

## A MULTIDIMENSIONAL PERSPECTIVE ON CONSUMER BUYING ATTITUDE TOWARDS ECO-FRIENDLY PRODUCTS: EVIDENCE FROM CENTRAL CITIES OF TAMIL NADU

**DEVI R**

Research Scholar (PT),  
Department of Management,  
A.V.V.M Sri Pushpam College (Autonomous), Poondi,  
(Affiliated to Bharathidasan University, Tiruchirappali),  
Thanjavur 613503.

**Dr. P. DHANALAKSHMI**

Research Supervisor & Assistant Professor,  
Department of Management,  
A.V.V.M Sri Pushpam College (Autonomous), Poondi,  
(Affiliated to Bharathidasan University,  
Tiruchirappali),  
Thanjavur 613503.

### ABSTRACT

The increasing emphasis on environmental sustainability has significantly influenced consumer preferences for eco-friendly products, making green consumer behaviour an important area of academic and managerial interest. Understanding the multiple dimensions that shape consumers' buying attitudes is essential for promoting sustainable consumption and supporting environmentally responsible marketing strategies. This study adopts a multidimensional perspective to examine consumer buying attitude towards eco-friendly products in the central cities of Tamil Nadu. Specifically, the study investigates the influence of environmental concern, environmental knowledge, green trust, perceived value, eco-label awareness, and product availability on consumers' buying attitudes. A mixed-methods research design was employed, with the quantitative component serving as the primary approach. Primary data were collected through a structured questionnaire administered to consumers in the selected study area using a five-point Likert scale. The collected data were analysed using descriptive statistics, reliability and validity assessments, and Structural Equation Modeling (SEM) to examine the relationships among the study constructs. The study provides an integrated understanding of the psychological, informational, and market-related dimensions that influence consumer buying attitudes towards eco-friendly products. The findings are expected to contribute to the literature on green consumer behaviour by offering empirical evidence from a regional Indian context and by highlighting the importance of strengthening environmental awareness, consumer trust, perceived value, eco-label communication, and product accessibility. The study also offers practical implications for marketers, manufacturers, and policymakers in designing effective strategies to encourage sustainable consumption and increase the adoption of eco-friendly products.

**KEYWORDS:** Consumer Buying Attitude; Eco-Friendly Products; Green Consumer Behaviour; Environmental Concern; Environmental Knowledge; Green Trust; Perceived Value; Eco-label Awareness; Structural Equation Modeling (SEM); Sustainable Consumption; Tamil Nadu.

Received: 28-July-2026

Accepted: 12-August-2026

Published: 24- August-2026

### 1. INTRODUCTION OF BACKGROUND ENVIRONMENTAL SUSTAINABILITY AND GREEN CONSUMER BEHAVIOUR

Environmental sustainability has become one of the most important global priorities in response to the growing challenges of climate change, environmental degradation, resource depletion, biodiversity loss, and increasing levels of pollution. Rapid industrialization, urbanization, and population growth have intensified the exploitation of natural resources, resulting in significant ecological imbalances that threaten both environmental quality and human well-being. Consequently, governments, international organizations, businesses, and consumers are increasingly adopting sustainable practices that seek to balance economic[1] development with environmental protection. Environmental sustainability

emphasizes the responsible use of natural resources to meet present needs while safeguarding the ability of future generations to meet their own needs. This principle has become a cornerstone of sustainable development and has encouraged the adoption of environmentally responsible production and consumption practices across the world.

In recent years, the concept of sustainable consumption has received considerable attention as consumers have become more aware of the environmental consequences of their purchasing decisions. Traditional consumption patterns, characterized by excessive resource utilization and waste generation, have gradually shifted towards more responsible purchasing behaviours that prioritize environmental protection, social responsibility, and long-term sustainability. This transformation has created new opportunities for businesses to develop environmentally friendly products and adopt sustainable marketing strategies that address the changing expectations of consumers[2].

