



# The Role of Green Marketing in Driving Consumer Preferences for Sustainable Products in E-Commerce

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## ABSTRACT

With increasing consumer demand for sustainable products, e-commerce platforms are integrating green marketing initiatives to attract consumers. In recent years, consumer preferences for sustainable products have experienced significant growth, driven in part by increased consciousness among consumers for green products. In this regard green marketing initiatives has a role in influencing consumer decisions for sustainable products in the e-commerce sector. Green marketing is a promotion of environmentally friendly products, is not only a strategic business tool but also a critical component in encouraging sustainable consumption patterns. The study investigates the mechanisms through which green marketing initiatives can shift consumer attitudes and behaviours in favour of sustainable products in online marketplaces. By analysing data from 501 respondents, this research highlights how e-commerce platforms leverage green marketing techniques to cater to environmentally conscious shoppers. This study employs structural equation modelling (SEM) to analyse green marketing initiatives, brand trust, perceived value and purchase intentions in e-commerce context. The paper explores the relationships between green marketing initiatives (such as eco-labelling, sustainable branding, transparency, and product sustainability) and key consumer outcomes (such as trust, perceived value, and purchase intention). The SEM analysis reveals that green marketing significantly influences consumer attitudes and purchase behaviour, with perceived product sustainability and brand trust emerging as the most impactful mediators. This research provides actionable insights for e-commerce businesses aiming to leverage green marketing to attract and retain eco-conscious consumers.

**Keywords:** Green Marketing initiatives, Perceived Value, Purchase Intentions, Structural Equation Modelling, Brand Trust.

**JEL Classifications:** Q56, M31, D12.

## 1. INTRODUCTION

A global push for sustainability and the facilitation of eco-friendly revolution, green marketing has emerged as a strategic business approach aimed at promoting products or services that are environmentally friendly or contribute to the conservation of natural resources. As the e-commerce industry continues to expand, businesses E-commerce offers unique opportunities to reach a global audience, but it also presents challenges related to conveying sustainability attributes effectively in driving consumer preferences for sustainable products in e-commerce, highlighting its effectiveness in shaping purchasing behaviour, fostering brand trust, and creating competitive advantages for businesses (Ahmad and Zhang, 2020; Kotler et al., 2022).

According to Kang and Hur (2011), Indian businesses understand that their customers are more likely to pick their goods and services by taking into consideration the sustainability aspect (Chen, 2010). To put it another way, businesses need to make a concerted effort to adopt sustainable marketing techniques (Rahbar and Wahid, 2011). Therefore, the increasing research in this domain suggest integration of sustainable practices in green marketing area (Khan et al., 2025). Country-specific field studies are required because national regulations and market segments and cultures are likely to have different attitudes and demand for green products (Ottman, 2017). This is especially true in newly growing markets (Kumar et al., 2013).

Keller (1993) asserts that as supporting marketing initiatives reflect the impact of green marketing initiatives on brand trust,

brand trust should be maintained over time by improving them. Consequently, prior researches shown the significance of green marketing initiatives as key components in building brand equity and trust and green marketing initiatives in building brand trust (Nguyen-Viet and Anh, 2022; Sohail, 2017). Nevertheless, no research has examined how brand trust characteristics are affected by green-specific marketing initiatives. Additionally, cultural norms caused differences in consumer opinions about the marketing mix between nations (Cui et al., 2008).

Many researchers advocated that by improving on brand trust, perceived value can be increased. Therefore, the interplay between brand trust aspects is the means by which perceived value is being better understood (Bang and Tuan, 2021; Chang and Chen, 2014; Delafrooz and Goli, 2015; De Leaniz, 2017) have thus been the focus of research. Nonetheless, it is not sufficient to just analyse brand trust in developing nations such as India and China from a Western perspective without first reproducing the green marketing model.

This article aims to (1) investigate how the functions of the green marketing mix contribute to the creation of brand trust in customers and (2) analyse the causal order among the brand trust, perceived value and purchase intentions, which is crucial for comprehending corporate branding initiatives in the research context (Buil et al., 2013). The results of the research provide insightful information about the influence of GMI on brand trust and perceived value and further on purchase decision. Depending on how much a particular consumer segment's members are inclined to care about the environment or assess the environmental effects of their actions, they also demonstrate how to effectively aim varying green marketing values at distinct customer groupings. This is how the remainder of the paper is structured. The conceptual framework and literature review are given first. Second, the study strategy and technique are described, and the analysis's findings are presented.

## 2. LITERATURE REVIEW: GREEN MARKETING AND CONSUMER BEHAVIOUR

### 2.1. Green Marketing Definition and Scope

Green marketing, in its broadest sense, refers to all marketing activities that promote products, services, or practices that are perceived as environmentally friendly or sustainable. This includes the use of sustainable materials, energy-efficient processes, ethical sourcing, and carbon-neutral production, among other practices. The key elements of green marketing often involve: Product sustainability: Focus on the environmental impact of the product, from production to disposal. Eco-labelling: Certification or labelling that indicates the environmental credentials of a product. Sustainability communication: Advertising and promotional campaigns that emphasize a brand's commitment to sustainability. Green marketing in e-commerce encompasses various strategies aimed at promoting products with environmental benefits. These strategies may include:

- Eco-labelling: Certification and labels that authenticate the sustainability of a product.

