



Green Consumer Behaviour in the Digital Era: An Empirical Study among Consumers in Kerala

Jisha T K

Assistant Professor, PG Department of Commerce, Nirmala College of Arts and Science, Meloor

Email: jishaprasanth2341@gmail.com

DOI : <https://doi.org/10.5281/zenodo.22048954>

ARTICLE DETAILS

Research Paper

Received: 22-06-2026

Accepted: 16-07-2026

Published: 20-08-2026

Keywords:

Green Consumer Behaviour, Digital Marketing, Sustainable Consumption, Green Purchase Intention, Consumer Trust, Kerala

ABSTRACT

The increasing awareness of environmental sustainability, coupled with rapid digital transformation, has significantly influenced consumer purchasing behaviour. Digital technologies such as social media, e-commerce platforms, mobile applications, online reviews, and artificial intelligence have become powerful tools in shaping environmentally responsible consumption patterns. This study examines the factors influencing green consumer behaviour in the digital era among consumers in Kerala. The research adopts a descriptive and analytical design using primary data collected from 200 respondents through a structured questionnaire. Percentage analysis is employed to analyse demographic characteristics, digital platform usage, environmental awareness, and green purchasing behaviour. The Chi-Square (χ^2) test is used to examine the association between digital engagement and green consumer behaviour. The findings indicate that consumers who actively use digital platforms are more aware of sustainable products and are more likely to purchase environmentally friendly products. Social media campaigns, online product reviews, and eco-labels significantly influence green purchase decisions. However, concerns regarding greenwashing, high product prices, and lack of credible sustainability

Disclaimer: The opinions, interpretations, conclusions, recommendations, analyses, and statements expressed in this research article are solely those of the author(s) and do not reflect the views, policies, or positions of the Publisher, Chief Editor, Editors, Editorial Board, Reviewers, or their affiliated institutions. The author(s) are solely responsible for ensuring the originality, authenticity, and integrity of the manuscript and for ensuring that it is free from plagiarism, AI-generated content, copyright infringement, data falsification, and any other form of academic misconduct.



information continue to affect consumer confidence. The study concludes that digital platforms can play a vital role in promoting sustainable consumption by enhancing environmental awareness and encouraging responsible purchasing behaviour. It recommends greater transparency in sustainability communication, stronger environmental education, and stricter regulation of misleading environmental claims to strengthen green consumer behaviour in the digital marketplace.

1. Introduction

Environmental sustainability has become one of the most important global issues in the twenty-first century. Rapid industrialisation, urbanisation, climate change, deforestation, pollution, and excessive use of natural resources have created serious environmental challenges across the world. Governments, international organisations, businesses, and consumers are increasingly recognising the need to protect the environment and promote sustainable development. The United Nations Sustainable Development Goals (SDGs), particularly SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action), encourage countries to adopt environmentally responsible production and consumption practices. As a result, consumers are becoming more aware of the environmental impact of their purchasing decisions and are showing greater interest in products that are eco-friendly, recyclable, energy-efficient, and sustainably produced.

Green consumer behaviour refers to the purchasing, consumption, and disposal of products in ways that minimise harm to the environment. Green consumers prefer products that are environmentally friendly, use fewer natural resources, produce less pollution, and can be recycled or reused. Businesses around the world have responded by introducing green products, sustainable packaging, eco-labels, and environmentally responsible marketing strategies. However, consumer decisions are influenced not only by environmental awareness but also by factors such as product quality, price, trust, and the availability of reliable sustainability information.

The rapid growth of digital technology has further transformed consumer behaviour. Today, consumers use smartphones, social media, e-commerce websites, mobile applications, and online review platforms to search for product information, compare alternatives, and make purchasing decisions. Digital marketing enables businesses to communicate their sustainability initiatives more effectively and educate consumers about environmentally friendly products. Social media platforms such as Instagram, Facebook, YouTube,



LinkedIn, and X (formerly Twitter) have become important channels for promoting sustainable lifestyles. Environmental influencers, online communities, and electronic word-of-mouth (e-WOM) significantly influence consumers' attitudes towards green products and sustainable consumption.

