Original Researcher Article

Customer's Attitude towards Green Brand Image in the Fast-Moving Consumer Goods Sector

Risha Thakur¹, Dr. Anita Singh² and Dr. Arora Gaurav Singh³

¹Research Scholar School of Business Studies Sharda University, India

Email: <u>risha.research28@gmail.com</u>
²Professor Sharda University, India
Email: <u>anitasingh3052@gmail.com</u>

³Associate Professor Bennett University, India

Email: gaurav.arora@bennett.edu.in

Received: 30/09/2025 Revised: 07/10/2025 Accepted: 22/10/2025 Published: 06/11/2025

ABSTRACT

This investigation looks at how eco-friendly product design (EFPD), environmental positive externalities (EPE), and green product advertising (GPA) affect green brand image (GBI) among customers. The results, obtained from 380 respondents and analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM), demonstrate the reliability and validity of all constructs. The results suggest that EPE and GPA greatly improve GBI, but EFPD has just a moderate impact. The model accounts for 63% of the variance in GBI, suggesting high predictive ability. These findings demonstrate that customers' environmental impressions and favourable green attitudes have a greater influence on brand image than container design alone. This study offers marketers actionable ideas for improving green branding, including transparency, environmental communication, and trust-building activities. It emphasises the need for sustainability strategies that incorporate tangible eco-design, genuine communication, and verifiable social benefits for the purpose of enhancing consumer confidence and devotion in rapidly evolving green marketplaces.

Keywords: Green Brand Image, Eco-Friendly Product Design, Green Product Advertising, Environmental Positive Externalities & Sustainable Consumption.

INTRODUCTION:

Walking down any grocery aisle nowadays, recycledleaf iconography, earthy tones, and emphatic pledges of purity are observed. In the fast-moving consumer goods business, brands compete not just on price and convenience but also regarding how "green" they seem. While eco-friendly indicators are common, credibility is limited, and customers are becoming more demanding of proof that sustainability promises are supported by concrete action. This begs the issue of which levers truly boost a business's green image: sustainable product design, ecologically friendly advertising, as well as the larger social advantages people feel a brand creates. Sustainability has emerged as a prominent subject in marketing and consumer research, especially regarding fast-moving consumer goods (FMCG), where brief lifespans of products, frequent repurchases, and packaging-intensive have items considerable environmental implications in terms of waste, greenhouse gases, and resource depletion.

Consumers today want firms to be accountable not just via environmentally responsible design and honest communication, but also by making concrete advances to environmental wellness. Globally, sustainable consumption has evolved from a niche issue to a universal expectation, owing to increased knowledge of climate change and declines in biodiversity, especially

resource constraints. Previous research emphasises the significance of sustainability-orientated behaviours. Eco-friendly product design (EFPD) increases customer confidence and ability to pay by reducing environmental impact through packaging and selection of materials (Chen & Chang, 2012; Mahmoud et al., 2022). Green product advertising (GPA) impacts purchasing decisions by affecting customer views of trustworthiness and genuineness in environmental messages (Grimmer & Woolley, 2014; Reddy et al., 2023).

Environmental positive externalities (EPE), which include fewer disposable items or cleaner air, might influence consumer attitudes by connecting purchases to larger community benefits (Hartmann & Apaolaza-Ibáñez, 2012; Nguyen et al., 2017). Consequently, these techniques help to improve the green brand image (GBI), a vital intangible asset that promotes confidence, loyalty, and a lasting competitive advantage (Chen, 2010; Watson, 2024). Given these findings, current research stays scattered. Most studies focus on eco-friendly layout, commercials, or externalities as standalone rather than integrating them throughout a comprehensive framework. Sustainable product packaging, for example, has been extensively researched in FMCG (Mahmoud et al., 2022; Yonalia, 2025), but green advertising analysis has primarily focused on the structure of messages (Grimmer & Woolley, 2014).

