How to Cite This Article: Ahmed, S. M. M., Zaman, S. U., & Alam, S. H. (2024). The Effect of Green Branding on Consumer Beliefs and Attitudes Toward Eco-Conscious Purchases. *Journal of Social Sciences Review, 4*(4), 281-299.
https://doi.org/10.62843/jssr.v4i4.477

Volume 4, **Issue** 4 (Fall 2024)
Pages: 281–299
ISSN (Online): 2789-4428
DOI: 10.62843/jssr.v4i4.477
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JOURNAL OF SOCIAL SCIENCES REVIEW (JSSR)

The Effect of Green Branding on Consumer Beliefs and Attitudes Toward Eco-Conscious Purchases

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Abstract: In today's world, people view companies as more than profit-driven organizations; there is an expectation from businesses to promote sustainable practices and improve the well-being of society. As a result, FMCG companies are rapidly embracing green branding initiatives to market environmentally sustainable products and encourage environmentally friendly consumption. This study aims to examine the effect of green branding, brand image, and green packaging on consumer green purchase intentions and the mediating effect of green brand image and environmental beliefs. Data from 285 survey participants were analyzed using Structural Equation Modeling (SEM). It is revealed that green packaging and branding affect consumer reaction positively; there is increasing green purchase intention, brand image effect, perceived value, and eco-concern are mediators between awareness and action. These results are important for policymakers and firms looking to encourage sustainable consumer behavior through effective green marketing.

Keywords: Green Marketing Strategies, Green Branding, Green Purchase Intentions, Sustainability Marketing, Consumer Behavior, Eco-Conscious Consumers, Sustainable Packaging

Introduction

Green branding is now crucial as environmental concerns rise (Nurapni et al., 2024). With increased climate change and pollution, industries also recognize that they must follow sustainability trends that represent consumer values (J, 2023). Green branding has become a key marketing strategy to make products and services more eco-friendly (Munir et al., 2020). It reflects the commitment of a company towards sustainability that affects the feelings and actions of consumers (Majeed et al., 2022). This knowledge has altered the landscape of consumerism, from green branding to mindset and purchase intention (Kim & Lee, 2023). According to the research, there is a strong positive correlation between sustainability and customer trust, satisfaction, and retention (Majeed et al., 2022).

Once a niche topic, green marketing has become a core business strategy. It is a challenge for companies to balance profitability and environmental changes (Gidado & Babakura, 2019). Green branding signals eco-friendliness and attracts environmentally-driven customers (Dutta, 2014). The CSR and brand identity checklist now includes sustainability as pollution and waste become visible (J, 2023; Martínez & Bosque, 2024). Consequently, firms can offer green products to appeal to consumers with such beliefs (Lee & Chen, 2019). Green branding has a strong impact on purchase intent because consumers prefer environmentally conscious brands (Yalcin et al., 2021).

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Millennials and Gen Z are pushing the transition to ethical and sustainable consumption (Kernan, 2023). They look for eco-friendly products, evaluate corporate sustainability messages and leverage social media to express their views (Miller et al., 2017). Older generations are still more price and convenience-motivated (Morrison & Beer, 2016). Further, women offer strong potential as they are more likely than men to pay for sustainable goods (Shrestha, 2018). Moreover, the group of SEC higher, with correlation of social capital, education, and income level, affect green purchase behavior directly (Zhang & Dong, 2020).

Due to the increasing demand for sustainable products, green branding has become imperative for business success. Therefore, it is important to understand this process of how green branding influences consumers' perceptions and purchase intentions (Dutta, 2014). Eco-labels and green marketing have been paid much attention, however, not at all related to their implementation onto consumer behavior depending on different elements such as price, and convenience (Majeed et al., 2022; Magnier & Schoormans, 2015) The environmental values (personal) and external persuasion (perceived effectiveness of the company's green efforts) create the attitudes, which need to be influenced on green products (Wahyuningsih, 2020).

While sustainability is appealing, green initiatives are difficult to execute (J, 2023). FMCG companies also need to pay a higher cost for eco-materials in addition to consumer doubts and lack of knowledge of the benefits of sustainability (Nordin & Selke, 2010). Consumers also doubt exaggerated eco-claims, fearing "greenwashing" (Magnier & Schoormans, 2015). Obtaining sustainable material for production or re-designing for packaging or Reverse Logistics have operational and financial challenges (Larsson et al., 2012). Moreover, the diverging regulations among all markets are a hurdle for green measures (Jassim et al., 2020).

One of the biggest difficulties faced by FMCG companies is creating a balance between green branding and profitability. Although awareness surrounding sustainability is on the rise, many consumers do not act upon their concerns through purchases (Lim et al., 2013 Yet there is a gap between the intention to purchase and the actual purchase behaviour—driven by price sensitivity, lack of knowledge and scepticism about green claims (Fa et al., 2024; Keni et al., 2020). Bridging this gap requires better green branding approaches that transform awareness into action (Zhang & Dong, 2020; Ha, 2020).

The use of social media enables FMCG companies to reach target consumers directly and promote green products (Jalali & Khalid, 2021). Social media platforms (e.g., Instagram and Facebook) influence consumer perceptions to a greater extent in younger consumers than in others (Dhingra, 2023). By storytelling, brands can create trust and establish a community-driven green identity (Rahman et al., 2019). Digital engagement not only provides consumers with knowledge about the environmental impact of their choices but also fosters this association between a green brand and purchase intent (Ovodenko et al., 2020).

