International Journal of Management and Business Intelligence (IJBMI)
Vol. 4 No. 3, 2026: 585-604

The Effect of Green Marketing Mix on Sustainable Footwear Mediated by Brand Association

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A R T I C L E I N F O
Keywords: Green Marketing Mix, Green Product, Green Price, Green Place, Green Promotion, Brand Association, Sustainable Footwear

Received : 27, April
Revised : 28, May
Accepted: 30, June

A B S T R A C T
This study uses brand association to examine how the Green Marketing Mix included green product, green price, green place, and green promotion affects sustainable footwear. By combining these factors into one study model, this study adds to the existing literature. Data obtained from Google Form in the March 2025 - February 2026 period of 270 respondents with a minimum age of 18 years and living in Jakarta were analyzed quantitatively using PLS-SEM with SmartPLS. The results showed that green place has no influence on brand association, while green product, green price, and green promotion have an influence. Sustainable footwear is not directly influenced by green product. Green product, green place, and green promotion are significantly impacted indirectly by brand association. These facts support sustainable marketing methods.

DOI: https://doi.org/10.59890/ijmbi.v4i3.19
ISSN-E: 3025-5589
https://journalijmbi.my.id/index.php/ijmbi

INTRODUCTION

In the contemporary digital era, Indonesia's economic growth and lifestyle modernization have brought attention to environmental risks that the general public frequently ignores, such as waste from the fast fashion business. People's patterns of clothing consumption have been influenced by fast fashion, which is defined by low-cost apparel manufacture and quick trend fluctuations. Affordable costs and easy access have unseen but extremely worrying effects on the environment. (Rizqah, 2024).

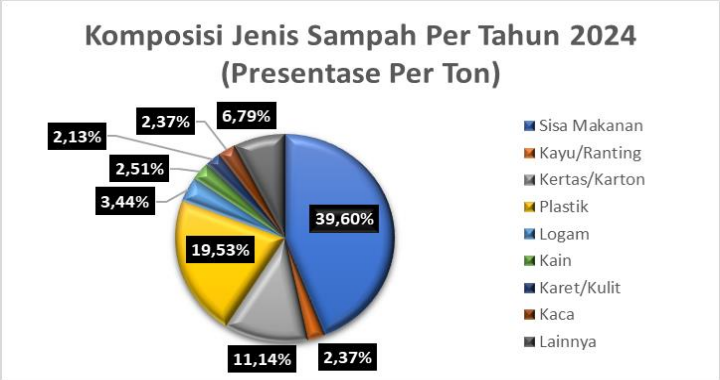

Figure 1. Waste Composition by 2024
Source: National Waste Management Information System (2024)

Textile waste makes up 2.51% of the total waste volume, according to data from the Sistem Informasi Pengelolaan Sampah Nasional (SIPSN), and this percentage is expected to rise further (Aslamatur Rizqiyah, 2023).

The fast fashion industry annually requires 92 million tons of textile waste, 1.7 billion tons of CO2 (almost 10% of the world's CO2 emissions), and 79 billion cubic meters of water (about 20% of the world's water consumption) (Centobelli et al., 2022). This environmental crisis corresponds with the Sustainable Development Goals (SDGs), especially point nine, which aims to promote inclusive and sustainable industrialization through innovation (Our World in Data team, 2023). In this context, sustainable footwear emerges as a concrete manifestation of sustainable innovation in the fashion industry (Thakker & Sun, 2023).

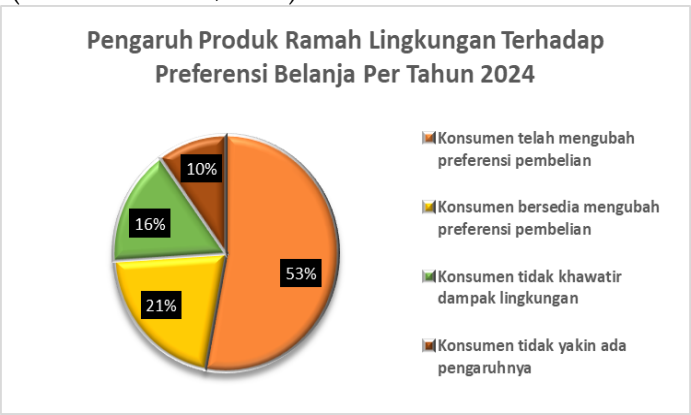

Figure 2. The Influence of Eco-Friendly Products on Consumer Shopping Preferences as of 2024
Source: Gusmartini (2024)

The increase in environmental consciousness is evidenced by the expansion of the green fashion market, anticipated to attain 6.1% through 2026 (Ridwan, 2022). Approximately 74% of buyers have either changed or are prepared to alter their shopping habits to account for the sustainability of the things they buy (Gusmartini,

2024). This behavioral shift has catalyzed the emergence of sustainable footwear as an innovation within the fashion business, emphasizing the utilization of eco-friendly materials, minimizing carbon footprints, and adopting circular economy concepts (Pantazi-Băjenaru et al., 2023). In order to boost customer acceptance of sustainable products, this phenomena has prompted businesses to adopt a Green Marketing Mix that includes green products, green prices, green places, and green promotions (Mahmoud, 2019).

One of the sustainable footwear industry players in Indonesia is Pijakbumi, which actively embraces sustainability by using eco-friendly materials and running the #ForBetterEarth and #SmallStepsMatter campaigns (Pijakbumi, 2025). Challenges persist in building strong brand perceptions and associations among consumers. This is evident in the varying levels of consumer engagement across digital platforms and the intense competition from other footwear brands offering similar products. Brand association is a crucial element in enhancing the connection between environmentally conscious marketing tactics and customer acceptance toward sustainable footwear (Aaker, 1991; Lane Keller, 2013).