Additionally, the role of externalities is being studied in the energy and business sectors, but not in FMCG, notwithstanding its significant ecological imprint. Furthermore, many studies focus just on direct impacts, ignoring the overall effect of design, communication, and social spillovers on green brand image. The present study fills these gaps by developing and experimentally validating a PLS-SEM framework that includes EFPD. GPA, and EPE as predictors of GBI in the FMCG industry. Its impact is twofold: first, it separates the relative effect of design, interaction, and externalities in creating brand perceptions, and additionally, it shows how SmartPLS may be used to model complicated connections in sustainable marketing. OBy focusing on FMCG, a market with short buying cycles, saturated claims, and substantial environmental risks, this study gives current insights into theorising as well as working in sustainable consumption.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Sustainability has evolved into a fundamental concern in consumer markets, especially in the fast-moving consumer goods (FMCG) industry, where high consumption rates and visibility of packaging heighten customer impressions of environmental practices. Businesses are increasingly being assessed not just for the practical excellence of their goods but also for their impact on the environment and society (Joshi and Rahman, 2019). According to the current setting, constructs that involve Eco-Friendly Product Design (EFPD), Green Product Advertising (GPA), and Environmental Positive Externalities (EPE) have come into play as critical components of Green Brand Image (GBI), a construct that incorporates consumer perceptions of a brand's environmental legitimacy and accountability (Chen, 2010). This section examines relevant literature on these dimensions, focusing on empirical evidence from the FMCG business, and generates hypotheses that are compatible with the suggested conceptual model.

3.1 Eco-Friendly Product Design (EFPD)

Eco-friendly product design (EFPD) entails using sustainable materials, reducing resource intensity, minimising packaging, and designing for recyclability or reuse. Unlike nebulous pledges, EFPD gives clear and real "hard signals" of a company's commitment to preserving the environment. In FMCG, whereby consumers encounter packaging and product shape on a regular basis, design signals have a disproportionate impact on sustainability views. Chen and Chang (2012) found that eco-design dramatically increases green perceived value and trust, both of which are major indicators of purchase intention, similarly, Mahmoud et al. (2022) discovered that in the FMCG industry, sustainable packaging improves willingness to pay and retention of consumers, validating its significance as a differentiator.

Yonalia (2025) also said that packaging serves as both a container and a brand equity generator, with ecodesign characteristics increasing consumer-brand ties in areas including personal care and food items. Prakash and Pathak (2017) emphasised that eco-labelling and package design should be viewed as integrative factors rather than distinct techniques, since holistic cues boost perceived legitimacy. These findings show that FMCG firms engaging in sustainable design approaches promote more positive brand impressions, especially when consumers demand environmentally responsible options in daily categories.

3.2 Green Product Advertising (GPA)

While eco-design sends concrete messages, advertising influences how customers perceive, internalise, and recall those signals. Green Product Advertising (GPA) is a marketing communication strategy that emphasises a brand's environmental policies and advantages. The persuasiveness of GPA is strongly reliant on trustworthiness, precision, and openness. Leonidou et al. (2013) claimed that unambiguous, verified assertions reduce scepticism and increase trust, but unclear or overblown signals may be seen as greenwashing. Grimmer and Woolley (2014) found that advertising emphasising environmental advantages individual value significantly boosts purchasing intention. This is especially important in FMCG situations, where customer choice is frequently based on little participation and short judgements; successful GPA may establish memorable memories that tilt the scale towards sustainable companies.

Reddy et al. (2023) discovered that honest and authentic advertising boosts consumer loyalty in FMCG, wherein brand switching is commonplace. Furthermore, GPA can boost the effectiveness of eco-design cues by directly relating packaging or material advances to measured environmental impacts. Thus, GPA not only conveys sustainability but also assists consumers in assigning meaning and validity to design-based activities. This finding highlights the importance of transparent communication in marketing strategies, particularly in industries characterised by frequent brand shifts. By leveraging GPA, companies can enhance consumer trust and foster a deeper emotional connection, ultimately driving sustainable purchasing behaviours.