Literature Review

This relationship between green branding, consumer perception, and purchase intention has yet to be understood for many businesses seeking to effectively market products that preserve the environment. Green branding is for organizations that emphasise the environmental benefits of the products or services. They do this by leveraging different branding and communication tactics to highlight the ecological advantages of their items (Majeed et al., 2022). To differentiate themselves in a competitive market, companies are adopting green branding by embedding eco-labelling, sustainable packaging, and corporate sustainability commitment into their marketing strategies (Chen & Chang, 2019).

Now that sustainability is slowly becoming a part of corporate strategy, people know a lot more about environmental issues. So, consumers are now more conscious and prefer brands that adopt eco-friendly practices (Majeed et al., 2022). Consumers increasingly associate green branding initiatives such as eco-labelling, sustainability certifications, and corporate environmental responsibility campaigns with ecological responsibility; these branding techniques enhance consumer trust and influence purchase behaviour (Zhu et al., 2022).

However, despite the increasing impact of environmental issues on our lives, there is a glaring discrepancy between what consumers say about their environmental attitudes and their purchasing patterns. The 'attitude-behaviour gap' refers to the situation where consumers do not follow through on purchasing environmentally friendly products despite their positive attitudes toward them (Peattie, 2001). Despite consumers demonstrating an obvious demand for sustainable products, their finite means and the belief that performance is generally sacrificed for the sake of sustainability land this kind of product range within a price-sensitive category (Rahman et al., 2023).

Theory of Planned Behavior (TPB)

The theory of Planned Behavior (TPB) by Ajzen (1991) accounts for consumer green product intentions through the three constructs: Attitudes (positive or negative towards behaviour), Subjective Norms (social norms influencing behaviour), and Perceived Behavioral Control (perceived control to participate in behaviour). TPB green branding emphasizes green consciousness and company messages influencing buying intentions (Majeed et al., 2022). Recent developments entail environmental issues as predictors of intentions and attitudes, and hence TPB is more applied in green consumer buying behaviour (Thøgersen et al., 2022).

Elaboration Likelihood Model (ELM)

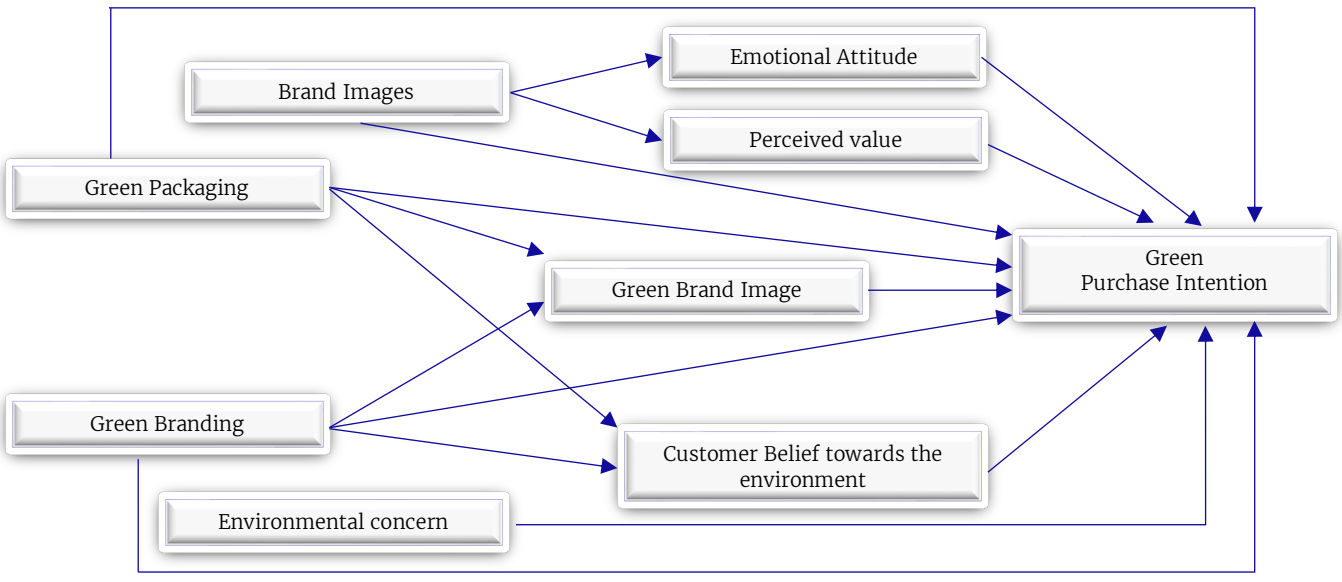
Petty and Cacioppo's (1986) Elaboration Likelihood Model (ELM) accounts for consumer persuasion via two pathways: Central Route, in which engaged consumers analyze statements of sustainability in depth, resulting in stronger attitudes and stronger purchase intentions (Macht et al., 2019), and Peripheral Route, in which less engaged consumers use cues such as packaging or celebrity endorsements, which might not influence long-term action (Puspadewi & Sugandini, 2024). In green branding, deeply engaged consumers reflect on sustainability programs in depth, whereas others react to surface green messages (Zhu et al., 2022).

