuy[1]

[1]University of Finance - Marketing, Vietnam

ARTICLE INFO	ABSTRACT
	This paper examines the effect of green brand image on green brand equity through green consumer satisfaction. Based on survey data collected from 323 consumers of organic food products in Ho Chi Minh City, this research adopts a mixed method, combining both qualitative and quantitative methods. Smart-PLS software was used to analyze the data. The results show a positive direct effect of green brand image on green brand equity, as well as a mediating effect of green consumer satisfaction on the relationship between green brand image and green brand equity for organic food products. Additionally, the results indicate that there are no significant differences in the relationship in the research model based on gender. However, there are differences based on occupation, and partial differences exist in all relationships based on age, residence location, and salary. Based on these results, several research implications are suggested for organic food businesses, state agencies, and consumers to enhance green brand equity for organic food products and encourage consumers to increase their consumption of organic food.

Corresponding author:

Email: xuandao@ufm.edu.vn

1. Introduction

Currently, many countries around the world consider environmental protection as one of the criteria to evaluate business products as well as their sustainable development. Consumers are willing to boycott businesses' products and services, if in the process of making products or services, they harm the environment. Therefore, building an environmental protection brand image enhances consumer satisfaction and creates brand equity for globally popular, eco-friendly products, thereby ensuring long-term success for businesses.

Green brand image and green brand equity are research topics that have attracted the attention of many researchers in recent years. These studies mainly study the relationship between independent factors (green brand image, environmental reputation, greenwashing, brand emotional attachment…) and dependent factors (consumer satisfaction, green brand equity, green trust, green scepticism, brand reputation, green brand loyalty...). Besides, there are a number of foreign studies on the mediating role of green consumer satisfaction in the relationship between green brand image and green brand equity (Górska-Warsewicz et al., 2021; Cuesta-Valino et al., 2021; Deniz & Onder, 2017). In Vietnam, Ha (2021) also researched this topic but the factor of brand equity is the first-order construct, while this factor is the second-order construct which is researched in many foreign studies (Cuesta-Valino et al., 2021; Lassar et al., 1995; Aaker, 1992). Therefore, the studies on the mediating role of green consumer satisfaction in the relationship between green brand image and green brand equity for organic food with the second-order construct of brand equity should be continued research in Vietnam. The second-order construct of brand equity is more suitable for this research because it shows the diversity aspect of the construct of brand equity which provides a more comprehensive and accurate view of brand equity for organic foods. In addition, it helps to supplement the study of brand equity as a second-order construct in Vietnam. Because of the above practical and theoretical reasons, this research was chosen to make. The objectives of this paper are to test the effect of green brand image on green brand equity through green consumer satisfaction for organic food products in Ho Chi Minh City and to test the differences among the relationships in the research model based on consumer characteristics. Based on the results, some research implications are suggested to enhance organic food enterprises' green brand equity and stimulate consumers to increase organic food product consumption.

The research contribution is to help organic food businesses have a more general overview of the interaction among green brand image, green consumer satisfaction, and green brand equity. Therefore, some research implications are suggested to state agencies and organic food businesses to improve the green brand equity of organic food businesses, as well as some implications for consumers to encourage them to promote the consumption of organic food to protect their health and stimulate businesses to sell green products. In addition, this research result will become one of the scientific reference bases to conduct further and expand related research in the future. In the next section, the rationale for the constructs and their hypothesized interrelationships are presented. Then a detailed description of the research method and measures are provided. After reporting the study results, the article will conclude with some research implications, its limitations, and future research needs.

2. Literature Review and Methodology

2.1. Literature Review

Green brand image

According to Keller (1993), brand image is defined as the perception of the brand reflected by the brand associations stored in

the consumer's memory. Image is linked to the attributes, both external and internal, which imply benefits for the consumer that turn into positive attitudes predisposing the consumer to purchase the product (Chen, 2010). Chen (2010) also stated that a green brand image represents consumers' perception of the level of environmental concern and commitment of companies or organizations. Therefore, the green brand image reflects how consumers perceive and feel about a brand's commitment to the environment.