3.3 Environmental Positive Externalities (EPE)

Environmental Positive Externalities (EPE) represent societal and ecological advantages resulting from sustainable consumption that go above the consumer's own utility. For instance, less landfill waste from recyclable packaging, cleaner oceans owing to less plastic, and lower emissions from environmentally friendly manufacturing. EPE emphasises the moral and prosocial aspects of consumerism by framing purchases as assisting with larger societal goals. According to Hartmann and Apaolaza-Ibáñez (2012), environmental externalities have a positive psychological impact on customer attitudes towards green products. Nguyen, Lobo, and Greenland (2017) discovered that customers who understand such externalities are more likely to engage in pro-environmental purchasing behaviours.

In FMCG, wherein the volume of consumption magnifies tiny individual choices into substantial collective implications, EPE serves as an effective foundation for consumer-brand identification. Shabbir et al. (2020) discovered that successfully expressing EPE promotes higher green brand equity by indicating that firms are making important contributions to sustainability at scale. It is still an underexplored sector in FMCG, in which the immense number of products consumed every day indicates that even tiny changes like less plastic in packaging or the implementation of renewable energy in manufacturing yield significant positive externalities. Thus, including EPE in brand tales may significantly improve GBI.

3.4 Green Brand Image (GBI) as a Central Outcome

Green Brand Image (GBI) measures consumers' impressions of a company's environmental commitment, authenticity, and ethics. It is increasingly seen as an important component of brand equity in sustainable marketplaces. Chen (2010) defined GBI as an evaluative construct that combines multiple contextual inputs to create a cohesive perception of the brand. Empirical research emphasises its importance in affecting customer outcomes. Mahmoud et al. (2022) discovered that GBI mediates the association between eco-friendly packaging and purchase intention in FMCG, whereas Watson (2024) demonstrated that GBI has a considerable impact on brand loyalty, even in industries with fast turnover. Joshi and Rahman (2019) emphasised that customers now implement sustainability issues directly into brand assessments, underlining the increasing relevance of GBI in the context of competitive positioning.

Cultivating GBI benefits FMCG firms by increasing not just immediate purchase intentions but also long-term loyalty and brand equity. By combining EFPD, GPA, and EPE, organisations can build a compelling sustainability story that connects with customers and differentiates them in saturated marketplaces.

Research Objectives

This study aims to investigate the factors that influence Green Brand Image (GBI) in the fast-moving consumer goods (FMCG) industry. It focuses on three determinants that represent complementary parts of sustainability practices: eco-friendly product design (EFPD), green product advertising (GPA), and environmentally positive externalities (EPE). Based on the literature evaluation and research gaps identified, the aims of this research are as follows:

- Examine how eco-friendly product design affects the image of green brands in FMCG.
 Evaluate the impact of green product promotion on green brand image.
- 3. Determine the impact of favourable environmental externalities on green brand image.

Conceptual Framework and Measurement Model

The conceptual framework defines GBI as being the dependent construct, impacted by three direct predictors: EFPD, GPA, and EPE, each of which captures separate but interconnected ways via which businesses may improve their sustainability image. The framework (see figure) tests three hypothesised relationships: EFPD \rightarrow GBI, GPA \rightarrow GBI, and EPE \rightarrow GBI. All conceptions are reflectively modelled on five-point Likert scales that range from strongly disagree to strongly agree.

- GBI measures customers' opinion of a brand's environmental responsibility (e.g., "this brand maintains a positive environmental image," "this brand is committed to environmental protection").
 EFPD measures views of eco-design and packaging, such as "this product utilises environmentally friendly materials", "the packaging minimises waste", and "the product was developed for recyclability".
- GPA evaluates the conciseness, specificity, and trustworthiness of sustainability messaging (e.g., "This brand's ecological assertions are clear and particular," "The sustainable ads seem convincing and helpful," "The advertising describes meaningful ecological actions").
- EPE measures perceived ecological and social advantages (e.g., "this brand's operations benefit the natural environment across personal utilisation", "this brand assists in lowering negative impacts for society", "picking this brand aids broader climate improvement").