Consumer Decision Process Model (CDP)

The Consumer Decision Process (CDP) Model (Blackwell et al., 2006) describes buying behavior in five phases: Problem Recognition (acknowledging the necessity of environmentally friendly products), Information Search (procuring sustainability information), Evaluation of Alternatives (brand comparison of green characteristics), Purchase Decision (selecting a product on the basis of environmental and self-value), and Post-Purchase Behavior (satisfaction influencing further purchases). Green consumers conduct thorough information searches prior to buying environmentally friendly products. CDP explains how green branding affects each step of the process (Majeed et al., 2022).

Figure 1

Research Framework (Majeed et al., 2022; Fa et al., 2024; Duarte et al., 2024).



Brand Image and Perceived Value

A strong brand image enhances customers' value perception by communicating quality and reliability (De Goey et al., 2019; Fa et al., 2024). Design-led innovations generate surplus value above the inherent product benefits (De Goey et al., 2019). Sustainability and beautiful brands enhance perceptions of higher performance and environmental cause commitment (Majeed et al., 2022). In addition, a positive brand image reduces uncertainty, thus enhancing perceived benefits (Majeed et al., 2022). Past research has established the relationship between brand reputation and higher perceived value (Fatmawati & Alikhwan, 2021), highlighting that effective branding not only generates attention but also improves product evaluation (Fa et al., 2024).

H1: *Brand image positively influences perceived value.*

Brand Image and Emotional Attitude

A good brand reputation is a top driver of customers' emotional response. Visual content that clearly demonstrates sustainability instils confidence and admiration, thus furthering emotional connection (Morris et al., 2002). Positive previous experience with eco-friendly brands facilitates attachment and initiates repeat buying (Balaskas et al., 2023). Green branding strategies employed in the present foster emotional attachments, reinforcing overall brand attitude (Fa et al., 2024).

H2: *Brand images positively influence emotional attitude.*

Perceived Value and Green Purchase Intention

Perceived value refers to consumers' likelihood of choosing eco-friendly offerings that provide significant functional and emotional advantages compared to price (Fa et al., 2024), spurring green purchase intention. This shows that the perception of higher value increases the willingness to pay more for green substitutes. This is consistent with consumer behaviour theories that connect the perception of value to commitment (Mullet & Karson, 1985). Research studies have affirmed that communicating a product's green value proposition encourages consumers' intention to buy (Fatmawati & Alikhwan, 2021).

H3: *Perceived value positively influences green purchase intention.*

Emotional Attitude and Green Purchase Intention

A good emotional status helps consumers to engage in sustainable consumption behaviors (or green purchase intention) because trust and satisfaction promote green consumption (Majeed et al., 2022). Repeat consumption of the products occurs from positive experiences with the product (Cyders & Smith, 2008). Intense emotion, mediated by a more positive attitude toward the purchase, overcomes a purchase intention test (Fa et al., 2024). Past literature supports that emotional cohesion is a strong indicator of intent to buy (Juodeikiene et al. 2018).

H4: *Emotional attitude positively influences green purchase intention.*

Brand Images and Green Purchase Intention

Previous research shows that a strong eco-oriented brand image directly motivates consumers to purchase products that are green (Majeed et al., 2022). Consumers who are high on environmental concerns tend to choose brands that have sustainability cues (Ahmed et al., 2022). Moreover, a clearly defined green brand image minimizes uncertainty for consumers and serves as a heuristic in the decision-making process (Ahmed et al., 2022). Additionally, a positive brand image signals more reliability and quality of goods , which indicates a higher purchase intent (Fa et al., 2024). However, consumers are dependent upon their image perception of a brand in making sustainable purchase decisions (Fa et al., 2024). Previous research also highlights the importance of brand image as a direct driver of consumer behaviour (Fatmawati & Alikhwan, 2021).

H5: *Brand images have a direct positive effect on green purchase intention.*

Green Packaging and Green Purchase Intention

Sustainable packaging is of critical importance for eco-conscious consumers (Majeed et al., 2022). It is an indication of environmental friendliness, making consumers ready to pay a premium. Transparent eco-

packaging mitigates perceived risk and strengthens purchase intention (Ahmad et al., 2022). Green packaging helps brands stand out in competitive markets and signals the product's eco-friendliness (Fa et al., 2024). Based on earlier research, it is confirmed that most green purchase behaviour is directly affected by eco-friendly packaging (Majeed et al., 2022).

H6: *Green packaging has a positive direct effect on green purchase intention.*

Green Branding and Green Purchase Intention

Effective communication of environmental commitment through green branding improves purchase intention. Further, green messaging enhances consumer trust and purchase intentions (Majeed et al., 2022). This significantly contributes to consumers' intention to purchase sustainable products (Ahmed et al., 2022) as it reduces uncertainty regarding quality and environmental impact (Fa et al., 2024) and influences eco-friendly brand narratives to an important extent. Green brand identity is one of the driving factors of green purchase behaviour (Fatmawati & Alikhwan, 2021).