The key role of brand image in creating brand equity is indicated in many studies (Bekk et al., 2016; Keller & Lehmann, 2006; Esch et al., 2006; Chaudhuri & Holbrook, 2001). Chaudhuri and Holbrook (2001) explore the connections between brand image with brand trust, brand affect, and brand loyalty playing a crucial role in the formation of trust and affection, which are key elements of brand equity. Keller and Lehmann (2006) explore the significance of brand image in building and maintaining brand equity, offering insights into the mechanisms that create strong brand value. Esch et al. (2006) highlight that brand image contributes to building long-term brand equity by creating strong brand associations that influence consumer loyalty and future purchase intentions. Bekk et al. (2016) also prove that brand image has a positive effect on green brand equity.

Green consumer satisfaction

According to Fornell (1992), consumer satisfaction is the attitude formed based on experiences after purchasing or using a product or service. Green consumer satisfaction is the result of consumer consumption and sustainable development needs. It is shaped by how well a product or service aligns with consumers' environmental and sustainability expectations (Chang & Fong, 2010; Chen, 2010). Therefore, green consumer satisfaction

is consumer satisfaction when a product or service meets environmental and sustainable development expectations.

The significance of green consumer satisfaction has been shown by several studies (Ha, 2020; Bekk et al., 2016; Kang & Hur, 2012). Kang and Hur (2012) show that green brand satisfaction has a positive effect on green brand equity via green trust, affect, and loyalty. Bekk et al. (2016) also demonstrate the direct and positive effect of green satisfaction on green brand equity. Ha (2020) indicates the direct effect of green satisfaction together with green trust and green brand image on green brand equity.

Green brand equity

Brand equity can be approached based on three perspectives: investor, manufacturer, or consumer. In particular, the customer's perspective is especially important which is used by many authors such as Keller (1993), Aaker (1992)... Based on the consumer perspective, Aaker (1992) proposed that brand equity consists of five factors, including brand loyalty, perceived quality, brand awareness, brand associations, and brand emotion.

Combining brand equity with the environmental context, green brand equity is described as an intangible brand asset associated with environmental initiatives to create additional value for the brand in terms of consumer preferences (Chen, 2010; Yoo et al., 2000). This study approaches green brand equity as a second-order construct based on Cuesta-Valino et al. (2021) which shows the variety of elements that constitute the construct of green brand equity. According to Boulding et al. (2013), the first-order construct of brand equity cannot fully reflect brand equity unless incorporated into a second-order construct. Chaudhuri and Holbrook (2001) also state that brand equity needs to be combined from multiple factors in a second-order construct to

be more precise. Green brand equity includes the following first-order constructs:

Green brand loyalty

Brand loyalty is a consumer's preference to buy a particular brand in a product category. It occurs when consumers perceive that the brand offers the right product features, images, or level of quality at the right price. This perception may translate into repeat purchases resulting in loyalty. Brand loyalty is therefore related to a customer's preference and attachment to a brand (Ishak & Abd Ghani, 2013). Green brand loyalty is customers' intention to stick with a brand when it comes to green goods in marketing campaigns, which prompts them to choose a certain green product above others and to keep buying it (Tamer et al., 2024).

Green perceived quality

Perceived quality is the overall subjective judgment of quality relative to the expectation of quality (Johnson et al. 1995). Green perceived quality is the customer's judgment about a brand's (or a product's) overall environmental excellence or superiority (Chen & Chang, 2013).

Green brand awareness

Brand awareness can be defined as "even at the recognition level, can provide the brand with a sense of the familiar and a signal of substance and commitment" (Aaker, 1992, p.30). For customers who have some environmental concerns, their purchasing decision is positively influenced by green products, price awareness, and brand image awareness.

Green brand association

A collection of brand-related beliefs, attitudes, ideas, knowledge, concepts, and methods make up the green brand association (Keller, 2009). According to Kotler and Gertner (2002), it encompasses all of the experiences, attitudes, perceptions, emotions, colors, pictures, and ideas that a consumer associates with a particular brand.

Green brand association is established based on delivering green product attributes related to the sustainability of the brand (Hartmann & Ibáñez, 2006). Keller (1998) argues that brand associations can be characterized by three aspects: strength, favorability, and uniqueness. Chen and Chang (2016) define 'green brand associations' as the extent to which consumers know about the green brands and how they feel about and evaluate the green brand.

Green brand emotion

Brand emotion includes love, trust, pride, awe, gratitude, and happiness (Batra et al., 2012). Green brand emotion means a product brand that can satisfy customers desires because it is related to customers' attitudes toward the environment and the lifestyle they desire (Yoo et al., 2000).