- Sustainable branding: Communicating a brand's commitment to sustainability through messaging and corporate social responsibility (CSR) efforts.
- Transparency: Providing consumers with detailed information about the product's environmental impact, such as sourcing, manufacturing processes, and carbon footprint.
- Product sustainability: The inherent environmental friendliness of the product, such as its recyclability, energy efficiency, or use of sustainable materials.

Green marketing has its origins in Lazer's (1969) early efforts to examine the societal aspects of marketing in relation to limited environmental resources, impacts of traditional marketing practices, and integration of ecological considerations into various components of conventional marketing. This approach has been identified as a novel form of marketing that can significantly contribute to a sense of self-consciousness (Kumar and Ghodeswar, 2015). This is characterized as a comprehensive efforts consistently reassesses how companies can fulfil corporate goals and address consumer demands while increasing sustainability (Polonsky and Rosenberger, 2001). The design aims to achieve the firms sustainability objectives while minimizing negative impacts or enhancing positive effects (Leonidou et al., 2013; Agarwal and Kumar, 2021).

Enhancing brand trust can lead to an increase in perceived value. The interplay among brand trust aspects serves as a framework for enhancing the understanding of perceived value, as evidenced by the focus of various studies (Buil et al., 2013). However, analyzing brand trust in developing nations like India and China solely from a Western perspective is inadequate (Delafrooz and Goli, 2015; De Leaniz, 2017; Kumar, 2016). This will emphasize the optimal choices according to firm and industry characteristics (Dangelico and Vocalelli, 2017). Keller (1993) posits that the cumulative effects of marketing initiatives on a brand necessitate the ongoing enhancement of these initiatives to sustain brand trust over time. Prior studies demonstrate the importance of green marketing initiatives as essential elements in the development of brand equity and trust (Nikabadi et al., 2015; Bang and Tuan, 2021). However, the digital environment also poses unique challenges for green marketing, such as the difficulty of conveying product sustainability in a way that resonates with consumers without appearing overly promotional or misleading (i.e., "greenwashing"). This discussion leads to following hypotheses:

- H<sub>1</sub>: Green marketing initiatives (eco-labelling, sustainable branding, transparency, and product sustainability) have a positive effect on brand trust.
- H<sub>2</sub>: Green marketing initiatives positively influence consumers' perceived value of sustainable products.
- H<sub>3</sub>: Green marketing initiatives directly influence consumers' purchase intentions of sustainable products.

### 2.2. Consumer Behaviour in E-Commerce

In the context of e-commerce, consumer decision-making is influenced by several psychological and emotional factors, which can be captured in the following latent variables:

- Brand trust (BT): The belief that a brand is honest, reliable, and committed to sustainability.

- Perceived value (PV): The consumer's perception of the product's worth, considering both its sustainability features and functional benefits.
- Purchase Intention (PI): The likelihood that a consumer will purchase a sustainable product based on their attitude.

Consumer preferences have shifted dramatically over the last decade, with more individuals becoming aware of the environmental consequences of their purchasing decisions. Several factors contribute to this change: Environmental awareness: Increased media coverage and education around climate change, deforestation, and pollution have heightened consumer sensitivity to sustainability. Millennial and Gen Z influence: Younger generations tend to prioritize sustainability in their purchasing choices, which has forced brands to adapt to these expectations. Ethical consumerism: Consumers are increasingly driven by values such as transparency, ethical sourcing, and corporate responsibility. Green marketing is seen as a critical strategy for businesses to cater to this environmentally aware consumer base, particularly in e-commerce, where digital communication plays a central role in shaping perceptions (Choi and Johnson, 2019).

The rapid growth of e-commerce has created a parallel environmental challenge. According to reports from the United Nations, e-commerce contributes significantly to carbon emissions due to increased packaging, transportation, and energy consumption of data centers. Despite this, the e-commerce sector presents an opportunity to promote sustainable practices through: Direct-to-consumer communication: E-commerce allows brands to directly communicate their sustainability efforts through product descriptions, marketing campaigns, and online platforms. Supply chain transparency: Consumers can access detailed information about sourcing, production, and shipping practices, providing more visibility into the environmental impact of their purchases. Eco-friendly alternatives: E-commerce platforms can offer a wide array of sustainable products, ranging from organic food to eco-friendly clothing, which may not be readily available in traditional brick-and-mortar stores.

E-commerce has rapidly transformed the retail landscape, enabling businesses to reach global audiences with ease. As environmental awareness increases, consumers are becoming more selective in their purchasing decisions, preferring sustainable products. The promotion of sustainable products in influencing consumer behaviour in e-commerce has been underexplored. This study investigates the role of green marketing in driving consumer preferences for sustainable products in e-commerce using Structural Equation Modelling (SEM).

Brand Trust plays a critical part in designing consumer preferences for green products. As e-commerce transactions are often remote and lack the physical experience of inspecting products, the ability of a company to build trust through its green marketing efforts is paramount. Research has shown that if companies clearly communicate their sustainability efforts and provide verifiable evidence of their environmental claims the tendency of purchase enhances. Brands that are consistently associated with environmental responsibility can build long-term loyalty. Positive

word-of-mouth and reviews from eco-conscious consumers also contribute to this effect (Khatami et al., 2023).

Several studies have explored the correlation between green marketing initiatives and consumer purchase intentions. Factors that influence this relationship include: Offering competitive pricing for eco-friendly products can increase consumer adoption. Perceived value of sustainability, if consumers perceive sustainable products as offering equal or superior quality compared to conventional products, they are more likely to choose them. Social influence, Online reviews, social media endorsements, and influencer marketing have a substantial impact on consumer choices. Positive feedback from like-minded individuals can drive purchase behaviour.