H7: *Green branding has a positive direct effect on green purchase intention.*

Green Packaging, Green Brand Image and Green Purchase Intention

A prior study uncovers that a positive green package evokes a positive green brand image, which ultimately influences the buying intention (Majeed et al., 2022). It also strengthens brand perception by serving as an informational cue, associating quality with environmental responsibility (Ahmad et al., 2022). The mediation will be an important process of between green brand image (Fa et al., 2024). Efforts such as green packaging have helped to enhance a company's brand image, which in turn increases purchase intention through reduced ambiguity (Fa et al., 2024). Previous studies proved that a positive brand image based on green packaging could influence purchasing behaviour (Fatmawati & Alikhwan, 2021).

H8: *Green brand image mediates the relationship between green packaging and green purchase intention.*

Green Branding, Green Brand Image and Green Purchase Intention

Green branding can enhance a brand's green identity, positively impacting its sustainable image and purchase intention. Effective communication of eco-friendly attributes enhances brand perception (Majeed et al., 2022) and strengthens associations with quality and environmental responsibility (Ahmad et al., 2022). The green brand image plays a contrasting and significant mediation role (Fa et al., 2024) as it lowers uncertainty and reduces risk for the eco-conscious consumer (Fa et al., 2024), resulting in higher purchase intention. Branding of green becomes a starting point to build a good green brand image which leads the consumer purchase behavior (Fatmawati & Alikhwan, 2021).

H9: *Green brand image mediates the relationship between green branding and green purchase intention.*

Green Packaging, Customer Beliefs Toward the Environment and Green Purchase Intention

Various studies suggest that green packaging affects customer perceptions of a firm's effort to protect the environment, which can form purchase intention (Majeed et al., 2022). Sustainable packaging cues support consumers in interpreting products as environmentally friendly, underpinning pro-environmental beliefs (Ahmad et al., 2022; Petkowicz et al., 2024). These beliefs serve as mediators as they lower perceived risk and enhance sustainability signals (Fa et al., 2024; Ahmad et al., 2022) that connect green packaging with purchase intent. The attitudes toward green products are one of the main factors that have a significant impact on green purchase behaviour (Han et al., 2010).

H10: *Customer beliefs toward the environment mediate the relationship between green packaging and green purchase intention.*

Green Branding, Customer Beliefs toward the Environment and Green Purchase Intention

Green branding directly affects consumer consciousness toward a company's environmental commitment, thereby bridging the intent to make sustainable purchases (Majeed et al., 2022). Through ongoing green-driven branding, customers' environmental beliefs enhance their purchase intentions (Ahmad et al., 2022; Fa et al., 2024). The mediating belief among customers remains the most common mechanism linking

green branding and consumption behaviour (Ahmad et al., 2022). More importantly, beliefs about a green campaign by the brand are needed to support sustainability in purchasing activities (Fatmawati & Alikhwan, 2021).

H11: *Customer beliefs toward the environment mediate the relationship between green branding and green purchase intention.*

Environmental Concern and Green Purchase Intention

An increased level of environmental concern positively predicts green purchase intention (Majeed et al., 2022). Green consumers buy green products and consciously seek alternatives with lower environmental impact (Ahmad et al., 2022; Petkowicz et al., 2024). Environmental concern reinforces other drivers of green purchasing by creating a proactive mindset, compelling consumers to implement sustainable values in everyday life (Fa et al., 2024). Previous research supports its pivotal role in enabling green purchase behavior (Duarte et al., 2024).

H12: *Environmental concern positively influences green purchase intention.*

Conceptualization

The integration of theoretical models has been found to be important in capturing green branding, attitudes towards consumers, and purchase intentions. Theoretical models like the Theory of Planned Behavior (TPB) (Ajzen, 1991) and the Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1986) have analyzed the social and psychological factors that influence sustainable consumption behavior. However, most of the studies examine constructs individually by ignoring the mediators and moderators (Majeed et al. 2022; Rahman et al. 2023). Besides, more sophisticated models considering other factors such as consumer trust, perceived value, price sensitivity, and brand credibility may provide a more powerful explanation of the green branding and purchase intentions relationship through mediated green brand image and environmental beliefs (Zhu et al., 2022).

Methodology

Research Design and Approach

This study was conducted using a quantitative research design and approach, which allows for the measurement of relationships between variables in a structured manner. Hence, a cross-sectional survey design was adopted since large data can be statistically analysed and results can be generalised, which facilitates the assessment of whether consumer behaviour is related to sustainable products (Simmons & Brown, 2021). A structured survey was utilized to efficiently acquire consumer attitudes, perceptions, and behaviours while maintaining reliability and validity (Chavez et al., 2023). The survey method is the best fit for gathering customers' physical fine-tuning knowledge of environmental sustainability and green brands (Majeed et al., 2022).

Survey Instrument and Pilot Study

A structured questionnaire embodying metrics of primary variables and measurement items towards developing green branding, customer belief and brand image was conducted with closed-ended questions on a five-point Likert scale to measure attitudes towards purchase intentions (Jones & Nguyen, 2021). The first included demographic information, while the other section had the items of other constructs of the model (Majeed et al., 2022). The first part gathered demographic information such as age, sex, level of education, and employment status, while the other part investigated consumer perceptions of environmentally friendly products as well as an intention to buy "green" products (Brown & Thompson, 2020). A pilot study was performed to test the reliability and validity of the instrument, where 50 persons participated. It helped get participants' feedback, which provided critical refinements prior to the wide-scale rollout (Chavez et al., 2023). Reliability analysis for the questionnaire was done by utilizing the internal consistency measure, Cronbach's Alpha (Khan et al., 2022).