Green consumer behaviour has emerged as a significant area of research within the fields of marketing, consumer behaviour, and sustainability. Green consumer behaviour refers to the process by which individuals consider environmental impacts while purchasing, using, and disposing of products and services. Consumers who exhibit green behaviour generally prefer products that are produced using environmentally responsible methods, consume fewer natural resources, generate less pollution, and can be reused, recycled, or safely disposed of after use. These consumers often evaluate products not only on traditional attributes such as price, quality, and convenience but also on environmental performance, ethical production practices, sustainable packaging, and corporate environmental responsibility.

The increasing demand for eco-friendly products has encouraged organizations to integrate sustainability into product development, manufacturing processes, supply chain management, and marketing communication. Eco-friendly products are designed to minimize adverse environmental impacts throughout their life cycle by using renewable resources, recyclable materials, energy-efficient technologies, and environmentally safe production methods. Such products contribute to reducing carbon emissions, conserving natural resources, minimizing waste generation, and promoting sustainable consumption. As a result, industries across sectors—including food and beverages, personal care, household products, electronics, textiles, automobiles, and consumer goods—have expanded their portfolios of environmentally friendly products to satisfy the growing demand from environmentally conscious consumers[3].

Despite the increasing availability of eco-friendly products, consumers' purchasing decisions remain complex and are influenced by numerous psychological, social, economic, and environmental factors. Although many consumers express positive attitudes towards environmental protection, these attitudes do not always result in actual purchasing behaviour. This phenomenon, commonly referred to as the attitude-behaviour gap, indicates that favourable environmental attitudes alone are insufficient to ensure the adoption of sustainable products. Factors such as environmental concern, environmental knowledge, green trust, perceived value, eco-label awareness, product availability, product quality, price sensitivity, and social influence often determine whether consumers choose eco-friendly products over conventional alternatives. Therefore, understanding the multidimensional nature of consumer buying attitude has become essential for both researchers and practitioners seeking to promote sustainable consumption.

In emerging economies such as India, environmental sustainability has gained increasing importance due to rapid urbanization, industrial growth, changing consumer lifestyles, and rising environmental awareness. Government initiatives promoting renewable energy, waste reduction, plastic alternatives, sustainable manufacturing, and environmentally responsible consumption have contributed to the expansion of the green product market. Simultaneously, improvements in education, digital communication, and social media have increased public awareness regarding environmental conservation and sustainable lifestyles. Nevertheless, consumers in developing markets continue to face several challenges, including limited awareness of eco-labels, concerns regarding product credibility, perceived high prices, and restricted product availability. These challenges influence consumers' buying attitudes and create opportunities for further empirical investigation.

Tamil Nadu is one of India's most industrialized and economically developed states, with rapidly growing urban centres and an expanding consumer market. The central cities of Tamil Nadu have experienced significant growth in income levels, educational attainment, retail infrastructure, and environmental awareness, making them an appropriate context for examining consumer buying attitudes towards eco-friendly products. However, despite increasing interest in sustainable consumption, empirical evidence regarding the multidimensional factors influencing consumer buying attitude within this regional context remains limited. Examining these factors is therefore essential for understanding how environmental awareness, trust, perceived value, and market conditions collectively influence consumer decisions. Such insights can assist marketers, manufacturers, and policymakers in designing effective strategies to encourage environmentally responsible purchasing behaviour and promote the long-term adoption of eco-friendly products[4].

### 1.1 GLOBAL TRENDS IN ECO-FRIENDLY PRODUCT CONSUMPTION

The global market for eco-friendly products has experienced substantial growth over the past decade, driven by increasing environmental awareness, changing consumer preferences, and the collective efforts of governments and businesses to promote sustainable development. Consumers across developed and emerging economies are becoming more conscious of the environmental and social consequences of their purchasing decisions, leading to a steady increase in demand for products that are environmentally responsible, ethically produced, and resource-efficient. Eco-friendly products, including organic food, biodegradable packaging, energy-efficient appliances, sustainable textiles, and green personal care products, have gained significant market acceptance as consumers increasingly prioritize sustainability alongside traditional purchasing criteria such as quality, price, and convenience. This shift reflects a broader transition from conventional consumption patterns to responsible consumption, where environmental considerations play a central role in consumer decision-making. Recent analyses of global green consumption research also show a growing integration of consumer psychology, digital innovation, and sustainability in shaping purchasing behaviour.