Based on prior literature and consumer behaviour models, the hypotheses proposed are given as:

- H<sub>4</sub>: Brand trust positively affects consumers' purchase intention for sustainable products.
- H<sub>5</sub>: Perceived value positively influences consumers' purchase intention for sustainable products.
- H<sub>6</sub>: Brand trust mediates the relationship between green marketing initiatives and purchase intention.
- H<sub>7</sub>: perceived value mediate the relationship between green marketing initiatives and purchase intention.

### 3. METHODOLOGY

#### 3.1. Research Design

Cross sectional design using SEM to test the proposed hypotheses was utilised. Data is collected via an online survey targeting consumers who have previously purchased sustainable products or expressed interest in doing so in e-commerce settings. The survey instrument includes questions measuring the key constructs: green marketing initiatives, brand trust, perceived value, and purchase intention measures. The data is analysed using LISREL software for SEM analysis.

This study employs four constructs, Green Marketing Initiatives scale based on eco-labeling and sustainable branding from Ottman (2011) and Peattie and Crane (2005). Brand trust scale was adapted from Chaudhuri and Holbrook (2001). Perceived Value was based on the Zeithaml (1988) framework, incorporating both functional and environmental value perceptions. Purchase Intention scale was derived from the work of Ajzen (1991) on the Theory of Planned Behaviour. The questionnaire collected demographic data and data related to research constructs on a 5 point Likert's scale.

#### 3.2. Sampling and Data Acquisition

The data was evaluated through a sample of respondents using organic milk products from various retail locations, including supermarkets, convenience stores, hypermarkets, and grocery stores in Delhi NCR, the capital city in India. Milk serves as a sustainable product due to its environmental advantages (McClements et al., 2019). Additionally, consumers select milk and related products that are both healthy and environmentally sustainable to fulfil their ecological requirements (Chen, 2010). Convenience sampling was employed. No answers were

definitively correct or incorrect. Participants were informed that their involvement granted them a minor incentive. All surveys included covering letters detailing the research's aim and purpose, assuring respondents of the confidentiality. One thousand questionnaires were distributed between August and December 2024. Following the removal of questionnaires which were incomplete, 501 completed questionnaires for further analysis were considered.

A total of 501 respondents from diverse demographic backgrounds (age, income, education level) were surveyed to ensure generalizability. The survey was designed to capture data on:

- Green marketing initiatives (GMI): The extent to which consumers perceive eco-labels, sustainable branding, transparency, and product sustainability as important in their purchase decisions.
- Brand trust (BT): Measured by consumers' belief in a brand's commitment to environmental responsibility.
- Perceived value (PV): Assessed through questions about the perceived benefits (functional and environmental) of sustainable products.
- Purchase intention (PI): Measured by asking respondents how likely they are to purchase sustainable products in the future based on the aforementioned factors.

SEM is employed to evaluate simultaneous models. The measurement model ensures that the constructs are reliably and validly represented by the observed variables.

## 4. RESULTS AND ANALYSIS

The majority of respondents are between the ages of 15 and 45, and most have at least a bachelor's degree. The sample is balanced in terms of gender, with a slight lean towards female respondents (48.4%) earned <50,000 INR/month (69.7%), were below 35 years of age (77.9%), and were undergrads (39.1%) (Table 1).

Table 2 represents normality of data through skewness and kurtosis measures, all the values were under acceptable ranges. Thus normality was established for the data gathered.

### 4.1. Analysis: Measurement Model Evaluation

The measurement model shows good reliability and validity: Following tests were performed to establish reliability and validity of all study scales.

- Cronbach's alpha: All constructs were more than recommended value of 0.70, indicating internal consistency.
- Convergent validity: Average Variance Extracted measures were above 0.50, suggesting that the constructs explain more than 50% of the variance in their items.
- Discriminant validity: Fornell and Larker, (1981) suggested that if square root of AVE is greater than correlation among constructs, discriminant validity can be ensured.

The unidimensionality, reliability and validity were evaluated under investigation, with specifics provided in Table 3. The acceptability for the assessment of measurement model Alpha values, AVE and path values were established in accordance with

**Table 1: Showing demographic details of respondents**

| Demographic variables     | Frequency (n) | Percentage |
|---------------------------|---------------|------------|
| Gender                    |               |            |
| Males                     | 258           | 51.6       |
| Females                   | 243           | 48.4       |
| Total                     | 501           | 100.0      |
| Educational qualification |               |            |
| Under grads               | 197           | 39.4       |
| Graduates                 | 203           | 41.1       |
| Masters                   | 104           | 19.5       |
| Others                    |               |            |
| Total                     | 501           | 100.0      |
| Age (years)               |               |            |
| 15-25 years               | 219           | 43.71      |
| 25-35 years               | 171           | 34.13      |
| More than 35 years        | 116           | 23.15      |
| Total                     | 501           | 100        |
| Income (per month INR)    |               |            |
| <30,000                   | 197           | 39.32      |
| 30,000-50,000             | 151           | 30.13      |
| 50,000-100,000            | 125           | 24.95      |
| More than 1 lakh          | 28            | 5.58       |
| Total                     | 501           | 100.0      |

Source: Prepared by author

Hair et al. (2017). SEM serves to evaluate the model and research hypotheses. Composite reliability is utilized to measure construct reliability. Values were between 0.632 and 0.845, were more than acceptable threshold of 0.4 (Hair et al., 2017). The items for each construct is assessed using  $\alpha$ , with values exceeding 0.6 seems appropriate for reliability and consistency among the items (Hair et al., 2017).