Factors affecting brand equity

Brand equity is regarded as a very important concept in business practice as well as in academic research because marketers can gain a competitive advantage through successful brands (Lassar et al., 1995). Therefore, there are many studies on factors that increase brand equity. Deniz and Onder (2017)'s research indicates that green brand image, green consumer satisfaction, and green trust have a direct impact on green brand equity. Besides, green brand image also has an indirect impact on green brand equity through green consumer satisfaction and green trust. In the research investigating green brand equity and its driving forces (Ha, 2020), the results show that green consumer satisfaction, green trust, and green brand image all have positive impacts on green brand equity. In particular, green brand image impacts green brand equity both directly and indirectly through green consumer satisfaction. Górska-Warsewicz et al. (2021)'s test results show that green consumer satisfaction and green brand image both have a positive impact on green brand equity. Specifically, green

brand image impacts green brand equity both directly and indirectly through green consumer satisfaction. In the research by Kurniawati and Setiawan (2021), the results show that emotional brand attachment has a positive effect on brand credibility, and emotional brand attachment positively impacts consumer satisfaction. However, emotional brand attachment has no impact on brand equity. Brand credibility positively impacts brand equity and consumer satisfaction positively impacts brand equity. Cuesta-Valino et al. (2021)'s results indicate that green consumer satisfaction and green brand image have a positive impact on green brand equity. In particular, green brand image impacts green brand equity both directly and indirectly through green consumer satisfaction. Green brand equity in this research is considered a second-order construct. Tran (2023) proves that environmental reputation is a critical factor in developing green brand equity. This is achieved by developing the green brand image, establishing green brand trust, and fostering green brand loyalty. Ho Thi Thao Nguyen et al. (2024) indicate that greenwashing has a positive impact on green skepticism but reduces green satisfaction and green trust. Furthermore, greenwashing has a negative impact on green brand equity through intermediate factors. In general, the above literature review shows that many factors affect brand equity both directly and indirectly. While green brand image and green customer satisfaction are both seen as crucial factors influencing green brand equity, the mediating role of green customer satisfaction in the relationship between green brand image and green brand equity requires further research in Vietnam. More studies are needed to understand whether green customer satisfaction acts as a mediator, transferring the positive impact of a strong green brand image to green brand equity or not.

2.2. Theoretical framework

Research by Cuesta-Valino et al. (2021), Górska-Warsewicz et al. (2021), Ha (2020), and Deniz and Onder (2017) has concluded that the results are significant, with a relatively high model fit among green brands, green consumer satisfaction, and green brand equity. The results, based on a survey of subjects in the green food and organic food industry, have similarities to this study. In particular, the research by Cuesta-Valino et al. (2021) not only explains the direct impact of green brand image on green brand equity and its indirect impact through the intermediary factor of green consumer satisfaction but also shows the second-order construct of green brand equity to highlight the diversity aspect of this construct. Therefore, the research model is established based on the research model of Cuesta-Valino et al. (2021) with the following relationships:

The effect of green brand image on green brand equity:

Green brand image is increasingly important for companies, especially in the context of growing environmental awareness among consumers and strict international regulations on environmental protection (Chen & Chang, 2016). For organic food, green brand image is one of the factors that builds trust and peace of mind for consumers and contributes to enhancing green brand equity. Faircloth et al. (2001) argue that brand equity can be strengthened by improving brand image. Empirical research by Ha (2020), Górska-Warsewicz et al. (2021), and Cuesta-Valino et al. (2021) shows the positive effect of green brand image on green brand equity. Therefore, the following hypothesis is tested:

Hypothesis H1: Green brand image has a positive effect on green brand equity.

The effect of green brand image on green consumer satisfaction

A green brand image is increasingly important for businesses, especially in the context of growing environmental awareness and strict international regulations on environmental protection. Consumers are increasingly inclined to choose green products that are beneficial to the environment. Brand image is a key determinant of customer satisfaction, and previous studies acknowledge that there is a positive relationship between brand image and consumer satisfaction (Martenson, 2007; Chang & Tu, 2005). Accordingly, the higher the green brand image, the greater the consumer satisfaction, which aligns with customers' environmental desires, sustainability expectations, and green needs. Therefore, the following hypothesis is tested:

Hypothesis H2: Green brand image has a positive effect on green consumer satisfaction.