To guarantee content validity, products will undergo expert assessment by environmentally conscious marketing academics and practitioners, including cognitive interviews involving FMCG consumers. A pretest (n \approx 30-50) will assess clarity and reliability. Items with poor performance shall be altered or deleted to enhance overall construct assessment.

To avoid frequent technique bias, procedural measures such as anonymity, neutral item phrasing, and randomised order will be used, while statistical diagnostics (collinearity checks, inner/outer VIF, and marker-variable methods) will be used to confirm results. Measurement assessment in Smart PLS will adhere to predetermined parameters. Reliability will be evaluated using outer loadings (≥ 0.70 recommended), composite reliability, and Cronbach's alpha (> 0.70). Convergent validity will be assessed employing average variance retrieved (AVE > 0.50), whereas discriminant validity will be established utilising the HTMT ratio (≤ 0.85-0.90), the Fornell-Larcker criterion, and crossloading analysis. Weak elements may only be removed if they jeopardise construct validity breadth. The structural model validation will consist of checks for collinearity, path significance testing and model explanatory power (R2 for GBI).

Hypothesis Development

In accordance with the theoretical structure and literature review, the following three hypotheses have been suggested:

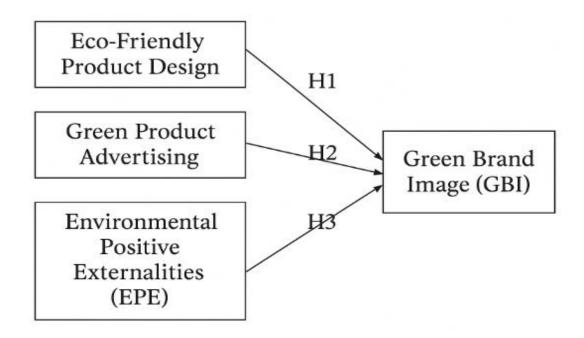
H1: There is a significant association between Eco-Friendly Product Design (EFPD) and Green Brand Image (GBI).

H2: There is a significant association between Green Product Advertising (GPA) and Green Brand Image (GBI).

H3: There is a significant association between Environmental Positive Externalities (EPE) and Green Brand Image (GBI).

By combining design, interaction, and societal benefit elements into one model, the present research offers a comprehensive empirical evaluation of the factors influencing green brand image within FMCG, improving both theoretical comprehension and practical relevance for environmentally conscious buying approaches.

RESEARCH FRAMEWORK



RESEARCH METHODOLOGY

5.1 Research Design and Context

The current research used a quantitative, cross-sectional investigation approach to empirically assess the suggested conceptual framework, which hypothesises that the Eco-Friendly Product approach (EFPD), Green Product Advertising (GPA), and Environmental Positive Externalities (EPE) will predict Green Brand Image (GBI). The element of analysis represented a consumer's review of an established FMCG brand to ensure the recall legitimacy of packaging, product design, and marketing communications.

5.2 Sample and Respondents.

Data was gathered from 380 genuine respondents, providing adequate statistical strength for PLS-SEM analysis. The findings of this research will contribute significantly to understanding how these variables network and effect consumer observations.

Furthermore, the understandings gained could advise marketers on optimising their policies to enhance brand image while encouraging sustainable practices.

5.3 Measures and Instrumentation

Data samples were obtained using a standardised questionnaire. These conceptions were reflectively modelled and assessed on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The measurements of the items were adopted from verified previous investigations (Chen, 2010; Chen & Chang, 2012; Grimmer & Woolley, 2014; Hartmann & Apaolaza-Ibáñez, 2012; Mahmoud et al., 2022).

- Green Brand Image (GBI) explains consumers' impressions of a brand's commitment to sustainability. The brand demonstrates a dedication to safeguarding the environment.
- Eco-Friendly Product Design (EFPD) involves using sustainable materials, minimising packaging, and promoting recyclable or refillable products. Brands' packaging minimises waste. Green Product Advertising (GPA) evaluates the clarity, specificity, and authenticity of green statements. The brand's advertising seems trustworthy and enlightening.
- Environmental Positive Externalities (EPE) refer to socioeconomic and ecological consequences The brand assists in minimising harmful emissions in the society.