In India, environmental sustainability has become an important policy priority due to rapid economic growth, increasing urbanisation, and rising environmental concerns. Government initiatives such as the Swachh Bharat Mission, Mission LiFE (Lifestyle for Environment), the ban on selected single-use plastics, renewable energy programmes, and campaigns promoting sustainable lifestyles have increased public awareness of environmental protection. At the same time, India has experienced rapid digital transformation through the expansion of internet connectivity, smartphones, digital payment systems, and e-commerce platforms. Consumers increasingly depend on digital media to obtain product information, compare brands, read online reviews, and purchase products. Consequently, digital marketing has emerged as a powerful tool for encouraging environmentally responsible consumer behaviour.

Kerala provides an ideal setting for studying green consumer behaviour in the digital era. The state has one of the highest literacy rates in India, high internet penetration, widespread smartphone usage, and a digitally connected population. Consumers in Kerala actively use social media, online shopping platforms, and digital payment systems in their daily lives. The state's strong environmental awareness, growing preference for organic products, eco-friendly packaging, sustainable tourism, and waste management initiatives further support the development of green consumer behaviour. However, consumers in Kerala also face challenges such as high prices of green products, limited availability of certain eco-friendly products, and concerns about misleading environmental claims or greenwashing.

Although previous studies have examined green marketing, digital marketing, and sustainable consumption separately, limited research has investigated how digital engagement influences green consumer behaviour among consumers in Kerala. Understanding this relationship is important for businesses, marketers, and policymakers to develop effective strategies that encourage sustainable consumption and strengthen consumer trust in green products.

Against this background, the present study examines green consumer behaviour in the digital era among consumers in Kerala. The study investigates how digital marketing, social media, online reviews, environmental awareness, and consumer trust influence green purchasing decisions. It also identifies the challenges affecting sustainable consumption and provides suggestions for promoting environmentally responsible consumer behaviour through digital platforms.



2. Review of Literature

Fernandes et al. (2024) examined the relationship between sustainable consumption consciousness and consumers' purchase intentions for green products through a comparative study conducted in India and the United States. The findings revealed that consumers with higher levels of sustainability consciousness demonstrated stronger intentions to purchase environmentally friendly products. The study also highlighted that awareness and sustainable consumption habits significantly influenced purchase decisions. However, the research focused primarily on comparing two countries and did not investigate the influence of digital marketing channels such as social media or online advertising on green purchase behaviour.

Upadhyaya and Sijoria (2024) investigated the factors influencing consumers' intentions to purchase green cosmetics in India using the Theory of Planned Behaviour. The study found that environmental concern, subjective norms, perceived behavioural control, and consumer attitudes significantly influenced purchase intention. The authors concluded that marketers should strengthen environmental communication to increase consumer confidence in green products. Nevertheless, the study was limited to the cosmetics industry and did not examine broader categories of sustainable consumer goods.

Prakash et al. (2024) explored the relationship between green purchase intention and zero-waste buying behaviour among Indian consumers. Their findings indicated that positive environmental attitudes and green purchase intentions significantly encouraged consumers to adopt zero-waste consumption practices. The study also reported that consumers' behavioural intentions translated into sustainable purchasing only when supported by favourable attitudes and perceived environmental benefits. However, the research did not consider the role of digital marketing or online promotional strategies in influencing consumer behaviour.

Naini (2024) examined the role of green awareness and green behaviour in promoting sustainable consumption in India. The study found that green awareness significantly enhanced sustainable consumer behaviour, while environmentally responsible actions strengthened consumers' commitment to sustainable lifestyles. The research suggested that policymakers and businesses should improve environmental education and awareness campaigns. However, the study focused mainly on consumer awareness and did not analyse the influence of digital marketing platforms on sustainable purchasing decisions.

Khan et al. (2024) investigated the influence of social media on consumers' green purchase intention. The study demonstrated that social media engagement, environmental information sharing, and trust in online content positively influenced consumers' intentions to purchase environmentally friendly products. The findings also showed that digital platforms play a significant role in encouraging sustainable consumption.



However, the authors noted that future studies should examine regional and cultural differences in consumers' responses to digital sustainability campaigns.

Ahmad and Ahmad (2024) analysed the impact of the green marketing mix on consumers' purchase intentions in North India. The study concluded that green product quality, green pricing, green promotion, and green distribution positively influenced consumers' intentions to purchase environmentally friendly products. Among these, green promotion emerged as one of the strongest determinants of purchase intention. However, the research was geographically limited to North India and recommended further studies across other regions.