The effect of green consumer satisfaction on green brand equity

Brand satisfaction has a positive influence on the strength and level of consumer preference for that brand. In short, when consumers' green satisfaction levels increase, they are more likely to recall the green brand image and enhance their repurchase behavior. As a result, consumers trust the brand even more, thereby increasing green brand equity. Cuesta-Valino et al. (2021), and Chen (2010) prove that consumer satisfaction positively affects brand equity. Therefore, the following hypothesis is tested:

Hypothesis H3: Green consumer satisfaction has a positive effect on green brand equity.

The effect of green brand image on green brand equity through a mediating construct of green customer satisfaction

As noted by Keller (1993), brand image is a critical determinant of consumer-based brand equity and for green brands, environmental associations are a key part of that image. Customers are expected to remember products that satisfy them more than other competing brands (Chen, 2010). A compelling green brand image can influence consumers' perceptions, making them more likely to feel satisfied with the brand's environmental practices (Ha, 2020). This positive perception, in turn, leads to greater green customer satisfaction, as consumers increasingly prioritize sustainability in their decision-making process. Pappu and Quester (2006) further assert that consumer satisfaction has a positive relationship with brand equity. From there, it can be seen that green brand image has an influence on green brand equity through green consumer satisfaction. This has been proven by Górska-Warsewicz et al. (2021), Cuesta-Valino et al. (2021), and Ha (2020) who emphasize the importance of a positive green image in fostering consumer satisfaction which in turn enhances green brand equity. Therefore, the following hypothesis is tested:

Hypothesis H4: Green brand image has a positive effect on green brand equity through green consumer satisfaction.

Differences in relationships in research models based on consumer characteristics:

Many researchers have addressed the importance of testing research results across consumer groups based on age, gender, occupation, culture, or other consumer characteristics (Lukaszewski & Stone, 2012; Ayman & Korabik, 2010). These test results help businesses identify their customer groups and provide specific recommendations and solutions applicable to each different consumer group. However, this type of test has not yet been conducted in many studies. Therefore, multigroup analysis is implemented in this research to explore whether there are any differences in the relationships in the research models based on consumer characteristics.

Previous evidence suggests that women are more environmentally conscious than men (Hirsh, 2010; Davidson & Freudenburg, 1996). According to Bekk et al. (2016), there are no sex differences in the model. Many other consumer characteristics (Lukaszewski & Stone, 2012; Ayman & Korabik, 2010) have not been tested in Bekk et al. (2016)'s research or in many other studies. Therefore, the following expectation is tested:

P: There are differences in the relationships in the research model based on consumer characteristics (gender, age, residence location, occupation, and salary)

