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Analysis of Green Brand Image on Green Brand Equity With Green Trust, Green Satisfaction, And Green Perceived Value As Mediation

M. A. Diva Vilaningrum Wadyatenti[1*], Fransisca Desiana Pranatasari[2]
[1]Universitas Sanata Dharma, Yogyakarta, Indonesia, mariaangeladiva@usd.ac.id
[2]Universitas Sanata Dharma, Yogyakarta, Indonesia, fr.desiana@usd.ac.id

[*]Corresponding Author: mariaangeladiva@usd.ac.id

Abstract: *People are starting to recognize that using green products daily is a crucial step in solving the global environmental crisis. The concept behind green marketing is to develop green brands and green products. This study investigates the influence of green brand image on green brand equity. In addition, it is also to examine the impact of green brand image on green brand equity mediated by green trust, green satisfaction, and green perceived value. It is a quantitative study. A self-administered survey was used to collect data. The sampling method uses non-probability sampling techniques. The sampling technique used is purposive sampling with 196 respondents. In this study, the Partial Least Square (PLS) data analysis technique was used. The outer model analysis was measured using validity tests, and the structural model is an analytical step to test a hypothesis. The results of this study show that Green Brand Image directly affects Green Brand Equity. Green Brand Image affects Green Brand Equity by partially mediating Green Trust, Green Satisfaction, and Green Perceived Value..*

Keywords: Green Brand Image, Green Brand Equity, Green Perceived Value, Green Satisfaction, Green Trust

INTRODUCTION

Concerns about the sustainability of the planet Earth's environment have grown recently. The degradation of the environment has been recognized as a humanitarian crisis. People are starting to recognize that using green products daily is a crucial step in solving the global environmental crisis (de Sio et al., 2022). Green products are being produced and marketed as part of global programs that support environmental preservation and consumer wellness (Dangaiso, 2024).

The concept behind green marketing is to develop green brands and green products (Mourad & Ahmed, 2012). Green products are those that are safe, have environmental friendliness, recyclable nature, lack impact on the environment or natural resources, and use eco-friendly packaging and components (Górska-Warsewicz et al., 2021). Green brands are communicators that provide information about the unique brand attributes of a product and the

benefits it provides to reduce environmental impact and represent the attributes of environmentally friendly products (Huang et al., 2014). The strength of a brand is reflected in the brand equity. The previously discussed green marketing methods, which focus on environmental and social factors, create strong brand equity and provide them a competitive edge over firms that don't use them (Górska-Warsewicz et al., 2021). "Brand equity" in the context of green brands is referred to as "green brand equity (GBE)." GBE is defined as a set of brand assets and liabilities on the one hand and a set of consumer perceptions affects, and behaviors related to environmental liabilities and green concerns associated with a brand, its name, and its symbol on the other (Górska-Warsewicz et al., 2021).

Commitment to the environment will result in a green competitive advantage, so the company strives to create a green image of goods and services. Brand image is another important aspect of branding (Kotler & Keller, 2016) included in the context of green brands. Green Brand Image (GBI) is A set of perceptions about a brand in the minds of consumers related to commitment to the environment and environmental issues (Chen, 2010). Consistent with this, numerous research studies suggested the direct impact of the green brand image on green brand equity ((Bekk et al., 2016; Chen, 2010; Delafrooz & Goli, 2015; Diva, 2020; Ha, 2021; Kang & Hur, 2012; Ng et al., 2014). The majority of research has focused on how brand equity is directly impacted by brand image. Therefore, research identifying the mediating mechanism that discusses the influence process from brand image to brand equity is lacking. Brand image and brand equity may be mediated by brand equity drivers; hence, improving these drivers is thought to have the potential to improve brand equity (Ansary & Hashim, 2018). Green brand equity drivers could serve as one of the mechanisms through which green brand image influences green brand equity, and their mediating role thus needs to be explained.

Green trust (GT) is defined as a willingness to rely on a product, service, or brand based on trust or expectations resulting from the credibility, goodness, and ability of a product that cares about the environment (Chen, 2010). Brand image is recognized as an essential first phase towards developing consumer trust in a company. It also helps people remember the name, logo, and benefits of consuming items associated with companies that are friendly to customers. Positive perceptions of green products will influence consumer perceptions in several ways, including the degree of consumer confidence in green products, which strengthens the green brand equity in consumers' memories (Jannah et al., 2024).

Satisfaction reflects a level of consumption that is pleasurable and can meet the needs and desires of consumers. Green satisfaction (GS) is related to the taste felt by consumers that is pleasant as a result of the quality of product or service performance in meeting consumer expectations, desires, and needs related to the environment (Chen, 2010). The green brand image could contribute towards the green satisfaction of the customers, which in turn could improve green brand equity. Previous research has shown that green brand image affects green brand equity mediated by green satisfaction (Khan et al., 2023).