The online survey was reviewed by sustainability and marketing experts, then administered a pilot test comprising 30 respondents to improve clarity and relevance.

Measurement Items and Sources

Construct	Item	Source
	Codes	
Eco-Friendly Product	EFPD1	Chen, Y. S., & Chang, C. H. (2013). Greenwash and green trust: The mediation
Design (EFPD)		effects of green consumer confusion and green perceived risk. Journal of
		business ethics, 114(3), 489-500.
	EFPD2	Mahmoud et al. (2022), Sustainability
	EFPD3	Prakash & Pathak (2017), Journal of Cleaner Production
	EFPD4	Chen, Lin, & Weng (2015), Sustainability
	EFPD5	Yonalia (2025), Sustainability
Green Product	GPA1	Leonidou et al. (2013), Journal of Business Ethics
Advertising (GPA)		
	GPA2	Grimmer & Woolley (2014), Journal of Marketing Management
	GPA3	Banerjee, Gulas, & Iyer (1995), Journal of Advertising
	GPA4	Reddy et al. (2023), Journal of Consumer Behaviour
	GPA5	Dahl (2010), Business Strategy and the Environment
Environmental Positive	EPE1	Hartmann & Apaolaza-Ibáñez (2012), Energy Policy
Externalities (EPE)		
	EPE2	Nguyen, Lobo, & Greenland (2017), Journal of Retailing and Consumer
		Services
	EPE3	Shabbir et al. (2020), Journal of Product & Brand Management
	EPE4	Chen (2010), Journal of Business Ethics
	EPE5	Biswas & Roy (2015), Business Strategy and the Environment
Green Brand Image	GBI1	Chen (2010), Journal of Business Ethics
(GBI)		
	GBI2	Chen & Chang (2012), Management Decision
	GBI3	Watson (2024), Sustainability
	GBI4	Mahmoud et al. (2022), Sustainability
·	GBI5	Joshi & Rahman (2019), Journal of Cleaner Production

5.4 Data Acquisition Procedures and Accountability

Participants finished the questionnaire by recognising their purchased FMCG brand and assessing it based on the measurement items. Demographic data has been collected at the conclusion. Participation was optional and confidential, with no personally relevant data collected. The study followed institutional ethical norms for people in research.

5.5 Common Method Bias Management.

To reduce typical method bias, we used both procedural and statistical measures, including anonymity guarantees, impartial phrasing, randomised item order, and separate predictor and outcome constructs. Diagnostics encompassed collinearity tests (inner VIF) and, when possible, a marker-variable procedure.

5.6 Data Analysis and PLS-SEM Setup.

Data were analysed with Smart PLS 4. Following the two-step technique, we evaluated the measurement and structural models:

Measurement Model

Table 1 Outer Loadings Table

	Table 1. Outer Loadings	
Construct	Outer loadings	Decision
EFPD1 <- EFPD	0.888	Retain
EFPD2 <- EFPD	0.842	Retain
EFPD3 <- EFPD	0.835	Retain
EFPD4 <- EFPD	0.749	Retain
EFPD5 <- EFPD	0.678	Retain
EPE1 <- EPE	0.866	Retain
EPE2 <- EPE	0.929	Retain
EPE3 <- EPE	0.893	Retain
EPE4 <- EPE	0.918	Retain
EPE5 <- EPE	0.906	Retain

GBI1 <- GBI	0.928	Retain
GBI2 <- GBI	0.912	Retain
GBI3 <- GBI	0.872	Retain
GBI4 <- GBI	0.920	Retain
GBI5 <- GBI	0.843	Retain
GPA1 <- GPA	0.870	Retain
GPA2 <- GPA	0.922	Retain
GPA3 <- GPA	0.834	Retain
GPA4 <- GPA	0.833	Retain
GPA5 <- GPA	0.761	Retain

The outer loadings of all constructions are above the suggested level of 0.70, indicating adequate indicator reliability (Hair et al., 2021). For (EFPD), indicator loadings varied from 0.678 to 0.888, suggesting excellent dependability despite one item (EFPD5 = 0.678) falling slightly short of the optimum cutoff; however, this item is accepted based on further analysis and literature, so it will not be removed from the list. (EPE) had strong loadings between 0.866 and 0.929, while (GBI) had loadings between 0.843 and 0.928, indicating strong item consistency. Similarly, (GPA) reported loadings ranging from 0.761 to 0.922, indicating a strong construct assessment. In summary, the outcomes demonstrate appropriate indicator reliability and convergent validity for each concept.