Table 1. Price Comparison: Sustainable Footwear vs. Conventional Shoes

Category	Brand	Price Range (IDR)
Local Sustainable Footwear	Pijakbumi	599,000 – 2,799,000
Local Conventional Shoes	Ventela	180,000 – 400,000
International Sustainable Footwear	VEJA	2,000,000 – 4,000,000
International Conventional Shoes	Vans	500,000 – 2,000,000

Source: Processed data, 2026

Despite the growing interest in sustainable footwear, significant empirical challenges persist across the Green Marketing Mix. In terms of green price, a substantial price gap exists between sustainable and conventional footwear. Pijakbumi products are priced between IDR 599,000 and IDR 2,799,000, compared to conventional local brands such as Ventela at IDR 180,000–400,000. A similar disparity is observed at the international level, where VEJA ranges from IDR 2,000,000 to IDR 4,000,000 versus Vans at IDR 500,000–2,000,000.

Table 2. Instagram Followers Comparison: Eco-Footwear vs. Conventional Shoes

No.	Category	Brand	Instagram Followers
1	Local Sustainable Footwear	Pijakbumi	90,100
2	Local Conventional Shoes	Compass	1,100,000
3	International Sustainable Footwear	VEJA	1,100,000
4	International Conventional Shoes	Vans	15,600,000

Source: Processed data, 2025

Regarding green place, distribution of sustainable footwear remains highly limited, Pijakbumi operates only one physical store, located in Bandung. On digital platforms, the brand's Instagram following of 90,100 lags considerably behind conventional competitors such as Compass with 1.1 million followers. Website traffic data further reflects this challenge, with Pijakbumi's visitor numbers fluctuating

between 2016 and 2021 and consistently falling short of set targets (Hendriawan et al., 2022). These gaps in price positioning, physical distribution, and digital reach underscore the importance of examining how Green Marketing Mix, mediated by Brand Association, can drive consumer acceptance of sustainable footwear.

Prior research has yielded contradictory results concerning the impact associated with the Green Marketing Mix aspects on buyer opinions and behaviors. Jave-Chire et al. (2025) discovered that environmentally friendly products, eco-friendly promotions, and sustainable locations influence brand value, whereas the green pricing does not significantly impact it. Meanwhile, Liu and Kim (2025) discovered that green product, green price, and green promotion influence brand attitude, whereas green place does not significantly impact it. In addition, most studies continue to focus on purchase intention, purchase behavior, brand loyalty, and brand image, and employ mediating variables such as green knowledge, perceived sustainability, and competitive advantage (Murtiningsih, 2025; Mustofa & Maula, 2026; Novalensiago, 2025). Research integrating the Green Marketing Mix, Brand Association, and Sustainable Footwear within a single model remains relatively limited. This research contributes to the sustainable marketing literature by investigating the mediating role of Brand Association in the relationship between the Green Marketing Mix and Sustainable Footwear among consumers in Jakarta. The aim of this study is to assess both the direct and indirect effects of the Green Marketing Mix on Sustainable Footwear through Brand Association.

LITERATURE REVIEW

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB), proposed by Ajzen (1991), suggests that human behavior is shaped by intentions driven by three fundamental elements: one's personal attitude, social pressure from others, and the individual's sense of control over their own actions. Regarding sustainable footwear, this theory explains how consumers form intentions and make purchasing decisions for eco-friendly products based on their perceptions of a product's benefits, social influence, and accessibility. The brand associations and green marketing mix are regarded as factors capable of shaping consumer attitudes and behavior toward sustainable footwear.

Green Marketing Mix

The Green Marketing Mix is an advancement of the classic marketing mix that incorporates environmental sustainability into marketing tactics via: (1) Green Product; (2) Green Price; (3) Green Place; (4) Green Promotion (Kirgiz, 2016). This idea seeks to satisfy consumer demands while also reducing adverse environmental effects:

Green Product

Green Product is a product designed with environmental safety, consumer health, and sustainability in mind throughout its life cycle (Ottman, 2017; Peattie, 2001). In this study, Green Product is measured by the following indicators: the product does not contain toxic substances; it is more durable; it does not use materials that harm the environment; and it uses eco-labeled packaging or recyclable materials (Grant, 2007). Research by Jave-Chire et al. (2025) ndicates that green products positively influence brand value, whereas Liu and Kim (2025) discovered that green products positively affect brand attitudes. These findings indicate that eco-friendly product attributes can shape consumers' positive perceptions of and associations with a brand.

Green Price

Green Price is the price established by considering product quality, environmental benefits, and the sustainability value perceived by consumers (Kotler &

Keller, 2016). It is measured using the following indicators: price affordability; correlation of price with quality; relationship of price with benefits; and price competitiveness. According to Liu and Kim (2025), state that green prices positively impact brand attitude. Moreover, Yadav et al. (2024) discovered that buyers are likely to buy sustainable footwear even if it comes at a premium, as they value the environmental advantages gained.

Green Place

Green Place pertains to allocation activities that promote environmental sustainability through the use of environmentally friendly distribution channels and retail locations (Mauludi, 2021). This variable is measured by indicators such as the presence of stores selling eco-friendly products; and the ease of locating these products in stores that implement sustainability practices (Davari & Strutton, 2014). Jave-Chire et al. (2025) found that green place affects brand value. However, Liu and Kim (2025) revealed that the green place aspect of green marketing mix does not meaningfully influence consumers attitude toward a brand. These divergent findings suggest that the impact of green place warrants further investigation.