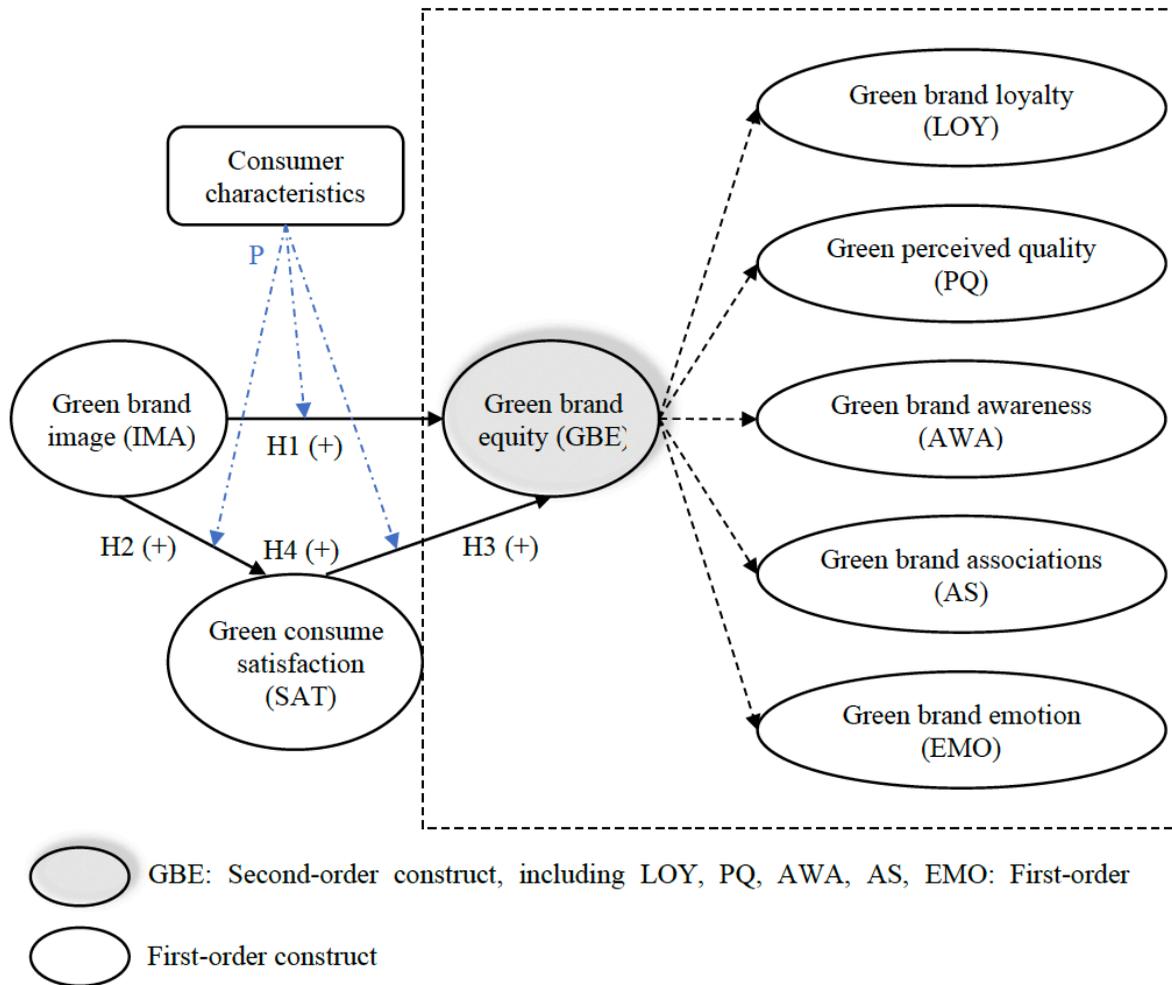The research model is suggested as follows:

Figure 1. Proposed research model

3. Methodology

Method

The study applied a mixed method of qualitative and quantitative methods. The qualitative method was conducted through in-depth interviews with 10 organic food consumers to adjust the scales. After this step, all scales were formed (*see Appendix 1 online*). Next, the main survey was implemented online. The second step of the quantitative method was undertaken to assess measurement model and structural model.

Sample and data collection

Survey samples are organic food consumers who are in Ho Chi Minh City. Because of time and resource limitations, the sample-taking method is convenient (*see Appendix 2 online*).

Statistical analysis

PLS-SEM was applied to test the hypotheses. PLS-SEM is suitable for this research model because the model research has a mediating construct that belongs to a complicated model (Henseler & et al., 2009).

Scales

This study applies scales from previous studies which were shown in the literature review. Some items below are selected from multiple sources for constructs to create a set of scales that fully reflect the different elements and characteristics of each construct while increasing the validity of the study by incorporating different perspectives that have been tested in previous research. In the qualitative step, all collected scales are adjusted to be suitable for the context in Vietnam. Green brand equity (GBE) is the second-order construct. Green brand image (IMA) and green consumer satisfaction are the first-order constructs. They are shown with some adjustments after the qualitative step in Appendix 1 (*see Appendix 1 online*).

4. Results and discussions

4.1. Evaluation of measurement model

In order to evaluate the measurement model, the following steps should be taken: *(1) evaluate the reliability; (2) evaluate the convergent validity; and (3) evaluate the discriminant validity*. The reliability is evaluated by Cronbach's alpha and Composite reliability (Hair et al., 2017). These criteria are acceptable if they are in the range of 0.6-0.9 (Nguyen Quang Anh & Cao Quoc Viet, 2018), and they are not more than 0.95 (Rossiter, 2002). According to Nguyen Dinh Tho (2013), a scale has good reliability when it varies in the range [0.75-0.95]. In order to evaluate the convergent validity, the outer loadings of the observed variables and the average variance extracted (AVE) values are considered. The general rule is that the outer loadings should be 0.7 or higher. AVE of 0.5 or higher indicates that the construct explains more than half of the variance (Hair et al., 2017). Henseler et al. (2015) (cited in Hair et al., 2017) propose assessing the Heterotrait-monotrait ratio (HTMT) of the correlations to evaluate the discriminant validity. A disattenuated correlation between two constructs close to 1 indicates a lack of discriminant validity.