Sampling and Data Collection

The study focused on individuals aged 18 and older who were somewhat aware of green branding and sustainable products. Due to being cost-effective, efficient, and allowing for the collection of large-scale

data sets in a short period of time with low resource allocation, we derived to a convenience sampling technique (Simmons & Brown, 2021). The final questionnaire was shared in printed forms and electronically through Google Forms and social media channels for a wider reach and better participation (Majeed et al., 2022). To ensure participants onboard and participate easily, data was collected through an online survey. Participants from various backgrounds were included to enumerate the generalizability of the results (Khan & Ali, 2021). To measure consumer perceptions related to pricing, packaging, brand trust, satisfaction, purchase intention and purchase behaviour, widely accepted formats like the five-point Likert scale have been adopted in the questionnaires (Fahira & Djamaludin, 2023).

Data Analysis, Validity and Measurement Constructs

Data analysis was performed using SmartPLS 3, a widely used software for survey-based research in the social and management sciences. Descriptive statistics were used to summarize participant responses, whereas inferential statistics were applied to explore the relationships between the constructs (Khan et al., 2022). Majeed (2022) analyzed causal relations between green branding and consumer perceptions as well as their purchase intentions using Structural Equation Modeling (SEM). Hypotheses were tested through bootstrapping through the 5000 resamples, and the path coefficients were evaluated alongside the reliability and validity tests using the Consistent PLS Algorithm (Hair et al. 2018). In order to confirm measurement constructs, the survey instrument was sourced from established scales found in the literature (Majeed et al., 2022; Duarte et al., 2024; Fa et al., 2024). To validate measurement constructs, the survey instrument was adopted from validated scales available in the literature (Majeed et al., 2022; Duarte et al., 2024; Fa et al., 2024). Questionnaire validity was reviewed by consulting experts in marketing and sustainability research to ensure that all items on the survey were relevant and properly designed (Chavez et al., 2023).

Results and Findings

A total of 285 valid responses were obtained and analyzed to understand the demographic distribution of the study population. Descriptive statistics reveal the sociodemographic characteristics of the respondents, such as age, gender, education and employment status. Table 1 provides sociodemographic information of respondents.

Table 1

Sociodemographic Characteristics of Respondents

Items	Category	Frequency (n=285)	Percentage (%)
Age (years)	20 or below	55	19.3
	20-30	152	53.3
	31-40	32	11.2
	41-50	17	6.0
	50 or above	29	10.2
Gender	Male	189	66.3
	Female	96	33.7
Education Level	College or Less	52	18.2
	Bachelors	134	47.0
	Master	83	29.1
	MPhil	11	3.9
	PhD	5	1.8
Employment Status	Student	115	40.4
	Self-Employed	20	7.0
	Employed	113	39.6
	Unemployed	17	6.0
	Retired	20	7.0

The sociodemographic profile illustrates the diversity and realism of the respondents that ensures an even spread across various demographic variables to complete a more generalizable and robust findings (Cochran, 1977).

Reliability and Validity Analysis

Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) were used for reliability and convergent validity tests to estimate the internal consistency of the different constructs encompassed in the research. AVE measures the amount of variance captured by the construct relative to the variance due to measurement error. The acceptable threshold for Cronbach Alpha's and CR is 0.70 or higher, and for AVE, it should be 0.50 or above (Fornell & Larcker, 1981). The values for each construct are presented in Table 2.

Table 2

Constructs Reliability and Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
BI	0.803	0.804	0.581
CB	0.830	0.833	0.629
EA	0.760	0.760	0.515
EC	0.781	0.781	0.544
GBI	0.836	0.839	0.635
GB	0.786	0.790	0.558
GP	0.758	0.754	0.512
GPI	0.775	0.781	0.545
PV	0.842	0.843	0.642

Internal consistency was first assessed using Cronbach's alpha and composite reliability. Both metrics exceeded the recommended threshold of 0.70 for all constructs, indicating that the items within each construct consistently measure the same underlying concept. Taking the example of the Brand Image construct, it has a Cronbach's Alpha of 0.803 and Composite Reliability of 0.804. This really shows a very high level of reliability (Jöreskog, 1971). Convergent validity was also examined using the Average Variance Extracted (AVE). All constructs in the model achieved AVE values above the required value of 0.5. (Fornell & Larcker, 1981).

Overall, all constructs of the measurement model exhibited good reliability and satisfactory convergent validity. These results prove that items indeed record their latent bases and research models and are ready for structural analysis.

Discriminant Validity – Heterotrait-Monotrait (HTMT) Ratio

The Heterotrait-Monotrait (HTMT) ratio was used to assess discriminant validity. HTMT compares the ratios of correlations with constructs to assess the conceptual distinctiveness within the framework of the reported data. Construct reliability with a threshold value of 0.85 is deemed acceptable, which ensures that constructs are not nearly collinear and measure different underlying concepts (Henseler et al., 2015).