### 4.2. Common Method Bias

CMB can lead to discrepancies between ideal and real values. Consequently, various procedural remedies were employed, Harman's single-factor test is utilized to assess bias (Podsakoff et al., 2003). The initial unrotated factor accounts for 11.835% of the variance in the dataset (Table 4). Consequently, these findings indicate that CMB does not pose a concern in this study.

### 4.3. Structural Model Evaluation

SEM's Maximum likelihood method was employed due to model's complexity and the necessity to simultaneously test relationships among constructs. Figure 1 presents the structural model estimates. The data indicate a satisfactory alignment with our conceptual model. The findings from the estimated model indicate that green marketing initiatives significantly influence brand trust ( $\beta = 0.87$ ,  $P < 0.001$ ) perceived value ( $\beta = 0.80$ ,  $P < 0.001$ ) and Purchase intention ( $\beta = 1.36$ ,  $P < 0.001$ ). Consequently,  $H_5$ ,  $H_7$  receive support, whereas  $H_4$  and  $H_6$  do not. The path from BT to PI ( $\beta = -0.38$ ,  $P < 0.001$ ) and PV to PI ( $\beta = 0.07$ ,  $P < 0.001$ ) were negative and positive respectively and the fit indices were given in Table 5.

The results from the SEM analysis confirm that green marketing initiatives significantly impact both brand trust and perceived value ( $P < 0.01$ ). In turn, only perceived value both have a strong positive effect on purchase intention ( $P < 0.01$ ). The causes for this were discussed in the next section.



**Table 2: Normality of data measures**

| Constructs         | N         | Mean      |                | Standard deviation | Skewness  |                | Kurtosis  |                |
|--------------------|-----------|-----------|----------------|--------------------|-----------|----------------|-----------|----------------|
|                    | Statistic | Statistic | Standard error | Statistic          | Statistic | Standard error | Statistic | Standard error |
| GMI                | 501       | 3.2923    | 0.05825        | 0.66410            | 0.077     | 0.212          | -0.126    | 0.422          |
| BT                 | 501       | 3.2231    | 0.07347        | 0.83773            | -0.282    | 0.212          | 0.365     | 0.422          |
| PV                 | 501       | 3.1131    | 0.05447        | 0.66773            | -0.182    | 0.112          | 0.165     | 0.422          |
| PI                 | 501       | 3.2462    | 0.06558        | 0.74773            | -0.550    | 0.212          | -0.004    | 0.422          |
| Valid N (listwise) | 501       |           |                |                    |           |                |           |                |

**Table 3: Measurement model estimation**

| Measures | CR   | Cronbach alpha | Min t values | AVE   | Min loadings |
|----------|------|----------------|--------------|-------|--------------|
| GMI      | 0.74 | 0.813          | 4.44         | 0.512 | 0.39         |
| BT       | 0.81 | 0.802          | 5.55         | 0.617 | 0.43         |
| PV       | 0.61 | 0.733          | 7.56         | 0.622 | 0.41         |
| PI       | 0.63 | 0.753          | 3.56         | 0.632 | 0.39         |

Source: Table created by author

**Table 4: Showing total variance explained for ensuring CMB**

| Component | Intl egenvalues |               |              | Extracted sum of squared loadings |               |              |
|-----------|-----------------|---------------|--------------|-----------------------------------|---------------|--------------|
|           | Total           | % of Variance | Cumulative % | Total                             | % of variance | Cumulative % |
| 1         | 5.681           | 11.835        | 11.835       | 5.681                             | 11.835        | 11.835       |
| 2         | 2.664           | 5.550         | 17.385       | 2.664                             | 5.550         | 17.385       |
| 3         | 2.431           | 5.065         | 22.450       | 2.431                             | 5.065         | 22.450       |
| 4         | 2.306           | 4.805         | 27.254       | 2.306                             | 4.805         | 27.254       |
| 5         | 2.137           | 4.452         | 31.706       | 2.137                             | 4.452         | 31.706       |
| 6         | 1.853           | 3.860         | 35.566       | 1.853                             | 3.860         | 35.566       |
| 7         | 1.790           | 3.728         | 39.295       | 1.790                             | 3.728         | 39.295       |
| 8         | 1.667           | 3.474         | 42.768       | 1.667                             | 3.474         | 42.768       |
| 9         | 1.572           | 3.276         | 46.044       | 1.572                             | 3.276         | 46.044       |
| 10        | 1.525           | 3.178         | 49.222       | 1.525                             | 3.178         | 49.222       |
| 11        | 1.458           | 3.037         | 52.259       | 1.458                             | 3.037         | 52.259       |
| 12        | 1.415           | 2.947         | 55.206       | 1.415                             | 2.947         | 55.206       |
| 13        | 1.328           | 2.766         | 57.972       | 1.328                             | 2.766         | 57.972       |
| 14        | 1.302           | 2.713         | 60.685       | 1.302                             | 2.713         | 60.685       |
| 15        | 1.221           | 2.544         | 63.229       | 1.221                             | 2.544         | 63.229       |
| 16        | 1.182           | 2.462         | 65.691       | 1.182                             | 2.462         | 65.691       |
| 17        | 1.144           | 2.384         | 68.075       | 1.144                             | 2.384         | 68.075       |
| 18        | 1.115           | 2.322         | 70.397       | 1.115                             | 2.322         | 70.397       |
| 19        | 1.045           | 2.177         | 72.574       | 1.045                             | 2.177         | 72.574       |
| 20        | 1.023           | 2.131         | 74.705       | 1.023                             | 2.131         | 74.705       |
| 21        | 1.006           | 2.096         | 76.801       | 1.006                             | 2.096         | 76.801       |