Green Promotion

Green promotion involves marketing efforts aimed at increasing consumer awareness about environmental concerns and the advantages of eco-friendly products (Peattie, 1995). It is operationalized using indicators such as campaigns that associate products with the environment, campaigns promoting green lifestyles, and campaigns demonstrating corporate environmental responsibility (Tiwari et al., 2011). Jave-Chire et al. (2025) and Liu and Kim (2025) found that green promotion positively influences consumers' perceptions of brands, indicating that marketing communications emphasizing sustainability can strengthen consumers' positive brand associations.

Brand Association

Brand Association comprises all elements stored in consumers' memory regarding a brand and constitutes a component of brand equity (Aaker, 1991). In this study, Brand Association was measured using the following indicators: strength; uniqueness; favorability; depth of meaning; recognition; user image; corporate imageand attitudes (Aaker, 1991; Lane Keller, 2013) Lin et al. (2022) found that positive brand perceptions influence consumer behavior and repurchase intentions. The stronger consumers' associations with a brand, the more likely they are to accept and choose sustainable footwear.

Sustainable Footwear

Sustainable footwear refers to footwear products that utilize environmentally friendly materials, adopt circular economy principles, and seek to minimize negative environmental impacts (Gazzola et al., 2020). This variable is measured using indicators like the utilization of organic and vegan materials; recycling and circular-economy methods; reduction of carbon footprint; eco-friendly production techniques; and the application of recycled and recyclable materials (Pantazi-Băjenaru et al., 2023) In this study, Brand Association is conceptualized as an intermediary variable connecting the Green Marketing Mix to Sustainable Footwear. An effective green marketing strategy is expected to foster strong brand associations, which in turn enhance consumer acceptance of sustainable footwear.

Hypothesis Development

H1 : Green Product influences Brand Association.
H2 : Green Price influences Brand Association.
H3 : Green Place influences Brand Association.
H4 : Green Promotion influences Brand Association.
H5 : Green Product influences Sustainable Footwear.

H6 : Green Price influences Sustainable Footwear.
H7 : Green Place influences Sustainable Footwear.
H8 : Green Promotion influences Sustainable Footwear.
H9 : Brand Association influences Sustainable Footwear.
H10 : Green Product influences Sustainable Footwear through Brand Association.
H11 : Green Price influences Sustainable Footwear through Brand Association.
H12 : Green Place influences Sustainable Footwear through Brand Association.
H13 : Green Promotion influences Sustainable Footwear through Brand Association.

Utilizing prior research and the impacts of different variables noted in numerous studies, the subsequent conceptual framework is suggested as the foundation for developing the hypotheses specified in Figure 3.

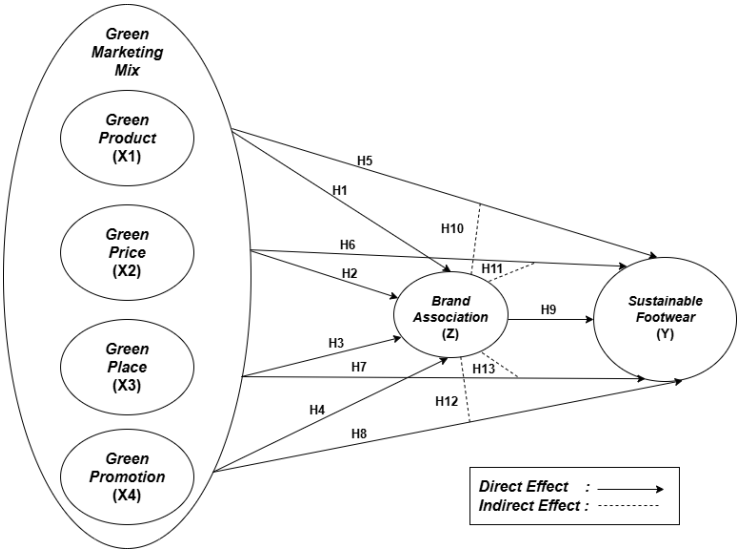

Figure 3. Conceptual Framework

METHODOLOGY

In order to examine the extent to which the Green Marketing Mix influences sustainable footwear, the present study employed a quantitative method with an explanatory research design, with Brand Association serving as a mediating element. The study was carried out in Jakarta with consumers who were 18 years or older and showed interest in sustainable footwear. Purposive sampling was used, applying the following requirements for inclusion: (1) at least eighteen years old; (2) resident of Jakarta; (3) aware of footwear brand promotions that emphasize environmental attributes; (4) familiar with environmentally friendly products; (5) users of and interested in sustainable footwear; (6) have access to the internet and media digital. The research sample included of 270 respondents, which satisfied the minimum sample size requirement (Hair et al., 2011).