Table 3

HTMT Ratio for Discriminant Validity

	BI	CB	EA	EC	GBI	GB	GP	GPI	PV
BI									
CB	0.494								
EA	0.706	0.374							
EC	0.428	0.712	0.516						
GBI	0.601	0.563	0.544	0.615					
GB	0.466	0.575	0.431	0.535	0.759				

	BI	CB	EA	EC	GBI	GB	GP	GPI	PV
GP	0.342	0.517	0.415	0.647	0.682	0.786			
GPI	0.523	0.661	0.386	0.792	0.684	0.68	0.664		
PV	0.542	0.447	0.61	0.52	0.728	0.678	0.727	0.585	

As shown in the HTMT results table, all HTMT ratios were less than the threshold of 0.85 indicating that the constructs possess acceptable discriminant validity and represent different theoretical concepts (Henseler et al., 2015).

It was verified that the questionnaire has high internal consistency as well as strong constructs reliability and validity. Cronbach's Alpha and Composite Reliability values were above cut-off levels, indicating reliability. Convergent validity was demonstrated since the AVE values were all greater than 0.50. Additionally, the HTMT ratios were below 0.85, demonstrating that the constructs maintain appropriate discriminant validity. VIF values were also analyzed and are well below the critical threshold of 5, confirming that there are no multicollinearity issues in the model overall. These findings indicate that the instrument is suitable for full-scale data collection and further statistical analysis.

Structural Model Evaluation

The structural model was evaluated using bootstrapping, and standardized path coefficients, t-statistics, and p-values for the hypothesized relationships were obtained. The results for the direct effects are presented in Table 4.

Table 4

Significance of Path coefficients

	Original Sample (O)	Sample Mean (M)	(STDEV)	T Statistics	P Values
BI → EA	0.553	0.554	0.038	14.424	0.000
BI → GPI	0.154	0.152	0.05	3.061	0.002
BI → PV	0.452	0.453	0.049	9.25	0.000
EA → GPI	-0.127	-0.123	0.054	2.361	0.018
EC → GPI	0.354	0.352	0.048	7.317	0.000
GB → GPI	0.146	0.147	0.06	2.448	0.014
GP → GPI	0.231	0.234	0.053	4.382	0.000
PV → GPI	0.268	0.267	0.064	4.18	0.000

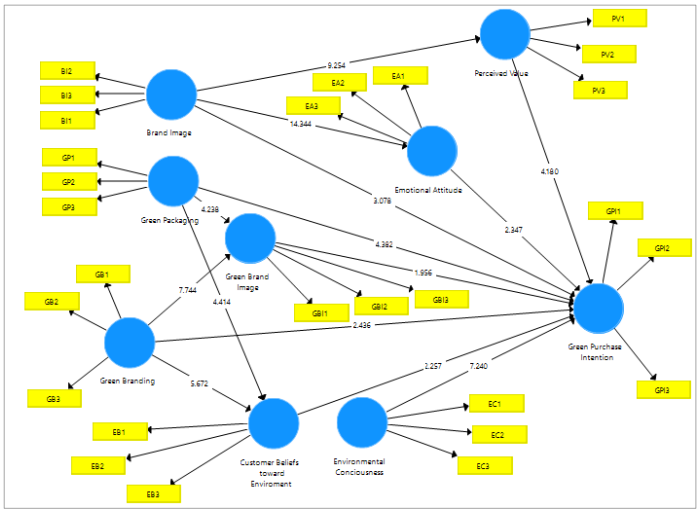
The results indicate that the direct effect of BI on PV (H1) is significant with a coefficient of 0.452, a t-statistic of 9.250, and a p-value less than 0.001, confirming that Brand Image positively influences Perceived Value. Similarly, BI has a significant positive impact on EA (H2) as evidenced by a coefficient of 0.553 ($t = 14.424$, $p < 0.001$). Further, the direct effect of PV on GPI (H3) is statistically significant (coefficient = 0.268, $t = 4.18$, $p = 0.001$), indicating that Perceived Value can directly predict Green Purchase Intention (Nitzl, 2016).

Notably, the relationship between EA and GPI (H4) is significant; however, the negative coefficient of -0.127 ($t = 2.361$, $p = 0.018$) contradicts the hypothesized positive effect, suggesting that higher Emotional Attitude may be associated with lower Green Purchase Intention. Additionally, BI exerts a significant direct effect on GPI (H5) with a coefficient of 0.154 ($t = 3.061$, $p = 0.002$) (Nitzl, 2016).

The analysis further reveals that GP's direct effect on GPI (H6) is significant (coefficient = 0231, $t = 4.382$, $p = 0.001$), further GB shows a significant positive influence on GPI (H7) with a coefficient of 0.146 ($t = 2.448$, $p = 0.014$). Finally, EC is a strong predictor of GPI (H12) with a significant coefficient of 0.354 ($t = 7.317$, $p < 0.001$) (Nitzl., 2016).

Figure 2

SEM Model of the Study



These findings demonstrate that while BI is a key driver for both PV and EA and has a direct positive effect on GPI, not all hypothesized relationships are supported. Specifically, the direct effect of PV on GPI is non-significant, and the relationship between EA and GPI is significant but in an unexpected negative direction. Moreover, GP does not have a significant direct effect on GPI, while GB and EC are important predictors of Green Purchase Intention (Nitzl, 2016).

Coefficient of Determination

The structural model's explanatory power was assessed using R-square (R^2) and adjusted R-square (R^2 adj.) values. These metrics indicate the proportion of variance explained by the independent variables while accounting for model complexity. The results are presented in Table 5.