Extraction method: PCA

#### 4.4. Mediation Effects

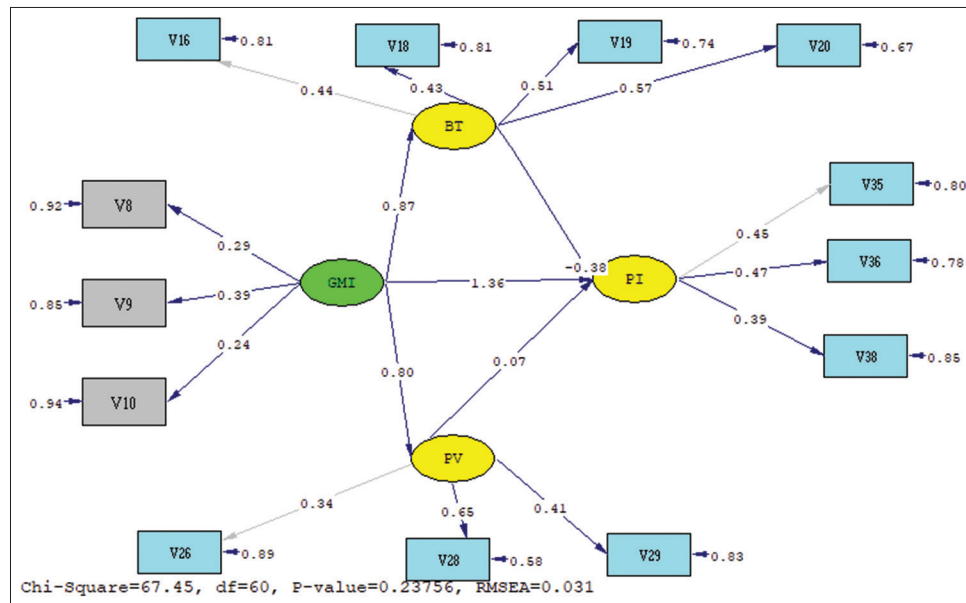
The results support the mediating roles of brand trust and perceived value in the relationship between green marketing initiatives and purchase intention. The direct path from green marketing to purchase intention is positive but less significant when brand trust and perceived value are included as mediators. This suggests that green marketing initiatives influence purchase intention primarily through their impact on trust and perceived value. However, the relationship between GMI and PI was not mediated by brand trust (BT). Types of mediation was established through Figure 2.

## 5. DISCUSSION

According to Raghavan and Vahanti (2009), green marketing is gaining traction in developing nations. This occurs because consumers generally favour environmental friendly organizations (Han and Kim, 2010). Consumers often endorse environmental

friendly production through buying products from these companies. The dynamics of Green marketing in shaping consumer purchase intention is essential for eliminating bottlenecks in sustainable behavior (Welsch and Kühling, 2009).

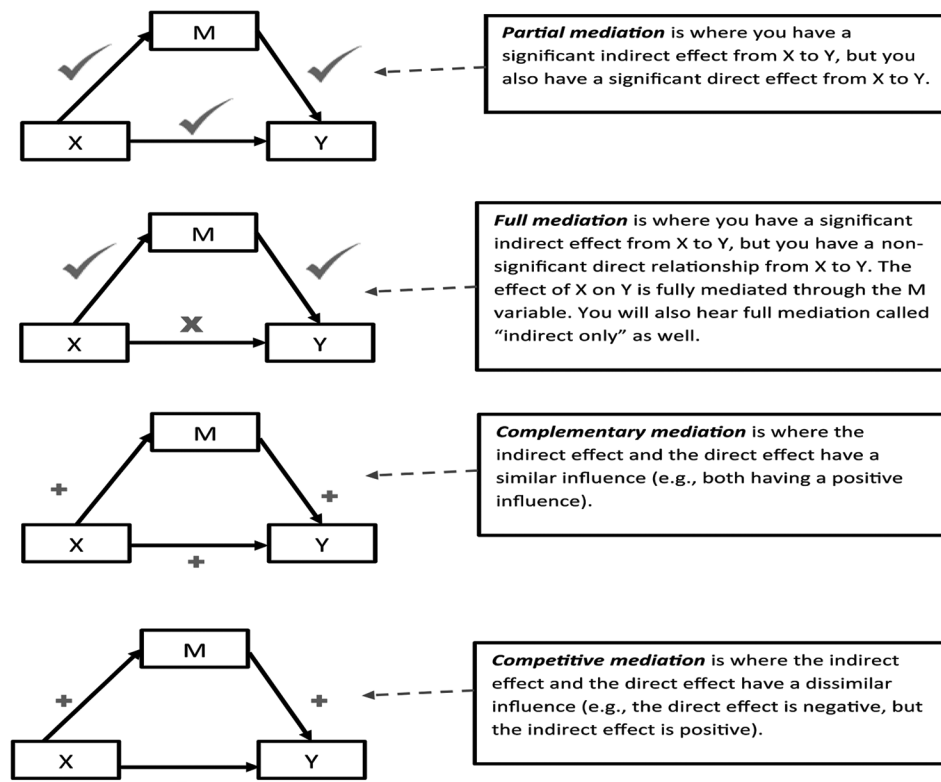
Tan et al. (2022) asserts that a fundamental aspect of sustainable economic growth is identifying the determinants of individuals' behaviour towards green products. Shifts in needs of customers have compelled companies to improve their social responsibility image and enterprises that prioritize environmental responsibility. This study examines the measures from the Theory of Planned Behaviour in shaping consumer intentions to buy green products. The present study enhances the original framework of green marketing initiatives (Eco labelling, innovation, sustainability etc.) and measures of Theory of Planned Behaviour (perceived value) by incorporating mediating role of brand trust to predict purchase intentions for green products (Ajzen & Fishbein, 1975).