Measurement model in this research is evaluated as follows:

First, the second-order construct of green brand equity (GBE) is estimated**.** Applying the repeated indicator approach, the reliability, convergent validity, and discriminant validity of all indicators are valid, except green brand associations (AS). AS does not meet the discriminant validity.

Second, the measurement model including the second-order construct of green brand equity (GBE) and the first-order constructs of green brand image (IMA) and green consumer satisfaction (SAT) are estimated.

The results show that all constructs meet reliability, convergent validity, and discriminant validity which are indicated in the table below:

Table 1. Measurement models result

Constructs	Variables	Internal Consistency Reliability		Convergent Validity		Discriminant Validity (HTMT ratio)
		Cronbach's Alpha	Composite Reliability	Loadings	AVE	
GBE	AWA	0.856	0.857	0.863	0.699	<1 (Yes)
	EMO			0.825		
	LOY			0.851		
	PQ			0.804		
IMA	IMA1	0.822	0.827	0.717	0.655	<1 (Yes)
	IMA2			0.824		
	IMA3			0.862		
	IMA4			0.826		
SAT	SAT1	0.741	0.748	0.810	0.563	<1 (Yes)
	SAT2			0.710		
	SAT3			0.710		
	SAT4			0.768		

4.2. Evaluation of structural model

Structural model is measured based on the following criteria (Hair et al., 2017): Collinearity assessment between constructs; Structural model path coefficients; Coefficient of determination (R^2 value); Effect size (f^2); Blindfolding and Predictive relevance (Q^2); Effect size (q^2).

Table 2. Results of structural model evaluation

Hypotheses	Relationships	VIF	Path Coefficients	Bootstrap	p-value	Results
H1 (+)	IMA -> GBE	1.728	0.365	[0.266; 0.461]	0.000	Accepted
H2 (+)	IMA -> SAT	1	0.649	[0.580; 0.705]	0.000	Accepted
H3 (+)	SAT -> GBE	1.728	0.448	[0.349; 0.540]	0.000	Accepted
H4 (+)	IMA->SAT-> GBE		0.291	[0.224; 0.361]	0.000	Accepted
R^2	$R^2_{GBE} = 0.545$; $R^2_{SAT} = 0.421$					
f^2	$f^2_{IMA \to GBE} = 0.169$; $f^2_{IMA \to SAT} = 0.728$; $f^2_{SAT \to GBE} = 0.255$					
Q^2	$Q^2_{GBE} = 0.434$; $Q^2_{SAT} = 0.466$					
q^2	$q^2_{SAT \to GBE} = 0.255$					

To analyze possible collinearity, we used values from the variance inflation factor (VIF). The results show that VIF values for the independent variables are below 5, indicating that, in line with Hair et al. (2017), the results obtained are not negatively affected by collinearity (Table 2).

Structural model path coefficients

The results show that all hypotheses are accepted. The result of H1: there is a positive effect of green brand image on green brand equity which is consistent with some studies (Ha, 2021; Cuesta-Valino et al., 2021). The result of H2: there is a positive effect of green

brand image on green consumer satisfaction which is consistent with some studies (Cuesta-Valino et al., 2021; Ha, 2020). The result of H3: there is a positive effect of green consumer satisfaction on green brand equity which is consistent with some studies (Cuesta-Valino et al., 2021; Deniz & Onder, 2017). The result of H4: there is a positive indirect effect of green brand image on green brand equity through green consumer satisfaction which is consistent with some studies (Ha, 2021; Cuesta-Valino et al., 2021).

Coefficient of determination (R² value)

The coefficient represents the exogenous latent variables' combined effects on the endogenous latent variable. That is the coefficient represents the amount of variance in the endogenous constructs explained by all of the exogenous constructs linked to it, where values of 0.5 are considered to be moderate and 0.25 are weak (Hair et al., 2017). In our model, the mediators' R^2 coefficient (GBE) is 0.545 so we can assess that this value is moderate and green brand image, and green consumer satisfaction accounted for 54.5 percent of the green brand equity (GBE) variations. In addition, regarding R^2 coefficient (SAT) is 0.421, showing that green brand image accounted for 42.1 percent of the green consumer satisfaction variations.