Prior research indicates that consumers believe that purchasing green products is better than using conventional ones ((Esmaeili et al., 2017). Consequently, a brand's strong and favorable value, as perceived by consumers, has significance because of the positive effect that it produces (Malik, 2015). Green Perceived Value (GPV) is a consumer's overall appraisal of the one benefit of a product or service between what is received and what is given based on the consumer's environmental desires, sustainable expectations, and green needs' (Chen, 2013). A green brand that can create a good image will create positive perceived value in its consumers, which will have an impact on green brand equity.

Based on the above, our paper contributes to the existing literature in two ways. First, it examines the mediating role of green brand equity drivers through which green brand image may connect with consumer-based brand equity. Second, investigated the relationship between green brand image and green brand equity in the context of green products being

environmentally friendly storage containers. This study investigates the influence of green brand image on green brand equity. In addition, it is also to examine the influence of green brand image on green brand equity mediated by green trust, green satisfaction, and green perceived value.

METHOD

The sample unit used in this study is an individual. The sampling method uses *non-probability sampling techniques.* The sampling technique used is *purposive sampling* with the criteria of individuals who know green products and have purchased green products are environmentally friendly storage containers. The appropriate sample size is between 100 to 200. Following the analysis tool used in this study, namely *the structural equation model* (SEM), the determination of the number of representative samples is 5 to 10 times the number of parameters (*estimated parameters)* in the model (Hair, Jr, 2015). The sample in this study was 196 respondents. This sample size is considered to be representative of the population and meets the minimum criteria of statistical tools used in the study.

It is a quantitative study. A self-administered survey was used to collect study data, and participants completed each questionnaire online (Cooper & Schindler, 2014). The questionnaire is in the form of a statement measured on a Likert scale of 1 to 5. Research instruments are used to measure green brand equity, green brand image, green trust, green satisfaction, and green perceived value.

In this study, the Partial Least Square (PLS) data analysis technique was used. The outer model analysis was measured using validity tests (convergent validity and discriminatory validity) and reliability. The instrument test uses convergent validity and discriminant validity. The validity by looking at *Cross Loading*, Fornell-Lacker Criterion, and AVE. Valid or invalid can be seen through the correlation value obtained, it can be said to be valid if the correlation value is >0.70 and the AVE value is> 0.50 (Hair, Jr, 2015). Reliable if Cronbach's alpha value is >0.60 and the Composite reliability value is>0.70 (Hair, Jr, 2015). A structural model is an analytical step to test a model or test a hypothesis. Based on the significance value, the model is declared to have an effect if the significance is p<0.05 (Hair, Jr, 2015).

RESULTS AND DISCUSSION

RESULT

The study successfully collected data from 196 respondents by distributing online questionnaires; profiles of the respondents are presented in Table

Table 1. Profile Respondent

GENDER	Total	%
Man	67	34
Woman	129	66
AGE	Total	%
18-23 (30%	58	30
24-29	73	37
30-35	42	21
>35	23	12
MONTLY INCOME (IDR)	Total	%
Rp. 1.000.000-4.999.999	141	72
Rp. 5.000.000-9.999.999	41	21
>Rp. 10.000.000	14	0.7
LAST EDUCATION	Total	%
Highschool	51	26
Bachelor	140	71

Magister	3	0.2
Doctoral	2	0.1

Source: Primary Data (2024)

This study obtained data from 196 respondents, 34% male and 66% female, with the majority aged 24-29 years (37%), then 18-23 years old (30%), 30-25 years old (21%) and over 35 years old (12%). In terms of income, 72% earn Rp. 1,000,000-4,999,999/month, 21% earn Rp. 5,000,000-9,999,999/month and 0.7% earn >Rp. 10,000,000/month. Based on the last education, most graduates are bachelor's (71%), followed by high school (26%), master's (0.2%) and doctoral (0.1%).

Instrument Testing

Table 2. Summary Validity and Reliability

Variable	Ins	Factor Loading	Cronbach Alpha	Composite Reliability	AVE
Green Brand Equity	GBE1	0.892	0.907	0.908	0.781
	GBE2	0.887			
	GBE3	0.877			
	GBE4	0.879			
Green Brand Image	GBI1	0.878	0.929	0.929	0.779
	GBI2	0.911			
	GBI3	0.905			
	GBI4	0.886			
	GBI5	0.831			
Green Perceived Value	GPV1	0.828	0.902	0.903	0.773
	GPV2	0.890			
	GPV3	0.900			
	GPV4	0.897			
Green Satisfaction	GS1	0.896	0.914	0.916	0.795
	GS2	0.889			
	GS3	0.873			
	GS4	0.908			
Green Trust	GT1	0.873	0.930	0.931	0.806
	GT2	0.909			
	GT3	0.885			
	GT4	0.907			
	GT5	0.900			