**Figure 1: Structural model**

Source: Prepared by the author

**Figure 2: Showing types of mediation and reference chart for mediation analysis**

The indirect effect can take different forms:



Source: Collier, (2020)

**Table 5: Indices for the structural model**

| GFI  | NFI  | CFI  | NNFI | RMSEA | DF   | Chi-square | P-value |
|------|------|------|------|-------|------|------------|---------|
| 0.88 | 0.89 | 0.90 | 0.89 | 0.031 | 0.60 | 67.45      | 0.000   |

Source: Prepared by the author

The findings indicate that GMI significantly and positively influences BT and PV and consumers' purchasing behavior was influenced positively by Perceived value regarding green products. The current study's findings align with those

reported in research (Kumar et al., 2021; Nguyen et al., 2019). Consumers' perceived value specifically their attitudes towards green marketing, significantly influence purchase intentions. Additionally, it was found that Brand trust significantly influenced by green marketing initiatives but unable to make any positive influence intentions to purchase sustainable products. It is also advocated that consumers with favorable attitudes towards green marketing are more inclined to purchase them compared to other consumers, brand trust does not play any role in this connection. Nejati et al. (2011) assert that perceived value significantly influence green purchasing behaviour, potentially leading to a substantial increase in actual purchasing actions. Soodan and Pandey (2016) found that brand trust does not influence purchase intentions. The findings of the current study align with those reported in the existing literature (Soodan and Pandey, 2016; Kumar et al., 2021; Yadav and Pathak, 2017; Hamzah and Tanwir, 2021; Zubair et al., 2020).

Dahia et al. (2021) indicate that limited consumer awareness adversely impacts the purchasing behavior for organic foods. Pang et al. (2023) emphasize that the behavioral traits of consumers significantly influence the purchasing behavior. The findings of this research corroborates with many researches (Kumar et al., 2021; Joshi and Srivastava, 2020; Yadav and Pathak, 2017; Wu and Chen, 2014; Tewari et al., 2022; Pop et al., 2020; Nekmahmud et al., 2022).

## 6. CONCLUSION AND RECOMMENDATIONS

Green marketing is a powerful tool in driving consumer preferences for sustainable products in e-commerce. As consumer demand for sustainability continues to rise, e-commerce platforms must innovate and implement effective green marketing strategies to remain competitive. However, to successfully capture the eco-conscious market, businesses must ensure the authenticity of their sustainability claims, integrate eco-friendly practices across their supply chains, and communicate these efforts transparently to consumers. Moving forward, companies should focus on: Clear communication about sustainability efforts and certifications, Offering affordable eco-friendly products and shipping options, Ensuring that environmental claims are substantiated by credible third-party certifications.

As consumer preferences for sustainable products continue to evolve, green marketing will play an increasingly vital role in shaping the future of e-commerce. The role of GMI in the formation of customer preferences for sustainable products in e-commerce was presented in this research. Through SEM analysis, it is established that green marketing initiatives significantly impact brand trust and perceived value, which in turn influence purchase intention. E-commerce businesses can use these findings to craft more effective green marketing strategies that align with consumer expectations for sustainability, fostering stronger consumer-brand relationships and driving sales of eco-friendly products.

## 7. RESEARCH IMPLICATIONS AND LIMITATIONS

The implications were enlisted as under. Firstly, Transparent communication about the sustainability of products and the environmental practices of brands significantly enhances consumer trust and perceived value. Secondly, E-commerce companies should invest in building long-term trust with their consumers by maintaining consistent sustainability practices and ensuring authenticity in their green marketing claims. Thirdly, While sustainability is important, consumers also weigh the functional benefits of the product. Highlighting both eco-friendly and practical features can enhance perceived value and increase purchase intention. The study has many limitations, such as longitudinal design can be adopted for the testing of this model in future studies. Additionally, studies could explore the role of other factors, such as social influence and ethical consumption norms, in shaping sustainable purchase behaviour in e-commerce.