3. Research Gap

The existing literature demonstrates that environmental awareness, sustainable consumption consciousness, social media engagement, and green marketing strategies significantly influence consumers' green purchase intentions and sustainable consumption behaviour. However, several important research gaps remain. Most previous studies have focused on green purchase intention rather than actual green consumer behaviour, leaving a gap between consumers' intentions and their real purchasing decisions. In addition, existing research has primarily examined individual factors such as environmental awareness, social media influence, or the green marketing mix independently, while limited studies have investigated the combined influence of digital marketing, social media engagement, online consumer trust, and environmental awareness within a single framework. Furthermore, the impact of digital marketing tools such as social media advertising, influencer marketing, online reviews, and sustainability-focused digital campaigns on green consumer behaviour remains insufficiently explored. Consumer trust in digital sustainability communication, particularly the effects of greenwashing, misleading environmental claims, and misinformation, has also received limited empirical attention. Moreover, most studies have been conducted in specific industries or regions outside Kerala, resulting in a lack of evidence from the Kerala context despite its high digital literacy and increasing environmental awareness. Therefore, the present study seeks to address these gaps by examining the impact of digital marketing on green consumer behaviour among consumers in Kerala, thereby providing empirical evidence and practical insights for marketers and policymakers to promote sustainable consumption.

4. Statement of the Problem

The rapid expansion of digital technologies has transformed consumer purchasing behaviour by providing easy access to sustainability information through social media, e-commerce platforms, online reviews, and



digital advertisements. Although environmental awareness has increased considerably, consumers often face difficulties in identifying genuinely sustainable products due to misleading environmental claims, information overload, and greenwashing. While digital marketing has the potential to promote environmentally responsible consumption, it may also create confusion regarding the authenticity of green products.

Despite Kerala's high literacy rate and increasing digital adoption, there is limited empirical evidence regarding how digital platforms influence green consumer behaviour. Therefore, this study seeks to examine whether digital engagement significantly influences green purchasing behaviour and to identify the factors that encourage or discourage sustainable consumption among consumers in Kerala.

5. Objectives of the Study

1. To analyse the level of green consumer behaviour among consumers in Kerala.
2. To examine the influence of digital marketing on green purchase behaviour.
3. To investigate the role of social media and online reviews in promoting sustainable consumption.
4. To examine the association between digital engagement and green consumer behaviour.

6. Research Hypotheses

H₀: There is no significant association between digital engagement and green consumer behaviour among consumers in Kerala.

H₁: There is a significant positive association between digital engagement and green consumer behaviour among consumers in Kerala.

7. Research Methodology

7.1 Research Design

The study adopts a descriptive and analytical research design to examine the influence of digital platforms on green consumer behaviour among consumers in Kerala.

7.2 Data Sources

The study is based primarily on primary data collected through a structured questionnaire. Secondary data were collected from research journals, books, government reports, conference proceedings and authenticated online databases related to sustainable marketing, digital marketing and green consumer behaviour.

7.3 Sample Size and Sample Unit

The study consists of 200 respondents selected from different districts of Kerala.

The sample unit comprises consumers who frequently use digital platforms such as social media, e-commerce websites and online shopping applications.

7.4 Sampling Technique

Convenience Sampling was adopted for selecting respondents.

7.5 Statistical Tools

The following statistical tools were used:

- Percentage Analysis
- Chi-Square (χ^2) Test

Percentage analysis was used to analyse consumer characteristics and purchasing behaviour, while the Chi-Square test was applied to determine the association between digital engagement and green consumer behaviour.

8. Analysis and Interpretation

Percentage Analysis

The study analyses responses from 200 consumers to understand the influence of digital technologies on green purchasing behaviour.

Table 1 Age-wise Distribution of Respondents

Age Group	Number	Percentage
-----------	--------	------------

18–30 years	78	39%
31–45 years	62	31%
46–60 years	40	20%
Above 60 years	20	10%
Total	200	100%

Interpretation

The table indicates that 39% of the respondents belong to the 18–30 years age group, followed by 31% in the 31–45 years category. Only 10% of respondents are above 60 years. This indicates that younger consumers actively participate in digital platforms and are more likely to engage in green purchasing activities.

Table 2 Frequency of Purchasing Green Products

Purchase Frequency	Number	Percentage
Frequently	84	42%
Occasionally	66	33%
Rarely	34	17%
Never	16	8%
Total	200	100%

Interpretation

The above table reveals that 42% of respondents frequently purchase environmentally friendly products, while 33% purchase them occasionally. Only 8% reported that they never purchase green products. This suggests increasing consumer interest in sustainable products.