Table 2. Internal Consistency Reliability & Convergent Validity Table

Tubic 2. Internal Completency Remarking to Convergent variatey Tubic						
Construct	Cronbach's	CR (rho_a)	CR (rho_c)	Average	variance	Status
	alpha			extracted (AVE)		
EFPD	0.859	0.871	0.899	0.643		Acceptable
EPE	0.943	0.946	0.957	0.815		Acceptable
GBI	0.938	0.941	0.953	0.802		Acceptable
GPA	0.899	0.906	0.926	0.715		Acceptable

These constructs showed high internal consistency and convergent validity (Table 2). Cronbach's alpha scores varied from 0.859 to 0.943, which exceeded the 0.70 criterion, indicating acceptable internal reliability. Hair et al. (2021) found that composite reliability values for all elements were beyond 0.87, suggesting strong construct reliability. The Average Variance Extracted (AVE) values varied from 0.643 to 0.815, which is above the minimal threshold of 0.50, indicating convergent validity. Collectively, these findings corroborate the measurement model's reliability and validity for future structural research.

Table 3. Discriminant Validity (HTMT)

Construct	EFPD	EPE	GBI	GPA
EFPD				
EPE	0.724			
GBI	0.708	0.789		
GPA	0.811	0.696	0.742	

Discriminant validity was assessed employing the Heterotrait-Monotrait (HTMT) ratio (Table 3). The values of the HTMT varied from 0.68 to 0.84, falling below the cautious criterion of 0.85 (Kline, 2011) but well beyond the acceptable limit of 0.90 (Gold et al., 2001). These findings demonstrate that the constructs (EFPD), (EPE), (GBI), and (GPA) are theoretically different and devoid of multicollinearity concerns. Consequently, discriminant validity of the measurement model is successfully established.

Table 4. Discriminant Validity (Fornell-Larcker Criterion)

	Table 4. Discriminant valuity (Fornen-Larcker Criterion)				
Construct	EFPD	EPE	GBI	GPA	
EFPD	0.802				
EPE	0.660	0.903			
GBI	0.643	0.747	0.895		
GPA	0.717	0.648	0.688	0.846	

The Fornell-Larcker criteria was used for evaluating discriminant validity (see Table 4). The square roots of the Average Variance Extracted (AVE), displayed diagonally, were greater than the equivalent inter-construct correlations, indicating appropriate discriminant validity (Fornell & Larcker, 1981). The diagonal values varied from 0.802 to 0.903, which

outperformed most off-diagonal correlations. Therefore, each construct (EFPD), (EPE), (GBI), and (GPA) has a higher variation with its own independent indicators compared to other constructs, validating the measurement model's construct uniqueness.

Table 5. Path Coefficients Table and Hypothesis Testing

Path	Hypotheses	Beta	Sample	Standard	T statistics	P values	Result
		(β)	mean (M)	deviation			
EFPD ->	H1	0.116	0.120	0.059	1.953	0.051	Not
GBI							Supported
GPA ->	H2	0.293	0.293	0.048	6.085	0.000	Supported
GBI							
EPE ->	Н3	0.480	0.477	0.060	8.053	0.000	Supported
GBI							

Table 5 summarises the structural model's conclusions. The pathway from Eco-Friendly Product Design (EFPD) to Green Brand Image (GBI) was positive but not significantly significant (β = 0.116, t = 1.953, p = 0.051), indicating a weak direct impact. Environment Positive Externalities (EPE) had a significant positive influence on GBI (β = 0.480, t = 8.053, p < 0.001), suggesting that customers' attitudes towards environmental effectiveness extremities significantly improve brand image. Green product advertising (GPA) had a substantial positive connection with GBI (β = 0.293, t = 6.085, p < 0.001). Thus, our data show that EPE and GPA are important predictors of Green Brand Image, with EFPD providing a supporting but lesser contribution. Hence, H1 is not supported and H2 and H3 are supported.