Data were gathered through an online survey conducted via Google Forms utilizing a likert scale combined with six points that range from 1 (strongly disagree) to 6 (strongly agree). The research model included the following variables: independent variables Green Product (measured by five indicators), Green Price (four indicators), Green Place (two indicators), and Green Promotion (three indicators); a mediating variable Brand Association (eight indicators); and the dependent variable Sustainable Footwear (five indicators). Data analysis was performed utilizing Partial Least Squares

Structural Equation Modeling (PLS-SEM) through SmartPLS software. The analytical methods involved verifying the validity and reliability of the outer (measurement) model, assessing the inner (structural) model using the coefficient of determination (R^2) and predictive relevance (Q^2), and evaluating hypotheses by analyzing path coefficients to measure direct and indirect effects among variables. The following interpretations are presented in this study:

$$Z = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e\text{……..(1)}$$

$$Y = a + b_5X_1 + b_6X_2 + b_7X_3 + b_8X_4 + b_9Z + b_{10}X_1\_Z + b_{11}X_2\_Z + b_{12}X_3\_Z + b_{13}X_4\_Z + e\text{……..(2)}$$

Description:
X_1 = Green Product
X_2 = Green Price
X_3 = Green Place
X_4 = Green Promotion
Z = Brand Association
Y = Sustainable Footwear
b_1-b_{13} = coefficient
e….(1) = Error
e….(2) = Error
X_1_Z = Green Products Through Brand Association
X_2_Z = Green Price Through Brand Association
X_3_Z = Green Place Through Brand Association
X_4_Z = Green Promotion Through Brand Association

RESULT AND DISCUSSION

Respondent Characteristics Analysis

An online research questionnaire via Google Forms was administered to 270 participants to assess variables related to the Green Marketing Mix, including Green Product, Green Price, Green Place, Green Promotion, Sustainable Footwear, and Brand Association. This research makes the community in the Jakarta area, especially consumers of sustainable footwear products, the object of research.

Table 3. Characteristics of Respondents

Characteristics	Group	Respondents	Precentage
Gender	Male	76	28,1
	Women	194	71,9
Age	18 – 24 Years	178	65,9
	25 – 34 Years	55	20,4
	35 – 44 Years	22	8,1
	45 -54 Years	11	4,1
	>55 Years	4	1,5
Latest Education	SD	0	0
	SMP/Sederajat	0	0
	SMA/Sederajat	184	68,1
	S1	80	29,6
	S2	6	2,2
	S3	0	0
Occupation	Students	148	54,8
	Civil Servant	7	2,6
	Private Employees	82	30,4

	Entrepreneur/Self-Employed	14	5,2
	Housewives	15	5,6
	TNI	2	0,7
	Freelance	2	0,7
Domicile	West Jakarta	29	10,7
	Central Jakarta	62	23
	South Jakarta	121	44,8
	East Jakarta	40	14,8
	North Jakarta	18	6,7
Monthly Income	<Rp. 1.000.000	104	38,5
	Rp. 1.000.000-Rp. 3.000.000	46	17
	Rp. 3.000.000-Rp. 5.000.000	46	17
	Rp. 5.000.000-Rp. 7.000.000	60	22,2
	Rp. 7.000.000-Rp. 10.000.000	12	4,4
	>Rp. 10.000.000	2	0,7
Exposure to eco-friendly footwear advertising	Yes	270	100
	No	0	0
Level of understanding of environmentally friendly products	Very incomprehensible	0	0
	Don't Understand At All	0	0
	Don't Understand	0	0
	Understand	208	77
	Understand At All	48	17,8
	Very Understanding	14	5,2
Use/interest in eco-friendly footwear	Ever used	63	23,3
	Never used, but interested	207	76,6
	Never used and not interested	0	0
Internet access and usage perangkat digital	Yes	270	100
	No	0	0

Source: Author's compilation (2026)

This study is primarily composed of women aged 18-24 years, who have completed high school or equivalent education and are categorized as students. The majority of respondents are domiciled in South Jakarta and have an income of less than IDR 1.000.000 per month. All respondents had been exposed to environmentally friendly footwear advertisements and had adequate internet access. Furthermore, the majority of participants possess a solid comprehension of environmentally friendly products and demonstrate a strong interest in sustainable footwear, even though they have never used it. These findings show that the young generation in Jakarta has a fairly good environmental awareness and has the potential to become the main target market for sustainable footwear products.

Descriptive Analysis of Research Variables

Descriptive statistics illustrate the data obtained from the research variables employed, encompassing maximum values, minimum values, mean values, and standard deviations. The variables investigated in this research consist of the Green Marketing Mix which includes Green Place, Green Price, Green Product, and Green

Promotion as well as Sustainable Footwear and Brand Association, all of which are summarized in the descriptive statistical test results shown in the table below:

Table 4. Descriptive Statistics of Research Results Data

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Green Product	270	5	30	24,32	5,480
Green Price	270	4	24	19,35	4,054
Green Place	270	2	12	9,7	2,257
Green Promotion	270	3	18	14,4	3,439
Brand Association	270	8	48	38,56	8,759
Sustainable Footwear	270	5	30	23,81	5,287

Source: Processed Primary Data (2026)

The outcomes of descriptive statistics demonstrate that all research variables possess high average values and are close to the maximum value, namely green product (24.32), green price (19.35), green place (9.70), green promotion (14.40), brand association (38.56), and sustainable footwear (23.81). These findings indicate that respondents have a positive perception of the application of the green marketing mix, the formation of a brand association, and the acceptance of sustainable footwear. In addition, the relatively low standard deviation value shows that respondents' answers tend to be homogeneous and illustrate a fairly high level of agreement on all research variables.

Outer Model Test

The outer model examines the relationship between the indicator and the latent variable, and the stages involved in this test are as follows:

a. Validity Test

The validity examination utilizing SmartPLS software was determined by evaluating convergent validity (loading factor), discriminant validity, and the significance levels of latent variables within the research model, which illustrate the relationship among construct indicators. The validity test starts by inputting the response data from the questionnaire results that have been transformed into numerical format.