## REFERENCES

- Ahmad, W. and Zhang, Q. (2020), "Green purchase intention: effects of electronic service quality and customer green psychology", *Journal of Cleaner Production*, Vol. 267, p. 122053.
- Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50 No. 2, pp. 179-211.
- Ajzen, I. and Fishbein, M. (1975), "A Bayesian analysis of attribution processes", *Psychological Bulletin*, Vol. 82 No. 2, p. 261.
- Buil, I., Martínez, E. and de Chernatony, L. (2013), "The influence of brand equity on consumer responses", *Journal of Consumer Marketing*, Vol. 30 No. 1, pp. 62-74.
- Chan, R.Y.K. and Lau, L.B.Y. (2002), "Explaining green purchasing behavior: a cross cultural studies on American and Chinese consumers", *Journal of International Consumer Marketing*, Vol. 14 Nos 2/3, pp. 9-40.
- Chang, C.H. and Chen, Y.S. (2014), "Managing green brand equity: The perspective of perceived risk theory", *Quality and Quantity*, Vol. 48 No. 3, pp. 1753-1768.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81-93.
- Chen, Y.-S. (2010), "The Drivers of Green Brand Equity: Green Brand Image, Green Satisfaction, and Green Trust", *Journal of Business Ethics*, Vol. 93 No. 2, pp. 307-319.
- Choi, D. and Johnson, K.K. (2019), "Influences of environmental and hedonic motivations on intention to purchase green products: an extension of the theory of planned behavior", *Sustainable Production and Consumption*, Vol. 18, pp. 145-155.
- Collier, J.E. (2020), *Applied Structural Equation Modeling Using AMOS*, 1st ed., Routledge, New York, NY.
- Cui, Z., Liu, J., Xia, B. and Cheng, Y. (2019), "Beyond national culture difference: The role of cultural intelligence in cooperation within international construction joint ventures and insights from Chinese companies", *Engineering, Construction and Architectural Management*, Vol. 26 No. 7, pp. 1476-1497.
- Dahiya, S., Panghal, A., Sindhu, S. and Siwach, P. (2021), "Organic food women entrepreneurs-TISM approach for challenges", *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 15 No. 1, pp. 114-136.
- Dangelico, R. M., & Vocalelli, D. (2017). 'Green marketing': An Analysis of definitions, strategy steps, and tools through a systematic review