Table 6. R² effect size

Construct	R-square	R-square adjusted
GBI	0.635	0.632

The model's explanatory ability was evaluated based on the coefficient of determination (R²). Table 6 shows that Eco-Friendly Product Design (EFPD), Environmental Positive Externalities (EPE), and Green Product Advertising (GPA) account for roughly 63% of the variation in Green Brand Image (GBI), with the R² value of 0.635 and an adjusted R² of 0.632. According to Chin (1998), this reflects a significant degree of predictive accuracy, demonstrating the model's great explanatory potential for green brand image construction.

Table 7. Collinearity Table (Inner VIF)

Construct	VIF	Status
EFPD -> GBI	2.377	Acceptable
EPE -> GBI	1.993	Acceptable
GPA -> GBI	2.315	Acceptable

To guarantee that collinearity could not skew the structural model, the Variance Inflation Factor (VIF) values have been established (Table 7). All inner VIF values were between 1.993 and 2.377, which is much lower than the conservative criterion of 5.0 (Hair et al., 2021). These findings demonstrate that there are no multicollinearity difficulties across the predictor constructs (EFPD), (EPE), and (GPA) for assessing Green Brand Image (GBI). precisely therefore, the structural model meets the collinearity condition and provides evidence for the path coefficient estimations' dependability.

CONCLUSION

Using PLS-SEM, this study investigated the factors that influence Green Brand Image (GBI) via the lenses of (EFPD), (EPE), and (GPA). The measuring model was very reliable and valid, including all constructs showing strong outer loadings, composite reliability, and AVE values. Discriminant validity was validated using the Fornell-Larcker **HTMT** and The structural model findings demonstrated that EPE and GPA have a considerable and positive influence on GBI, but EFPD has just a moderate effect. The model explained 63% of the variation in GBI, suggesting significant explanatory power, and all VIF values remained under acceptable ranges, indicating that there was no multicollinearity. In total, research results emphasise the critical significance of consumers'

environmental perceptions and green attitudes in establishing brand image. arguing that efficient promotion of environmental performance can be more beneficial than package design solely in nurturing a strong green brand image.

Managerial Implications

Showcase actual ecological achievements. Increase consumer trust via openness. Promote strong green attitudes. Combine design and substance. Use social media for green storytelling. cooperate with regulators and certification organisations.

Future Research Goals

Future research might investigate other mediating or moderating elements like green trust, eco-label

legitimacy, or environmental awareness to expand on the existing model. Cross-cultural or longitudinal research might additionally shed light on how young customers' green views change and impact long-term impressions of sustainable brands.