Source : SmartPLS Output Results (2024)

Table 3. Discriminant Validity

	GBE	GBI	GPV	GS	GT
GBE	**0.884**				
GBI	0.840	**0.883**			
GPV	0.871	0.864	**0.879**		
GS	0.847	0.878	0.877	**0.892**	
GT	0.873	0.883	0.878	0.888	**0.898**

Source : SmartPLS Output Results (2024)

Based on Table 1. The outer loading value shows <0.80 and AVE >0.70, where the outer loading value is accepted if the outer loading value is >0.70 and AVE >0.50 (Hair, Jr, 2015). On the other hand, the results of the validity of discrimination from Cross Loading and Fornell-Lacker Criterion show that all indicators meet the validity requirements of discrimination. Table 2. shows that the AVE value obtained by each indicator has a different AVE value from other indicators, where the AVE value in GT is the largest (0.898) and the lowest, GPV is 0.879.

The instrument is said to be reliable or consistent if Cronbach's alpha value is >0.60 and the composite reliability value is >0.70 (Hair, Jr, 2015). Refer to Table 1. Cronbach's alpha value of >0.90 and composite reliability value >0.90, thus indicating that all indicators are reliable/consistent.

Table 4. R-square Result

	R-square	R-square adjusted
GBE	0.804	0.802
GBV	0.746	0.745
GS	0.806	0.805
GT	0.797	0.796

Source: SmartPLS Output Results (2024)

Table 4. shows the results of the R-square, where the influence of GBI, GT, GPV, and GS on GBE was 80.2%. GBI, GPV to GBE 74.5%. GBI, GS to GBE 80.5%. GBI, GT against GBE 79.6%. The rest is influenced by other variables outside the study. A good R-square value, if it reaches 0.67, is said to be moderate if the number shows 0.33 and is interpreted as weak if the number is only 0.19 (Ghozali, 2021). The above results show all the high influence due to >0.67.

Hypothesis Testing

To increase the reliability and robustness of the analysis, this study used Smart PLS 4 and bootstrapping using 5000 iterations (Hair, Jr, 2021). The research hypotheses were thoroughly tested by using bootstrapping to estimate the statistical distribution of model parameters. The reference level of confidence used in this study is 0.05 or 5%. Figure 1. and Table 5. summarizes the result of hypothesis testing.

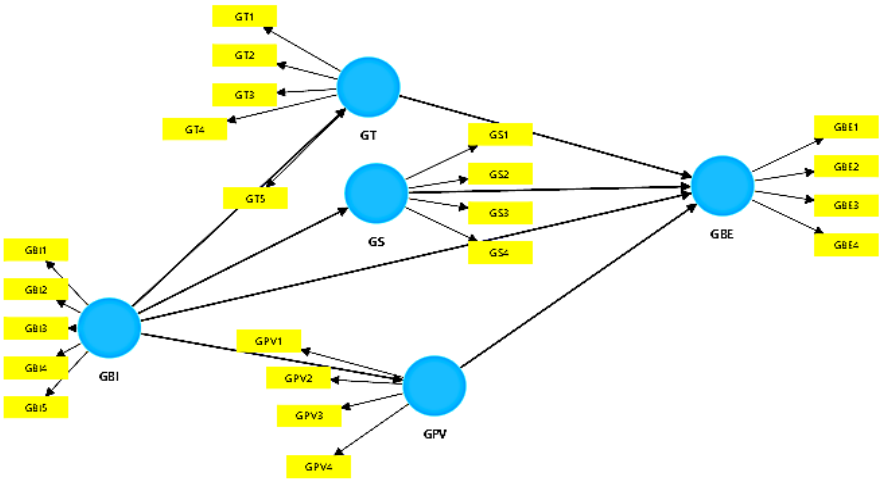

Figure 1. Output Result
Source : SmartPLS Output Results (2024)

Table 5. Direct and Indirect Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic	P Value
GBI → GPV	0.864	0.862	0.028	30.451	0.000
GBI → GS	0.898	0.896	0.021	43.341	0.000
GBI → GT	0.893	0.891	0.023	38.598	0.000
GPV → GBE	0.374	0.373	0.109	3.425	0.001

GPV → GBE	0.186	0.187	0.081	2.305	0.021
GPV → GBE	0.367	0.367	0.116	3.115	0.002
GBI → GBE	0.695	0.692	0.075	9.207	0.000
GBI → GPV → GBE	0.328	0.327	0.106	3.096	0.002
GBI → GS → GBE	0.167	0.168	0.073	2.288	0.022
GBI → GT → GBE	0.323	0.321	0.093	3.468	0.001

Source : SmartPLS Output Results (2024)

GBI → GBE is *accepted because* of the P-value <0.05, so GBI has a direct effect on GBE. GBI → GT → GBE is *accepted because* of the P-value <0.05, so GBI has a direct effect on GBE with GT as mediation. GBI → GT → GBE is *accepted because* of the P-value <0.05, so GBI has an effect on GBE mediated by GS. GBI → GPV → GBE is *accepted because* of the P-value <0.05, so GBI has an effect on GBE mediated by GPV. A summary of the hypothesis testing conducted in this study is presented in Table 6.