Table 3 Digital Platforms Influencing Green Purchases



Digital Platform	Number	Percentage
Social Media	76	38%
E-commerce Websites	52	26%
Online Reviews	40	20%
Company Websites	20	10%
Environmental Blogs	12	6%
Total	200	100%

Interpretation

The findings indicate that social media (38%) is the most influential source encouraging green purchases, followed by e-commerce platforms (26%) and online customer reviews (20%). This demonstrates the importance of digital communication in promoting sustainable consumption.

Table 4 Factors Influencing Green Purchase Decisions

Factor	Number	Percentage
Environmental Concern	70	35%
Product Quality	48	24%
Eco-label Certification	36	18%
Brand Reputation	28	14%
Price	18	9%
Total	200	100%

Interpretation

Environmental concern is the most important factor influencing green purchases (35%), followed by product quality (24%). Eco-label certification (18%) also plays an important role in helping consumers identify environmentally responsible products.

Table 5 Major Challenges in Purchasing Green Products

Challenge	Number	Percentage
High Price	66	33%
Greenwashing	48	24%
Lack of Information	38	19%
Limited Availability	30	15%
Lack of Trust	18	9%
Total	200	100%

Interpretation

The results reveal that high product prices (33%) are the major obstacle preventing consumers from purchasing green products. Greenwashing (24%) and lack of reliable information (19%) also discourage sustainable purchasing behaviour.

Table 6 Influence of Social Media on Environmental Awareness

Response	Number	Percentage
Strongly Agree	64	32%
Agree	78	39%
Neutral	30	15%

Disagree	20	10%
Strongly Disagree	8	4%
Total	200	100%

Interpretation

The table shows that 71% of respondents either agree or strongly agree that social media has increased their environmental awareness. This indicates that digital platforms play a significant role in educating consumers about sustainable consumption.

Table 7 Digital Engagement and Green Consumer Behaviour

Digital Engagement	High Green Behaviour	Low Green Behaviour	Total
High Engagement	88	22	110
Low Engagement	34	56	90
Total	122	78	200

Chi-Square Analysis

Hypotheses

H₀: There is no significant association between digital engagement and green consumer behaviour.

H₁: There is a significant association between digital engagement and green consumer behaviour.

Results

Calculated $\chi^2 = 34.82$

Table Value (df = 1, $\alpha = 0.05$) = 3.84

Interpretation

Since the calculated Chi-Square value (34.82) is greater than the table value (3.84), the null hypothesis is rejected.

Therefore, there is a statistically significant positive association between digital engagement and green consumer behaviour. Consumers who actively engage with digital platforms are more likely to exhibit environmentally responsible purchasing behaviour than those with lower digital engagement.

9. Findings

The study examined the influence of digital platforms on green consumer behaviour among consumers in Kerala. Based on the analysis, the following findings were obtained:

- 39% of the respondents belong to the 18–30 years age group, indicating that younger consumers are more actively engaged in digital platforms and sustainable purchasing activities.
- A significant proportion (42%) of respondents frequently purchase green products, reflecting a growing preference for environmentally friendly products.
- Social media (38%) emerged as the most influential digital platform affecting green purchasing decisions, followed by e-commerce websites (26%) and online customer reviews (20%).
- Environmental concern (35%) is the primary factor motivating consumers to purchase eco-friendly products, followed by product quality (24%) and eco-label certification (18%).
- The major barriers to green purchasing are high product prices (33%), greenwashing (24%), lack of reliable sustainability information (19%), and limited product availability (15%).
- Nearly 71% of respondents agree that social media has significantly increased their environmental awareness and knowledge about sustainable products.
- Consumers who actively use digital platforms demonstrate higher levels of green purchasing behaviour compared to consumers with lower digital engagement.
- The Chi-Square analysis ($\chi^2 = 34.82$, $p < 0.05$) confirms a statistically significant positive association between digital engagement and green consumer behaviour.
- Online reviews and eco-labels positively influence consumer trust and encourage environmentally responsible purchasing decisions.
- Digital marketing has become an effective medium for promoting sustainable consumption and increasing consumer awareness regarding environmental issues.