REFERENCES

- 1. Ahmed, S. M. M., & Jamil, M. (2024). The effect of green branding on consumer beliefs and purchase intentions in the FMCG sector. Journal of Social Sciences Research, 10(3), 477–489.
 - https://doi.org/10.32861/jssr.10.3.477.48
- 2. Banerjee, S., Gulas, C. S., & Iyer, E. (1995). Shades of green: A multidimensional analysis of environmental advertising. Journal of Advertising, 24(2), 21–31.
- 3. Biswas, A., & Roy, M. (2015). Green products: An exploratory study on the consumer behaviour in emerging economies. Business Strategy and the Environment, 24(7), 603–617. https://doi.org/10.1002/bse.1836
- Chakkaravarthy, K. R., & Chandramohan, S. (2022). Green marketing and brand equity of FMCG companies in India. International Journal of Management and Business Studies, 16(3), 15–22.
 - https://doi.org/10.2139/ssrn.371207033
- 5. Chen, Y.-S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. Journal of Business Ethics, 93(2), 307–319. https://doi.org/10.1007/s10551-009-0223-9
- 6. Chen, Y.-S., & Chang, C.-H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. Management Decision, 50(3), 502–520.
 - https://doi.org/10.1108/0025174121121 6250
- 7. Dangaiso, P. (2024). Leveraging green brand equity for organic food brands. Sustainability, 16(5), 1791. https://doi.org/10.1080/23311975.2024.
- 8. Elmor, L. (2024). Environmental sustainability considerations (or lack thereof) in consumer purchase decisions. Journal of Environmental Psychology, 76, 101–112. https://doi.org/10.1016/j.jenvp.2024.101
- Grimmer, M., & Woolley, K. (2014). Green marketing messages and consumer behaviour in FMCG markets. Journal of Marketing Management, 30(9-10), 974–1000. https://doi.org/10.1080/0267257X.2014. 926324
- Hartmann, P., & Apaolaza-Ibáñez, V. (2012).
 Consumer attitude and purchase intention toward green energy brands: The role of

- environmental concern and externalities. Energy Policy, 46, 550–559. https://doi.org/10.1016/j.enpol.2012.03.
- 11. Joshi, Y., & Rahman, Z. (2019). Factors affecting green purchase behaviour and future research directions. Journal of Cleaner Production, 206, 1085–1099. https://doi.org/10.1016/j.jclepro.2018.09.213
- 12. Khan, S. A. R., & Shahzad, F. (2022). Improving consumer-based green brand equity: The role of green brand attachment and green skepticism. Sustainability, 14(19), 11829. https://doi.org/10.3390/su141911829
- Leonidou, C. N., Leonidou, L. C., Fotiadis, T. A., & Zeriti, A. (2013). Resources and capabilities as drivers of hotel environmental marketing strategy: Implications for competitive advantage and performance. Tourism Management, 36, 1–12. https://doi.org/10.1016/j.tourman.2012.11.004
- 14. Mahmoud, M. A., Ali, A., & Hassan, S. (2022). Sustainable packaging in FMCG: Effects on consumer behavior and brand loyalty. Sustainability, 14(5), 3001. https://doi.org/10.3390/su14053001
- 15. Mathew, R. (2022). The influence of green marketing on brand equity in FMCG products. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.4285120
- 16. Nguyen, T. N., Lobo, A., & Greenland, S. (2017). Pro-environmental purchase behaviour: The role of consumers' biospheric values, attitudes, and externalities. Journal of Retailing and Consumer Services, 34, 18–27. https://doi.org/10.1016/j.jretconser.2016.10.002
- Prakash, G., & Pathak, P. (2017). Green marketing: A review and future research directions. Journal of Cleaner Production, 140, 186–205. https://doi.org/10.1016/j.jclepro.2016.04.082
- 18. Purba, J. K. (2022). Green orientation and customer-based brand equity in FMCG. Environmental and Climate Technologies, 26(1), 117–133. https://doi.org/10.2478/rtuect-2022-0073
- 19. Reddy, S., Rao, P., & Singh, A. (2023). Authentic green advertising in FMCG: Impacts on consumer loyalty. Journal of Consumer Behaviour, 22(4), 321–338. https://doi.org/10.1002/cb.2056
- 20. Saleem, D. (2025). The impact of green marketing on brand equity. Journal of Business and Management Research, 5(2), 45–58. https://doi.org/10.2139/ssrn.319
- Shabbir, H., Naz, S., & Ahmed, M. (2020).
 Communicating environmental externalities:
 Effects on brand equity. Journal of Product & Brand Management, 29(7), 903–917.

2321791

https://doi.org/10.1108/JPBM-06-2019-2575

- 22. Watson, J. (2024). Green brand loyalty in FMCG: Evidence from emerging markets. Sustainability, 16(1), 110. https://doi.org/10.3390/su16010110
- 23. Yonalia, K. (2025). Packaging as brand equity: The role of eco-friendly design in consumer perceptions. Sustainability, 17(2), 455. https://doi.org/10.3390/su17020455