Effect size (f²)

In addition to evaluating the R^2 values of all endogenous constructs, the change in the R^2 value, when a specified exogenous construct is omitted from the model, can be used to evaluate whether the omitted construct has a substantive impact on the endogenous constructs or not. Guidelines for assessing f^2 are those values of 0.02, 0.15, and 0.35, respectively, representing small, medium, and large effects (Cohen, 1988) of the exogenous latent variable. Effect size values of less than 0.02 indicate that there is no effect. The result in Table 2 shows that

$f^2_{IMA \to GBE}$=0.169 which shows the medium effect; $f^2_{IMA \to SAT}$=0.728 which shows the large effect; $f^2_{SAT \to GBE}$=0.255 which shows nearly large effect.

Blindfolding and Predictive relevance (Q²)

In addition to evaluating the magnitude of R^2 values as a criterion of predictive accuracy, researchers should also examine Stone-Geisser's Q^2 value (Geisser, 1974). This measure is an indicator of the model's out-of-sample predictive power or predictive relevance. Q^2 values larger than 0 suggest that the model has predictive relevance for a certain endogenous construct. The result shows that the dependent constructs are higher than 0 for GBE and SAT which supports the predictive capacity of our model.

Effect size (q²)

The Q^2 values estimated by the blindfolding procedure represent a measure of how well the path model can predict the originally observed values. Similar to the f^2 effect size approach for assessing R^2 values, the relative impact of predictive relevance can be compared by means of the measure to the q^2 effect size. As a relative measure of predictive relevance, values of 0.02, 0.15, and 0.35 indicate that an exogenous construct has a small, medium, or large predictive relevance, respectively, for a certain endogenous construct. This figure must be computed manually because the Smart-PLS software does not provide them. To compute the q^2 value of a selected endogenous latent variable, we need the Q^2included and Q^2excluded values. The Q^2included result from the previous blindfolding estimation is available in Table 2.

$q^2_{SAT \to GBE}$=0.255 which show SAT and GBE have nearly large predictive relevance for green brand equity.

4.3. Multigroup analysis

Table 3. Results of multigroup analysis

Consumer characteristics		Results
Gender	Male vs Female	No difference exists
Age	Above 25->35 vs above 35->45; above 25->35 vs above 45; 16->25 vs above 35 ->45; 16 ->25 vs above 45; above 45 vs above 35->45	Difference exists
	Above 25 ->35 vs 16->25	No difference exists
Occupation	Students vs Housewives; Staff vs Housewives; Staff vs Others; Housewives vs Others; Students vs Others;	Difference exists
Residence location	Suburb vs Urban; Suburb vs Thu Duc city	Difference exists
	Urban vs Thu Duc city	No difference exists
Salary	Below 5 million vs 10-> below 20 million; 10-> below 20 million vs above 20 million; 5->below 10 million vs above 20 million; 5->below 10 million vs 10->below 20 million; below 5 million vs above 20 million	Difference exists
	Below 5 million vs 5->below 10 million	No difference exists

Table 3 shows that while there are no differences between males and females in all relationships, there are differences among occupations in all relationships in the research model. For the remaining consumer characteristics, there are differences in the relationships among factors in the majority of customer groups according to each characteristic and no differences exist in fewer customer groups.

In line with Bekk et al. (2016), this research does not reveal any gender-specific differences in the research model. It means that building strong green consumer satisfaction and green brand equity, seem to be equally important for female and male consumers. The differences in results among occupations in all relationships in the research model indicate that consumers in each occupation assess the importance of building strong green consumer satisfaction and green brand equity differently. Based on the remaining consumer characteristics, including age, residence location, and salary, some groups of consumers consider the importance of building green consumer satisfaction and green brand equity equally, but some other groups' assessments are completely different. It means that to some extent, the effects of age, residence location, and salary on organic food consumers' opinions about green consumer satisfaction and green brand equity are different.