Table 5

Coefficient of Determination (R^2 Values)

Endogenous Construct	R Square	R Square Adjusted
CB	0.354	0.351
EA	0.491	0.49
GBI	0.59	0.588
GPI	0.774	0.769
PV	0.296	0.294

The model explains a substantial proportion of variance in key constructs. Notably, Green Purchase Intention shows an R Square of 0.774 (Adjusted R Square of 0.769), indicating that over 77% of the variability in consumers' intention to purchase green products is accounted for by the predictors in the model. This high value suggests that the combined effect of the antecedents (including brand-related factors, environmental consciousness, and other mediators) is particularly influential in shaping purchase intentions (Raithel et al., 2012).

Overall, the high R Square values for Green Purchase Intention and Green Brand Image highlight the strong predictive power of the model in explaining the determinants of green consumer behavior, thereby supporting the theoretical framework underpinning the study (Raithel et al., 2012).

Mediation Analysis

The mediation analysis of the hypothesized relations was performed to examine the specific indirect effects, assessing the presence and strength of mediation relationships. By analyzing these indirect effects, the model evaluates whether the mediator significantly transmits the influence of the independent variable on the dependent variable. The results are presented in Table 6.

Table 6

Specific Indirect Effects

Relationships	Original Sample (O)	Sample Mean (M)	(STDEV)	T Statistics	P Values
GB → CB → GPI	0.043	0.043	0.021	2.028	0.043
GP → CB → GPI	0.030	0.030	0.015	2.012	0.044
GB → GBI → GPI	0.137	0.138	0.040	3.399	0.001
GP → GBI → GPI	0.192	0.192	0.049	3.887	0.000

The mediation analysis reveals that the indirect effect of Green Branding on Green Purchase intention through Customer Beliefs toward the Environment (H11) is significant, with an original sample value of 0.043 (t = 2.028, p = 0.043). Likewise, the mediation effect of Green Packaging on Green Purchase Intention via Customer Beliefs (H10) is significant (original sample = 0.030, t = 2.012, p = 0.044). These results support the role of Customer Beliefs as a mediator in the model (Nitzl., 2016).

Further, the mediation paths via Green Brand Image also show strong statistical significance. The indirect effect of Green Branding through Green Brand Image (H9) shows an original sample value of 0.137 (t = 3.399, p = 0.001), and that of Green Packaging through Green Brand Image (H8) is 0.192 (t = 3.887, p = 0.001). These p-values suggest statistical significance, suggesting that green brand image does serve as a robust mediator in these relationships (Nitzl., 2016).

Although significant, these conclusions provide key knowledge regarding the indirect routes impacting individual consumers purchasing behavior under the umbrella of green marketing (Nitzl., 2016). The summary table for all the hypotheses, along with the results and their status based on this research analysis, is presented in Table 7.

Table 7

Hypotheses Testing Summary

Hypothesis	Path Description	Status
H1	BI → PV	Supported
H2	BI → EA	Supported
H3	PV → GPI	Supported
H4	EA → GPI	Not Supported
H5	BI → GPI	Supported
H6	GP → GPI	Supported
H7	GB → GPI	Supported
H8	GP → GBI → GPI	Supported
H9	GB → GBI → GPI	Supported
H10	GP → CB → GPI	Supported
H11	GB → CB → GPI	Supported
H12	EC → GPI	Supported

The table 7 shows that H1, H2, H3, H5, H7, H8, H9, H10, H11, and H12 are supported by the data. While the model highlights that H4 is not supported still, its paths are statistically significant. Further, it has a negative coefficient, which is contrary to the hypothesized positive effect. The mediation effects via Green Brand Image (H8 and H9) reach significance, whereas the mediation effects via Customer Beliefs toward Environment (H10 and H11) are also significant.

Limitations of the Study

Despite of the extensive scope of the study, there are a number of limitations should be taken into account. The use of a non-probability convenience sampling design can disturb generalizability (Etikan et al., 2016). As the respondents were largely recruited through social networking platforms such as WhatsApp, Facebook, and LinkedIn, there is potential for sample bias, and likely underrepresentation of respondents with less wealthy or rural backgrounds (Couper, 2017). Moreover, the use of self-report data brings social

desirability bias as participants are likely to have synchronized responses with socially desirable opinions instead of actual behaviour (Podsakoff et al., 2003).

Although the pilot study of 50 respondents was useful for refining the questionnaire, the small sample size may not have captured all the issues of survey clarity and reliability. The cross-sectional design is also a limitation, as it collects data at one point in time and therefore misses variations in consumer attitudes that longitudinal research might shed more light upon (Ployhart & Vandenberg, 2010). The study also did not consider consumer attitudes in the absence of an in-depth analysis of external variables such as economic conditions, government policy, or competitive marketing campaigns that are globally known to affect green purchasing behaviour significantly (Joshi & Rahman, 2015). Lastly, the online survey questionnaire elicited a majority of responses from urban, educated, and tech-savvy respondents, who may have overlooked rural residents or those with minimal internet access (Smith, 2018).

Discussion and Conclusion

This study is helpful in the literature on green consumer behaviour with respect to the impact of brand image, perceived value, emotional attitude, green packaging, green branding and environmental concern on green purchase intention. While the impact of eco-labelling, green packaging, and branding on purchase intention has been previously documented (Majeed et al., 2022), this study provides an extended view. This indicates that brand image is a significant contributor to the positive impact on perceived value and emotional attitude and has a direct positive impact on green purchase intention, replicating similar outcomes found from the role of trust in the brand and brand loyalty to support sustainable consumption (Chen et al., 2010; Duarte et al., 2024).