- of the literature. *Journal of Cleaner Production*, 165, 1263–1279.
- de Leaniz, P.M.G., Herrero Crespo, Á. and Gómez López, R. (2018), “Customer responses to environmentally certified hotels: the moderating effect of environmental consciousness on the formation of behavioral intentions”, *Journal of Sustainable Tourism*, Vol. 26 No. 7, pp. 1160–1177
- Delafrooz, N. and Goli, A. (2015), “The factors affecting the green brand equity of electronic products: Green marketing”, *Cogent Business & Management*, Vol. 2 No. 1.
- Fakhar, S., Mohd Khan, F., Tabash, M.I., Ahmad, G., Akhter, J. and Al-Absy, M.S.M. (2023), “Financial distress in the banking industry: A bibliometric synthesis and exploration”, *Cogent Economics & Finance*, Vol. 11 No. 2.
- Fornell, C. and Larcker, D.F. (1981), “Structural equation models with unobservable variables and measurement error: algebra and statistics”, *Journal of Marketing Research*, Vol. 18 No. 3, pp. 382–388.
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010), *Multivariate Data Analysis*, 7th ed., Pearson Education Limited.
- Hamzah, M.I. and Tanwir, N.S. (2021), “Do pro-environmental factors lead to purchase intention of hybrid vehicles? The moderating effects of environmental knowledge”, *Journal of Cleaner Production*, Vol. 279, p. 123643,
- Han, H. and Kim, Y. (2010), “An investigation of green hotel customers’ decision formation: developing an extended model of the theory of planned behavior”, *International Journal of Hospitality Management*, Vol. 29 No. 4, pp. 659–668.
- Joshi, Y. and Srivastava, A.P. (2020), “Examining the effects of CE and BE on consumers’ purchase intention toward green apparels”, *Young Consumers*, Vol. 21 No. 2, pp. 255–272.
- Kang, S. and Hur, W.M. (2012), “Investigating the Antecedents of Green Brand Equity: A Sustainable Development Perspective”, *Corporate Social Responsibility and Environmental Management*, Vol. 19 No. 5, pp. 306–316.
- Keller, K.L. (1993), “Conceptualizing, Measuring, and Managing Customer-Based Brand Equity”, *Journal of Marketing*, Vol. 57 No. 1, p. 1.
- Khan, F.M., Uddin, S.M.F., Anas, M., Kautish, P. and Thaichon, P. (2025), “Personal Values and Sustainable Consumerism: Performance Trends, Intellectual Structure, and Future Research Fronts”, *Journal of Consumer Behaviour*, Vol. 24 No. 2, pp. 734–770.
- Khan, F.M. and Azam, M.K. (2023), “Chatbots in hospitality and tourism: a bibliometric synthesis of evidence”, *Journal of the Academy of Business and Emerging Markets*, Vol. 3 No. 2, pp. 29–40
- Khatami, F., Vilamova, Cagno, E., De Bernardi, P., Neri, A. and Cantino, V.Š. (2023), “Efficiency of consumer behaviour and digital ecosystem in the generation of the plastic waste toward the circular economy”, *Journal of Environmental Management*, Vol. 325, p. 116555.
- Kotler, P., Keller, K.L. and Chernev, A. (2022), *Marketing Management*, 16th ed., Pearson Education Limited.
- Kumar, P. and Ghodeswar, B.M. (2015), “Factors affecting consumers’ green product purchase decisions”, *Marketing Intelligence and Planning*, Vol. 33 No. 3, pp. 330–347.
- Kumar, A., Prakash, G. and Kumar, G. (2021), “Does environmentally responsible purchase intention matter for consumers? A predictive sustainable model developed through an empirical study”,
- Lazer, W. (1969), “Marketing’s Changing Social Relationships”, *Journal of Marketing*, Vol. 33 No. 1, pp. 3–9
- Leonidou, C. N., Katsikeas, C. S., & Morgan, N. A. (2013). Greening’ the marketing mix: Do firms do it and does it pay off? *Journal of the Academy of Marketing Science*, 41(2), 151–170.
- McClements, D.J., Newman, E. and McClements, I.F. (2019), “Plant-based Milks: A Review of the Science Underpinning Their Design, Fabrication, and Performance”, *Comprehensive Reviews in Food Science and Food Safety*, Vol. 18 No. 6, pp. 2047–2067.
- Nejati, M., Salamzadeh, Y. and Salamzadeh, A. (2011), “Ecological purchase behaviour: insights from a Middle Eastern country”, *International Journal of Environment and Sustainable Development*, Vol. 10 No. 4, pp. 417–432.
- Nekmahmud, M., Naz, F., Ramkinsoon, H. and Fekete-Farkas, M. (2022), “Transforming consumers’ intention to purchase green products: role of social media”, *Technological Forecasting and Social Change*, Vol. 185, p. 122067.
- Nguyen, M.T.T., Nguyen, L.H. and Nguyen, H.V. (2019), “Materialistic values and green apparel purchase intention among young Vietnamese consumers”, *Young Consumers*, Vol. 20 No. 4, pp. 246–263.
- Nguyen-Viet, B. and Anh, T.N. (2022), “Green Marketing Functions: The Drivers of Brand Equity Creation in Vietnam”, *Journal of Promotion Management*, Vol. 28 No. 7, pp. 1055–1076.
- Nikabadi, M.S., Safui, M.A. and Agheshlouei, H. (2015), “Role of Advertising and Promotion in Brand Equity Creation”, *Journal of Promotion Management*, Vol. 21 No. 1, pp. 13–32.
- Ottman, J. A. (2011). *The New Rules of Green Marketing: Strategies, Tools, and Inspiration for Sustainable Branding*. Berrett-Koehler Publishers.
- Ottman, J. A. (2017). *The new rules of green marketing*, [online]. Routledge. <https://doi.org/10.4324/9781351278683>
- Pang, C., Li, G. and Jiang, L. (2023), “Leveraging strategic consumer behavior in consumer-to-consumer resale: from economic and environmental perspectives”, *Omega*, Vol. 120, p. 102924.
- Peattie, K., & Crane, A. (2005). "Green Marketing: Legend, Myth, Farce or Prophecy?" *Qualitative Market Research: An International Journal*.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), “Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies”, *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879–903.
- Polonsky, M.J. and Rosenberger, P.J. (2001), “Reevaluating green marketing: A strategic approach”, *Business Horizons*, Vol. 44 No. 5, pp. 21–30.
- Pop, R.A., Saplacan, Z. and Alt, M.A. (2020), “Social media goes green—the impact of social media on green cosmetics purchase motivation and intention”, *Information*, Vol. 11 No. 9, 447.
- Raghavan, L. and Vahanti, G. (2009), “Going green in India”, *Landor*, pp. 1–5.
- Rahbar, E. and Wahid, N.A. (2011), “Investigation of green marketing tools’ effect on consumers’ purchase behavior”, *Business Strategy Series*, Vol. 12 No. 2, pp. 73–83.
- Rashid, U., Abdullah, M., Khatib, S.F.A., Khan, F.M. and Akhter, J. (2024), “Unravelling trends, patterns and intellectual structure of research on bankruptcy in SMEs: A bibliometric assessment and visualisation”, *Heliyon*, Elsevier Ltd, Vol. 10 No. 2, p. e24254.
- Sohail, M.S. (2017), “Green marketing strategies: how do they influence consumer-based brand equity?”, *J. for Global Business Advancement*, Vol. 10 No. 3, p. 229.
- Soodan, V. and Pandey, A.C. (2016), “Influence of emotions on consumer buying behavior”, *Journal of Entrepreneurship, Business and Economics*, Vol. 4 No. 2, pp. 163–181.
- Tan, T.M., Makkonen, H., Puneet, K. and Salo, J. (2022), “How do ethical consumers utilize sharing economy platforms as part of their sustainable resale behavior? The role of consumers’ green consumption values”, *Technological Forecasting and Social Change*, 176, 121432.
- Tewari, A., Mathur, S., Srivastava, S. and Gangwar, D. (2022), “Examining the role of receptivity to green communication, altruism and openness to change on young consumers’ intention to purchase green apparel: a multi-analytical approach”, *Journal of Retailing and*



- Consumer Services, Vol. 66, p. 102938.
- United Nations Conference on Trade and Development (UNCTAD). (2020). The Role of E-Commerce in the Digital Economy and Sustainable Development. UNCTAD Digital Economy Report.
- Welsch, H. and Kühling, J. (2009), "Determinants of pro-environmental consumption: the role of reference groups and routine behavior", *Ecological Economics*, Vol. 69 No. 1, pp. 166-176.
- Wu, S.-I. and Chen, J. (2014), "A model of green consumption behavior constructed by the theory of planned behavior", *International Journal of Marketing Studies*, Vol. 6 No. 5, pp. 119-129.
- Yadav, R. and Pathak, G.S. (2016), "Intention to purchase organic food among young consumers: evidence from a developing nation", *Appetite*, Vol. 96 No. 1, pp. 122-128.
- Yadav, R. and Pathak, G.S. (2017), "Determinants of consumers' green purchase behavior in a developing nation: applying and extending the theory of planned behavior", *Ecological Economics*, Vol. 134, pp. 114-122.
- Zeithaml, V. A. (1988). Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*.
- Zubair, M., Wang, X., Iqbal, S., Awais, M. and Wang, R. (2020), "Attentional and emotional brain response to message framing in context of green marketing", *Heliyon*, Vol. 6 No. 9, p. e04912.