Table 6. Summary Hypothesis Testing.

H1	GBI → GBE	supported
H2	GBI → GPV → GBE	supported
H3	GBI → GS → GBE	supported
H4	GBI → GT → GBE	supported

Source: Primary Data (2024)

DISCUSSION

The results of the hypothesis test H1. Green Brand Image affects Green Grand Equity, showing a P-value of <0.05, so GBI → GBE is *accepted.* This shows that a Green Brand Image affects Green Grand Equity. The better the green brand equity, the higher the green brand equity. This is in line with previous research, which showed that green brand image has a positive influence on green brand equity (Bekk et al., 2016; Chen, 2010; Dangaiso, 2024; Diva, 2020; Ha, 2021; Khan et al., 2023; Ng et al., 2014).

Next results of the hypothesis test H2. Green Brand Image affects Green Brand Equity mediated by Green Trust, showing a P-value of <0.05, so GBI → GT→GBE is *accepted.* This shows that Green Brand Image has an effect on Green Grand Equity with Green Trust as a mediator (partial mediation). Creating a good green brand image, consumers will increasingly trust green brands so that they will form high green brand equity in the minds of consumers. These results are in line with the research Jannah et al. (2024), which finds the positive effect of green brand image on green brand equity-mediated green trust.

Moreover, the results of the hypothesis test H3. Green Brand Image affects Green Brand Equity mediated by Green Satisfaction, showing a P-value of <0.05, so GBI → GS →GBE is *accepted.* This shows the significant effect of green brand image on green brand equity-mediated green satisfaction (partial mediation). Green Brand Image yang semakin baik maka akan membentuk Green Satisfaction konsumen yang semakin tinggi sehingga Green Brand Equity konsumen akan semakin tinggi. Previous research also found that Green Brand Image has an effect on Green Brand Equity mediated by Green Satisfaction (Jannah et al., 2024; Khan et al., 2023).

Last, results of the hypothesis test H4. Green Brand Image affects Green Brand Equity mediated by Green Perceived Value showing a P-value of <0.05 so GBI → GPV →GBE is *accepted.* This means that Green Brand Image affects Green Brand Equity by partially mediated Green Perceived Value. Ketika perusahaan menciptakan green brand image yang baik maka konsumen akan merasakan Green Perceived Value yang semakin sesuai sehingga Green Brand Equity di benak konsumen akan semakin tinggi. Hal ini selaras dengan penelitian sebelumnya yang menujukkan bahwa Green Perceived Value memediasi pengaruh Green Brand Image terhadap Green Brand Equity (Esmaeili et al., 2017).

CONCLUSION

The findings show that Green Brand Equity (GBE) has been significantly affected by Green Brand Image (GBI). Furthermore, Green Perceived Value (GPV), Green Satisfaction (GS), and Green Trust (GT) all play a role in mediating this effect. Green Satisfaction, Green Trust, and Green Perceived Value are all increased by a strong Green Brand Image, and these factors add to Green Brand Equity. Green Brand Image is the key to creating green brand equity. On the other hand, building a good green brand image will influence the creation of high green trust, high green satisfaction, and green perceived value in the minds of consumers so that it will form a strong green brand equity in the long term. These findings are in line with previous research and highlight the importance of a consistent green brand image to building brand equity and gaining a competitive advantage.

Companies should concentrate on increasing their green brand image by constantly promoting sustainability activities through recyclable packaging and eco-friendly products to take advantage of these insights. Gaining the trust of customers is essential and can be accomplished through truthful communication regarding environmental effects and reputable green certifications. Additionally, it is crucial to raise consumer satisfaction by getting feedback regularly and making sure green products live up to sustainability and quality standards. By emphasizing the material and immaterial advantages of green products through focused marketing initiatives, businesses can also try to raise the perceived green value of their products and services. Last, use the insights from this research to design targeted campaigns that emphasize the benefits of trust, satisfaction, and value derived from green products.

This research only focuses on one type of product. Further research can be compared with other types of products so that more comprehensive results are obtained. In addition, further research can also explore other potential mediators (e.g., green innovation or environmental concern) to identify additional pathways for strengthening green brand equity.

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