5. Conclusion and implications

To meet the research objectives, a mixed method combining qualitative and quantitative approaches is applied. The results show that there is a positive direct effect of green brand image on green brand equity and that green consumer satisfaction mediates the relationship between green brand image and green brand equity for organic food products. This means that green brand equity increases not only directly through an increase in green brand image and green consumer satisfaction but also indirectly through an increase in green brand image, which leads to an increase in the mediating factor of green consumer satisfaction. In addition, the results also show that there are no differences in any of the relationships in the research model based on gender, that there are

differences based on occupation, and finally, that partial differences exist in all relationships in the research model based on age, residence location, and salary.

Based on the results, some research implications are suggested for organic food businesses, state agencies, and consumers as follows:

For organic food businesses

Firstly, organic food businesses must prioritize the development of a strong green brand image. To achieve this, businesses should focus on establishing a reputation for maintaining a sustainable and environmentally friendly natural environment. One effective approach is to actively share specific initiatives, policies, and tangible results related to emission reduction, renewable energy use, and waste management. Publishing in-depth articles and videos about the methods and solutions implemented by the brand can help communicate these efforts. Additionally, businesses should introduce their organic farms, vegetable gardens, and purely organic farming to showcase their commitment to sustainability. Equally important is reinforcing the internal policies and procedures that minimize the negative impacts on the environment. By ensuring that these measures are central to the organization's operations, businesses can demonstrate a genuine commitment to environmental protection. Highlighting the company's achievements in promoting sustainable practices and environmental protection can also help to build trust and strengthen the brand's credibility. Furthermore, organic food businesses should emphasize the direct link between consuming organic products and contributing to environmental preservation, creating a clear connection for consumers between their purchasing decisions and positive ecological impact.

Secondly, to enhance organic food consumer satisfaction, businesses in the sector should ensure they properly implement their commitments to environmental protection. By effectively carrying out these commitments, they can increase customer confidence in their products. Additionally, businesses should focus on advertising the benefits of organic food to foster customer pride in choosing such products. Educating consumers about the specific advantages of buying organic food, such as health benefits and environmental sustainability, is essential. To further improve satisfaction, organic food businesses should develop strategies that align with consumer needs and demands, ensuring that their offerings consistently meet customer expectations.

Thirdly, businesses should focus on enhancing the components of green brand equity. One key strategy for increasing green brand awareness is establishing and promoting green labels or trademarks that can distinguish their products in the marketplace. To cultivate green brand loyalty, businesses can implement customer engagement programs such as loyalty rewards, discounts, or special offers for regular customers. Building green brand emotion can be achieved by designing marketing campaigns and promotions that evoke positive emotions like happiness and joy. Furthermore, businesses should strengthen the perceived quality of their green brands by enhancing communication around the product's origin, quality, and any certifications they have obtained, thereby reinforcing trust in the brand.

Fourthly, organic food businesses should develop tailored strategies for different consumer groups based on their unique characteristics. For instance, businesses should leverage communication channels and social media platforms such as Facebook, TikTok, and Instagram to attract younger consumers, particularly those aged 16 to 30. For consumers

over the age of 30, product promotion campaigns, including TV advertisements and in-store promotions, can be effective in capturing their attention. In specific urban areas such as Ho Chi Minh City and Thu Duc City, enhancing the green brand image can significantly contribute to increasing green consumer satisfaction within these regions. Moreover, targeted research and analysis campaigns should be conducted for consumers with higher incomes (above 10 million VND per month) to design appropriate pricing, marketing strategies, and tailored services. This could include the development of exclusive programs, incentives, and premium service experiences that cater specifically to this demographic, focusing on personalized access, communication, and consumer care channels.

For the state agencies

State agencies need to develop support programs and preferential policies for organic food businesses, and enforce food safety and hygiene standards and laws strictly to protect legitimate businesses and consumer rights.

Additionally, it is essential to promote the production and consumption of green products to protect the environment and consumer health.

For organic food consumers

Organic food consumers should encourage consumption and advocate to their relatives and friends to consume organic food, stimulating more businesses to engage in the green products sector, thereby contributing to the protection of the environment and human health.

Limitations and future research

This research has some limitations related to sample size and sample-taking method.

Future research should increase the sample size and apply more precise sampling methods, such as stratified random sampling. Future research can also focus on other factors affecting green brand equity or examine other types of products, such as cosmetics, packaging, or services like transportation, tourism, and logistics,...

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