Table 5. Outer Loadings Validity Test

Variable	Indicator	Loading	Description
Green Product	X1.01	**0,832**	Legitimate
	X1.02	**0,817**	Legitimate
	X1.03	**0,770**	Legitimate
	X1.04	**0,852**	Legitimate
	X1.05	**0,850**	Legitimate
Green Price	X2.01	**0,771**	Legitimate
	X2.02	**0,790**	Legitimate
	X2.03	**0,842**	Legitimate
	X2.04	**0,810**	Legitimate
Green Place	X3.01	**0,883**	Legitimate
	X3.02	**0,917**	Legitimate
Green Promotion	X4.01	**0,864**	Legitimate
	X4.02	**0,846**	Legitimate

	X4.03	**0,863**	Legitimate
Brand Assosiation	Z.01	**0,837**	Legitimate
	Z.02	**0,824**	Legitimate
	Z.03	**0,821**	Legitimate
	Z.04	**0,837**	Legitimate
	Z.05	**0,797**	Legitimate
	Z.06	**0,824**	Legitimate
	Z.07	**0,827**	Legitimate
	Z.08	**0,776**	Legitimate
Sustainable Footwear	Y.01	**0,821**	Legitimate
	Y.02	**0,841**	Legitimate
	Y.03	**0,812**	Legitimate
	Y.04	**0,814**	Legitimate
	Y.05	**0,751**	Legitimate

Source: Processed Primary Data (2026)

The findings from the convergent validity assessment indicated that every indicator demonstrated an outer loading value >0.70, thereby satisfying the suggested validity standards. These results indicate that every indicator can effectively represent the assessed construct. All indicators are confirmed valid and may be utilized in subsequent research model testing.

b. Reliability Test

To evaluate the quality, reliability tests were carried out and consistency of questionnaire items for the entire study. In evaluating the reliability of a construct through SEM in SmartPLS, examine the outcomes of Cronbach's alpha and composite reliability for the indicator block. A table of the results from the reliability test calculations is provided below:

Table 6. Results of Reliability Test

Variable	**Cronbach's Alpha**	**Compositer Reliability (Rho_A)**	**Composite Reliability (Rho_C)**	**Average Variance Extracted (AVE)**	**Description**
Green Product	0,882	0,886	0,914	0,680	Reliebel
Green Price	0,817	0,820	0,879	0,646	Reliebel
Green Place	0,767	0,781	0,895	0,810	Reliebel
Green Promotion	0,821	0,826	0,893	0,736	Reliebel
Brand Association	0,929	0,931	0,942	0,669	Reliebel
Sustainable Footwear	0,867	0,869	0,904	0,654	Reliebel

Source: Processed Primary Data (2026)

The reliability test results indicated that every research variable exhibited Cronbach's Alpha and Composite Reliability values >0.70. These results suggest that the whole construct demonstrates a strong internal consistency and adheres to the suggested reliability standards. The research tool was confirmed to be reliable and suitable for further analysis.

c. Output Discriminant Validity

Table 7. Results of Fornell-Lacker Criterion

Variable	Brand Association	Green Place	Green Price	Green Product	Green Promotion	Sustainable Footwear
Brand Association	0.818					
Green Place	0.537	0.900				
Green Price	0.613	0.614	0.804			
Green Product	0.674	0.522	0.570	0.825		
Green Promotion	0.565	0.489	0.546	0.497	0.858	
Sustainable Footwear	0.685	0.573	0.636	0.582	0.576	0.808

Source: Processed Primary Data (2026)

Based on the Fornell-Larcker Criterion results, the square root of AVE for each construct on the diagonal was greater than its correlations with other constructs, with values ranging from 0.818 to 0.900. This indicates that each construct in the research model measures a distinct concept without overlapping with one another (Fornell & Lacker, 1981). These results are further reinforced by the HTMT test, in which all HTMT values between constructs did not exceed the 0.90 threshold, confirming that the discriminant validity of the research model is satisfied (Sarstedt et al., 2017).

Table 8. Results of Heterotrait-Monotrait Ratio (HTMT)

Variable	Brand Association	Green Place	Green Price	Green Product	Green Promotion	Sustainable Footwear
Brand Association						
Green Place	0.629					
Green Price	0.700	0.774				
Green Product	0.740	0.627	0.670			
Green Promotion	0.644	0.612	0.666	0.577		
Sustainable Footwear	0.758	0.700	0.754	0.662	0.677	

Source: Processed Primary Data (2026)

The HTMT analysis revealed that all inter-construct values remained below the 0.90 threshold, ranging from 0.577 between Green Promotion and Green Product to 0.774 between Green Price and Green Place. These results demonstrate that each construct in the research model captures a distinctly different concept with no measurement overlap between constructs, confirming that discriminant validity is fully satisfied across all constructs (Sarstedt et al., 2017).