The difference is that the traditional brand image refers to consumers' representation of a company, while the green brand image is about sustainability and commitment to the environment (Delgado-Ballester & Munuera-Aleman, 2005). The findings indicate that the identity of a brand that integrates green attributes has a greater influence on green purchase intention, emphasizing the importance of sustainable branding (Chen et al., 2010; Tan et al., 2022). Another key theme is perceived value, reinforcing earlier studies indicating that consumers judge green products not only as ethical symbols but for their real value (Fa et al., 2024). The results suggest that consumer environmental beliefs mediate the effect of green packaging and branding on purchase intention and support the role of cognitive environmental credibility (Duarte et al., 2024).

The negative correlation between emotional attitude and green purchase intention is a notable finding. Although past research indicates a positive association (Fa et al., 2024), the findings suggest that if the emotional cue is exaggerated and literal green properties are absent, the main effect might be counterproductive and lead to scepticism and lower purchase intention. This is consistent with the "value-action gap" in sustainable consumption where consumers with strong attitudes do not necessarily act upon these attitudes due to conflicting rational considerations (Vermeir & Verbeke, 2006).

Green packaging, green branding, and environmental concern were found to be positive significant predictors of green purchase intention. Green branding proves to be an effective means of transmitting sustainability initiatives of a brand to distinguish itself from its rivals (Majeed et al., 2022), whereas environmental concern has been found to bolster consumers' motivation towards sustainable decisions (Fa et al., 2024; Duarte et al., 2024). Among others, mediation analysis reveals that consumer environmental beliefs act as an influential predictor that mediates the relationship between green packaging, branding, and purchase intention, supporting the notion that green marketing messages have to undergo cognitive processing. These findings corroborate studies supporting integrative focus regarding green marketing as an umbrella concept which comprises cognitive, affective, and ethical factors leading to sustainable consumption orientation (Namkung & Jang, 2017; Yadav & Pathak, 2017).

The implications of the current findings concern, from a theoretical perspective, supporting the Understanding of the Theory of Planned Behavior (TPB) and the Elaboration Likelihood Model (ELM). A purchase intention can be determined by cognitive evaluations and emotional responses, as demonstrated in the case of brand image, perceived value, and environmental beliefs (Ajzen, 1991). Furthermore, ELM

elucidates the systematic processing of green marketing messages and how it leads to greater trust, increased likelihood of purchase, and higher purchase intention.

From a practical viewpoint, these insights are vital for FMCG brands seeking to ingrain sustainability into their role and message. Authenticity is key; green claims should be backed by third-party certifications and transparent reporting to earn trust. In light of this evidence, marketers should indicate environmental benefits in their messaging to strengthen the cognitive and emotional involvement of consumers. Accurately communicating what a brand is doing for the environment can create a stronger relationship with consumers and broaden the market for green products.

In summary, this research demonstrates the ongoing significance of green branding and its influence on consumer behavior and choice. A properly designed green brand identity can help not only improve perceived value but also help a company increase emotional ties, resulting in an increase in green purchase intention, especially when paired with proper communication and genuinely sustainable practices.

Future Research Directions

This study should be followed by future research to examine the core elements of green branding and consumer behavior (Ghazali et al., 2023). One primary area of research that future studies may touch upon is regarding the enduring consequences of green branding on brand equity, consumer loyalty, and repurchase (Yang et al., 2024). Such longitudinal studies would be suitable to test the relationship between longer exposure to green marketing practices on green purchase intention and purchase behaviour in the longer term (Osuagwu, 2023). So, by seeing how consumers actually behave longer term in light of green branding, we can at least know whether green purchase intentions last and what drives green consumption (Majeed et al., 2022). Furthermore, cross-cultural studies can bring some variance in green purchase behaviour among demographics, geography and socio-economics, as the concept of sustainability varies on the basis of cultural awareness and purpose (Mahmoud et al., 2024). On the other hand, evidence-based research within advanced and emerging economies might provide insight into challenges and opportunities resulting in green branding in analogous economic and cultural environments (Osuagwu, 2023).

Experimental research promotes green branding within multiple marketing variables like packaging, sustainability declarations and environmental labels (Mishra & Sharma, 2021). No controlled experiments are enough to capture the direct correlation of these variables on consumer behavior and enable causal conclusions (Patel & Goh, 2023). Complementarily, the utilization of tools like eye-tracking and neuroimaging uncovers subconscious consumer reactions to green branding (Lee et al., 2022), thereby enabling marketers to engage with consumers both cognitively and emotionally (Yang et al., 2024). Limited research exists on the influence of digital and social media marketing on green branding (Patel & Goh, 2023). Business models leveraging social media, online word-of-mouth and sustainability communication have changed the game of how consumers engage with green brands. Which aspect such as; effectiveness of digital campaigns on green purchase intention, or whether consumers trust online statements of sustainability, especially greenwashing will be another interesting research results (Mahmoud et al., 2024; Yang et al., 2024).

These research gaps help future research to add to the knowledge of green branding strategy and its influencing factors on sustainable consumption behavior (Osuagwu, 2023).

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