10. Suggestions

Based on the findings of the study, the following suggestions are proposed:

1. **Promote Authentic Sustainability Communication** Organisations should provide transparent and evidence-based environmental information instead of exaggerated marketing claims to build consumer trust.
2. **Strengthen Environmental Awareness Campaigns** Government agencies, educational institutions, and businesses should organise digital awareness campaigns to educate consumers about sustainable consumption and environmental protection.
3. **Reduce Greenwashing Practices** Regulatory authorities should strengthen monitoring mechanisms and impose stricter penalties on misleading environmental advertisements.
4. **Improve Eco-labelling Standards** Standardised and easily understandable environmental certification labels should be promoted to help consumers identify genuinely sustainable products.
5. **Increase Availability of Green Products** Retailers and e-commerce companies should improve the availability of environmentally friendly products across urban and rural markets.
6. **Enhance Digital Consumer Education** Consumers should be educated to critically evaluate sustainability information available on digital platforms and identify misleading environmental claims.
7. **Offer Price Incentive** Governments may encourage sustainable consumption through subsidies, tax benefits, or promotional incentives for eco-friendly products.
8. **Utilise Artificial Intelligence Responsibly** Businesses should employ AI-driven recommendation systems to promote sustainable products while maintaining transparency and consumer privacy.
9. **Encourage Corporate Sustainability Reporting** Organisations should regularly publish sustainability reports detailing their environmental initiatives and measurable achievements.
10. **Collaborate with Environmental Influencers**

Businesses can collaborate with credible environmental advocates and sustainability influencers to promote responsible consumer behaviour through digital platforms.

11. Limitations of the Study

- The study is limited to consumers in Kerala; therefore, the findings may not be generalisable to other regions.
- The study relies on self-reported responses, which may be influenced by respondent bias.



- Only primary variables related to digital engagement and green consumer behaviour were considered.

12. Conclusion

The digital era has significantly transformed consumer behaviour by making sustainability information more accessible through social media, e-commerce platforms, mobile applications, and online communities. These digital platforms have become effective tools for increasing environmental awareness and encouraging consumers to adopt sustainable purchasing practices. The findings of the study indicate that consumers who actively engage with digital platforms are more likely to exhibit green consumer behaviour. Environmental concern, social media influence, online reviews, and eco-label certifications play a crucial role in shaping consumers' green purchase decisions. However, challenges such as greenwashing, high prices of eco-friendly products, and the lack of reliable sustainability information continue to hinder the adoption of sustainable consumption. The study highlights the need for businesses to adopt transparent and authentic sustainability practices rather than relying on misleading environmental claims. Policymakers should strengthen regulations against greenwashing, promote environmental education, and encourage the use of credible eco-labelling systems to build consumer trust. Overall, the study concludes that digital technologies have immense potential to promote responsible consumption and support the achievement of the United Nations Sustainable Development Goals (SDGs), particularly SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 9 (Industry, Innovation and Infrastructure). By integrating ethical digital marketing with genuine sustainability initiatives, organisations can enhance consumer trust, strengthen brand loyalty, and contribute to long-term environmental sustainability.

References (APA 7th Edition)

- Fernandes, S., Sathish, M., & Shrivastava, P. (2024). Effect of consciousness in sustainable consumption habits on purchase intention of green products: Comparison study between India and USA. *Indian Journal of Marketing*, 54(10), 8–24. <https://doi.org/10.17010/ijom/2024/v54/i10/174602>
- Sharma, R. R., & Kaur, T. (2024). Determinants of the effects of sustainability marketing on consumers' purchase intentions: An empirical investigation. *IIM Kozhikode Society & Management Review*, 13(2), 228–241. <https://doi.org/10.1177/22779752211009005>
- Taufique, K. M. R., & Vaithianathan, S. (2018). A fresh look at understanding green consumer behavior among young urban Indian consumers through the lens of theory of planned behavior. *Journal of Cleaner Production*, 183, 46–55. <https://doi.org/10.1016/j.jclepro.2018.02.097>



Verma, V. K., & Chandra, B. (2018). An application of theory of planned behavior to predict young Indian consumers' green hotel visit intention. *Journal of Cleaner Production*, 172, 1152–1162. <https://doi.org/10.1016/j.jclepro.2017.10.047>

Boobalan, K., & Nachimuthu, G. S. (2020). Organic consumerism: A comparison between India and the USA. *Journal of Retailing and Consumer Services*, 53, 101988. <https://doi.org/10.1016/j.jretconser.2019.101988>

Sharief, Z., & Panghal, A. (2023). Sustainable consumption: Consumer behavior when purchasing sustainability-labeled food products. *Indian Journal of Marketing*, 53(8), 47–65. <https://doi.org/10.17010/ijom/2023/v53/i8/172975>