Inner Model (Goodness Of Fit Model) (R^2)

The inner model test is carried out after the evaluation of the outer model is completed. Structural model evaluation in PLS-SEM was carried out using the R^2 value to measure the ability of independent variables account for dependent variables, as

well as path coefficients and t-statistics to test the significance of relationships between constructs. The results of the calculation of the R^2 value using SmartPLS 4 on each endogenous variable are presented in the following table:

a. R-Square

Table 9. R-Square Value of Endogenous Variables

Variable	R-square	R-square adjusted
Brand Association	0.568	0.561
Sustainable Footwear	0.594	0.580

Source: Processed Primary Data (2026)

The R-square value of 0.568 (Adjusted R^2 = 0.561) for Brand Association shows that Green Marketing accounts for 56.8% of the variation in Brand Association, with the other 43.2% affected by factors not included in the model. These findings indicate that models possess a quite robust capacity to clarify the development of brand associations in sustainable footwear items. In the meantime, the R-square figure for Sustainable Footwear, which is 0.594 (Adjusted R^2 = 0.580), indicates that Green Marketing and Brand Association combined account for 59.4% of the variation in Sustainable Footwear, leaving 40.6% affected by other unexamined factors.

b. Predictive Relevance (Q^2)

The assessment of the structural model's fit quality was determined by the predictive relevance (Q2) value. The Q2 value for predictive relevance is determined through the subsequent formula:

$Q^2 = 1 - (1 – R^2t) (1 – R^22)$

$Q^2 = 1 – (1- 0,568) (1- 0,594)$

$Q^2 = 1 – (0,432) (0,406)$

$Q^2 = 1 – 0,1754$

$Q^2 = 0,824$

From the results of the predictive relevance (Q^2) calculation, a value of 0.824, which is equivalent to 82.46%, was achieved. This figure indicates that the structural model in the research could account for 82.46% of the variability in the observed data, with the remaining 17.54% attributed to factors beyond the study model.

Hypothesis Test

Table 10. Direct Effect Results

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T statistics	P values	Description	Hypothesis
Green Product -> Brand Association	0,400	0,400	0,084	4,740	0,000	Significant	Supported
Green Price -> Brand Association	0,216	0,218	0,095	2,264	0,024	Significant	Supported
Green Place -> Brand Association	0,098	0,096	0,081	1,211	0,226	Insignificant	Not Supported
Green Promotion -> Brand Association	0,200	0,203	0,084	2,374	0,018	Significant	Supported
Green	0,051	0,058	0,118	0,437	0,662	Insignificant	Not

Product -> Sustainable Footwear							Supported
Green Price -> Sustainable Footwear	0,198	0,200	0,103	1,920	0,055	Significant	Supported
Green Place -> Sustainable Footwear	0,142	0,131	0,084	1,691	0,091	Significant	Supported
Green Promotion -> Sustainable Footwear	0,187	0,187	0,080	2,348	0,019	Significant	Supported
Brand Association -> Sustainable Footwear	0,409	0,410	0,105	3,881	0,000	Significant	Supported

Source: Processed Primary Data (2026)

Brand Association = a + 0,400 X_1+ 0,216 X_2+ 0,098 X_3+ 0,200 X_4+ e…….(1)

Green Place failed to exert a significant influence on Brand Association, while Green Product, Green Price, and Green Promotion demonstrated a notable effect, according to the test results for direct effects. Besides that, Sustainable Footwear was greatly impacted through Green Price, Green Place, Green Promotion, and Brand Association, while Green Product had no effect. These findings indicate that price, distribution, promotion, and brand association are the primary factors influencing consumer acceptance of sustainable footwear.

Table 11. Indirect Effect Results

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T statistics	P values	Keterangan	Hipotesis
Green Product -> Brand Association -> Sustainable Footwear	0,164	0,164	0,057	2,885	0,004	Significant	Supported
Green Price -> Brand Association -> Sustainable Footwear	0,088	0,088	0,044	2,026	0,043	Significant	Supported
Green Place -> Brand Association -	0,040	0,039	0,035	1,143	0,253	Insignificant	Not Supported

> Sustainable Footwear							
Green Promotion -> Brand Association -> Sustainable Footwear	0,082	0,084	0,043	1,895	0,058	Significant	Supported

Source: Processed Primary Data (2026)

Sustainable Footwear = a + 0,051 X_1+ 0,198 X_2+ 0,142 X_3+ 0,187 X_4+0,409 Z + 0,164 X_1_Z+ 0,088 X_2_Z + 0,082 X_3_Z+ 0,040 X_4_Z+ e…….(2)

The indirect effects test results demonstrated that Brand Association acted as a significant mediator in the relationship between Green Product, Green Price, and Green Promotion and Sustainable Footwear. Nevertheless, Brand Association failed to mediate the effect of Green Place on Sustainable Footwear. These outcomes suggest that Brand Association meaningfully contributes to amplifying the influence of green marketing mix strategies on consumer acceptance of sustainable footwear, particularly through product, pricing, and promotional channels. Based on the path model results, Green Product exhibits the most substantial influence on Brand Association (0.400), establishing it as the dominant factor in the formation of brand associations. On the other hand, Green Promotion records the highest direct effect on Sustainable Footwear (0.187), underscoring the relevance of environmentally driven promotional efforts in elevating consumer acceptance. Additionally, Brand Association exerts a considerable effect on Sustainable Footwear (0.409), affirming its pivotal role as a bridge between the Green Marketing Mix strategy and consumer inclination toward sustainable footwear products.

The Influence of Green Products (X1) on Brand Association (Z)

Green Product (X1) demonstrates a positive and significant influence on Brand Association (Z), thereby supporting the first hypothesis. This suggests that the incorporation of environmentally friendly, safe, and long-lasting materials is capable of building favorable perceptions among consumers toward sustainable footwear brands. Grant (2007) affirmed that consumer interest in environmentally conscious production processes enhances product appeal and elevates brand association. These results are in agreement with Jave-Chire et al. (2025) and Murtiningsih (2025), who established that eco-friendly product attributes contribute to the enhancement of brand value and consumer perception.

The Influence of Green Price (X2) on Brand Association (Z)

Green price (X2) has a positive and significant effect on brand association (Z) therefore, the second hypothesis is supported. Prices perceived as commensurate with product quality and environmental benefits can enhance consumers' trust in the brand. The congruence between the price charged and the benefits received by consumers generates a notably favorable impact on a product's perception. Such alignment cultivates a positive brand association within the minds of buyers, ultimately stimulating their intention to acquire the product (Kotler & Keller, 2016). This finding is consistent with Liu and Kim (2025), who report that green price influences brand attitude.

The Influence of Green Place (X3) on Brand Association (Z)

Green place (X3) had no significant effect on brand association (Z) therefore, the third hypothesis was rejected. Ease of distribution has not been a primary factor in forming brand associations, as consumers place greater emphasis on product quality, environmental benefits, and the brand's sustainability image. Davari & Strutton (2014) noted that not all consumers are motivated to purchase based on a store's sustainability principles. The growing dominance of digital marketplaces as more effective purchasing channels further diminishes the role of physical green retail in shaping brand associations, consistent with (Kumar & Ghodeswar, 2019).

The Influence of Green Promotion (X4) on Brand Association (Z)

Green Promotion (X4) exhibits a positive and significant effect on Brand Association (Z), thus supporting the fourth hypothesis. Environmental campaigns and sustainability-oriented communication are capable of fostering favorable consumer perceptions toward a brand. Tiwari et al. (2011) established that campaigns linking products to environmental issues positively shape consumer perception. These results are in accordance with Jave-Chire et al. (2025), who demonstrated that green promotion contributes to the improvement of brand value.

The Influence of Green Products (X1) on Sustainable Footwear (Y)

Green Product (X1) does not exert a significant effect on Sustainable Footwear (Y), resulting in the rejection of the fifth hypothesis. The eco-friendly characteristics embedded in the products are not sufficient to directly drive consumers toward choosing sustainable footwear, as they tend to take into account additional factors such as price, promotion, and brand. Grant (2007) noted that the use of recycled materials does not substantially sway consumer decisions, meaning green product attributes do not directly drive preference for sustainable footwear. This suggests that eco-friendly characteristics alone are insufficient to be consumers' primary consideration when choosing sustainable footwear products. This is consistent with Chekima et al. (2019), who found that environmental knowledge and concern do not significantly predict green purchase intention, while behavioral attitudes and subjective norms prove more decisive.

The Influence of Green Price (X2) on Sustainable Footwear (Y)

Green Price (X2) has a positive and significant effect on Sustainable Footwear (Y), leading to the acceptance of the sixth hypothesis. Consumers are willing to pay a premium price when they perceive it to be proportionate to the product's quality, benefits, and environmental contribution. Kotler & Keller (2016) demonstrated that the compatibility between the price offered and the benefits perceived by consumers exerts a meaningfully positive influence on the acceptance of sustainable footwear products. These results are consistent with Yadav et al. (2024), who found a high level of willingness among consumers to pay for sustainable footwear.

The Influence of Green Place (X3) on Sustainable Footwear (Y)

Green place (X3) has a positive and significant effect on sustainable footwear (Y) thus, the seventh hypothesis is accepted. Ease of access via physical stores and digital platforms increases the probability that customers will select sustainable footwear. Davari & Strutton (2014) affirmed that availability through sustainability-supporting stores generates positive consumer responses. These findings are consistent with Novalensiago (2025), who reported a positive effect of sustainable place on sustainability.

The Influence of Green Promotion (X4) on Sustainable Footwear (Y)

Green promotion (X4) has a positive and significant effect on sustainable footwear (Y) therefore, the eighth hypothesis is accepted. Promotions that emphasize environmental and sustainability benefits can increase consumer awareness of and interest in these products. Tiwari et al. (2011) established the positive impact of

environment-linked campaigns on consumer perception. This finding is consistent with Mustofa and Maula (2026), who reported that environmental advertising influences green purchase intention.

The Influence of Brand Association (Z) on Sustainable Footwear (Y)

Brand Association (Z) exhibits a positive and significant effect on Sustainable Footwear (Y), thereby leading to the acceptance of the ninth hypothesis. The stronger the brand association held by consumers, the higher the probability that they will opt for sustainable footwear products. Aaker (1991) established that consumers are drawn to brands with strong, credible reputations. These results are in line with Lin et al. (2022), who established that brand perception shapes consumer behavior and repurchase intentions.

The Influence of Green Products (X1) on Sustainable Footwear (Y) Through Brand Association (Z)

Brand association (Z) mediated the effect of green products (X1) on sustainable footwear (Y), thereby supporting the tenth hypothesis. The characteristics of eco-friendly products create positive brand associations, which in turn increase consumer acceptance of sustainable footwear. Grant (2007) affirmed that consumers tend to favor products manufactured through environmentally responsible processes, supporting the significant role of green product in influencing sustainable footwear. This is reinforced by Aaker (1991) , who noted that consumers are drawn to brands with strong and credible reputations. Together, these perspectives confirm that green product indirectly influences sustainable footwear through brand association as a mediating variable. These findings are consistent with Jave-Chire et al. (2025) and Murtiningsih (2025) emphasized the importance of brand perception in green marketing.

The Influence of Green Price (X2) on Sustainable Footwear (Y) through Brand Association (Z)

Brand association (Z) was found to mediate the impact of green price (X2) on sustainable footwear (Y), thereby supporting the eleventh hypothesis. Prices that correspond to a product's perceived benefits and quality strengthen brand associations and encourage consumers to choose sustainable footwear. Kotler & Keller (2016) established that the compatibility between price and perceived benefits positively affects sustainable footwear, confirming that green price influences consumer acceptance. This price-benefit alignment also strengthens brand association, leading to the conclusion that green price significantly influences sustainable footwear through brand association as a mediating variable. These findings are consistent with Liu and Kim (2025) and Lin et al. (2022).

The Influence of Green Place (X3) on Sustainable Footwear (Y) through Brand Association (Z)

Brand association (Z) was unable to mediate the effect of Green Place (X3) on sustainable footwear (Y) consequently, the twelfth hypothesis was rejected. Ease of distribution is insufficient to establish a brand association that enhances consumer acceptance of sustainable footwear. Davari & Strutton (2014) found that not all consumers are motivated to purchase simply because a retailer adopts sustainability principles, while Aaker (1991) noted that strong visual brand identity does not necessarily drive sustainable footwear preference. Both perspectives support the conclusion that green place does not significantly influence sustainable footwear through brand association as a mediating variable. This can be attributed to the minimal offline presence of eco-footwear brands Pijakbumi, for instance, operates only one physical store in Bandung as most sales are concentrated on digital platforms. Consequently, consumer-brand interactions occur predominantly online, meaning brand perception is shaped more by product quality, eco-friendly materials, and marketing communication rather than physical distribution channels, rendering the

indirect effect of green place on sustainable footwear through brand association insignificant.

The Influence of Green Promotion (X4) on Sustainable Footwear (Y) through Brand Association (Z)

Brand association (Z) mediated the effect of green promotion (X4) on sustainable footwear (Y) thus, thirteenth hypothesis was supported. Promotions emphasizing sustainability create positive brand associations and increase consumers' propensity to choose sustainable footwear. Tiwari et al. (2011) confirmed that environment-linked campaigns create positive consumer perceptions, while Aaker (1991) emphasized the role of brand reputation in consumer attraction. These results are consistent with Jave-Chire et al. (2025) and Mustofa and Maula (2026), who found that environmental promotion can enhance brand perceptions and increase purchase intentions for environmentally friendly products.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of this research concerning the influence of the green marketing mix on sustainable footwear as mediated by brand association, it can be concluded that Green Product, Green Price, and Green Promotion positively and significantly affected brand association, whereas Green Place did not demonstrate a meaningful impact. The study further revealed that Green Price, Green Place, Green Promotion, and Brand Association positively and significantly influenced sustainable footwear, while Green Product failed to produce a direct effect. Moreover, brand associations were observed to mediate the impacts of green product features, green pricing strategies, and green promotional efforts on sustainable footwear, yet did not mediate the influence of green distribution methods. These outcomes indicate that the success of green marketing mix strategies in enhancing consumer interest in sustainable footwear depends not only on product, pricing, distribution, and promotion elements, but also on the firm's ability to cultivate strong brand associations grounded in sustainability values that consumers perceive positively.

Therefore, future studies ought to expand the range of investigation to encompass a range of environmentally friendly products beyond sustainable footwear and cover wider geographic areas to enhance representativeness. Researchers may also incorporate additional variables such as environmental awareness, product innovation, social media influence, brand trust, and consumer satisfaction to develop a more comprehensive research model. Moreover, employing mixed methods, more heterogeneous sampling, and longer study periods (including longitudinal designs) would provide deeper insights into changes in consumer attitudes and behaviors toward sustainable products. Consequently, the results of the study aim to offer a more precise and thorough insight into the elements affecting consumer acceptance of sustainable footwear.

FURTHER STUDY

This research has various constraints. First, it was conducted only among sustainable footwear consumers in Jakarta, so the findings cannot be generalized to all consumers in Indonesia, who may differ in social and cultural characteristics. Second, the study focused exclusively the Green Product, Green Price, Green Place, and Green Promotion components of the Green Marketing Mix, but other relevant factors, such as environmental awareness, product innovation, and brand loyalty, were not examined. Third, data were collected via online questionnaires, which may have introduced response bias. Additionally, the study's cross-sectional design precludes assessment of

shifts in the behavior of consumers throughout time. Finally, because the analysis relied solely on quantitative data and the sample was limited to the Jakarta area, consumers underlying motivations were not explored in depth and the findings may not be fully representative of sustainable footwear consumers across Indonesia.

ACKNOWLEDGMENT

Future research is encouraged to further explore several low-validity indicators identified across all constructs in this study. In the Green Product construct, the use of recycled materials warrants deeper investigation, particularly regarding its limited contribution to both Brand Association and Sustainable Footwear. For Green Price, consumer perceptions of eco-friendly product affordability should be examined more thoroughly to better understand its role in purchase decisions. Regarding Green Place, future studies should explore whether eco-friendly store categorization and strategic product accessibility influence brand building, while also considering alternative mediating variables given the non-significant hypothesis in this construct. Within Green Promotion, the clarity of environmental promotional information and campaigns promoting green lifestyles deserve further evaluation to assess their effectiveness in driving Sustainable Footwear interest. Finally, in the Brand Association construct, future research should strengthen the indicator of consumer ease in recalling a brand through visual elements such as logos, colors, and names, as it recorded the lowest validity value, while also investigating the mediating role of brand uniqueness alongside recycled material usage and price affordability indicators, all of which demonstrated relatively limited contributions to the overall research model.

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