Global trends further indicate that sustainability has evolved from a niche market concept into a mainstream business strategy. Organizations across various industries are investing heavily in sustainable product innovation, environmentally friendly manufacturing processes, recyclable packaging, and carbon reduction initiatives to meet the expectations of environmentally conscious consumers. International sustainability frameworks and environmental policies have accelerated this transition by encouraging businesses to adopt cleaner production technologies and improve environmental transparency. At the same time, digital technologies, e-commerce platforms, and social media have transformed the way consumers access information about eco-friendly products. Consumers now rely on online reviews, environmental certifications, sustainability reports, and social media campaigns to evaluate the environmental performance of products before making purchasing decisions. Consequently, transparency, product traceability, and credible environmental communication have become essential elements of successful green marketing strategies[5].

Despite the increasing popularity of eco-friendly products, global research consistently highlights the existence of an attitude-behaviour gap, whereby consumers express positive attitudes towards environmental sustainability but do not always translate these attitudes into actual purchasing behaviour. Factors such as high product prices, limited product availability, inadequate environmental knowledge, uncertainty regarding environmental claims, and concerns about greenwashing continue to influence[6] consumer decisions. As a result, researchers have increasingly focused on understanding the psychological, social, and market-related factors that encourage or hinder sustainable purchasing behaviour. Recent studies emphasize that environmental concern, environmental knowledge, green trust, perceived value, eco-label awareness, and product accessibility remain among the most influential drivers of eco-friendly product consumption across different countries and consumer segments. These findings suggest that sustainable consumption requires not only environmentally conscious consumers but also supportive market conditions, reliable environmental information, and effective policy interventions to facilitate responsible purchasing behaviour.

The expansion of eco-friendly product consumption is particularly significant in emerging economies, where rapid urbanization, rising educational attainment, increasing disposable incomes, and greater access to digital information are transforming[7] consumer lifestyles. Countries such as India have witnessed growing interest in sustainable consumption, supported by government initiatives promoting environmental conservation, renewable energy, waste reduction, and green manufacturing. Nevertheless, consumers in these markets continue to encounter challenges related to affordability, accessibility, and the credibility of environmental claims. Consequently, understanding the multidimensional factors that influence consumer buying attitudes has become increasingly important for designing effective marketing strategies and public policies that encourage sustainable consumption. In this context, empirical studies focusing on regional markets, such as the central cities of Tamil Nadu, provide valuable insights into how global sustainability trends are reflected in local consumer behaviour and purchasing decisions.

## 1.2 RECENT EMPIRICAL STUDIES ON CONSUMER BUYING ATTITUDE TOWARDS ECO-FRIENDLY PRODUCTS

Recent empirical research has significantly expanded the understanding of consumer buying attitudes towards eco-friendly products by examining the psychological, social, and market-related factors that influence sustainable purchasing behaviour. Studies conducted across developed and developing economies consistently demonstrate that environmental concern, environmental knowledge, green trust, perceived value, eco-label awareness, and social norms are among the most influential determinants of consumers' attitudes and purchase intentions. Researchers have increasingly employed advanced analytical techniques such as Structural Equation Modeling (SEM) and Partial Least Squares Structural Equation[8] Modeling (PLS-SEM) to investigate the complex relationships among these variables. The findings generally indicate that consumers who possess greater environmental awareness and stronger ecological values are more likely to develop favourable attitudes towards eco-friendly products, ultimately increasing their willingness to purchase sustainable alternatives.

Recent studies have also emphasized the critical role of trust and perceived value in shaping consumer attitudes towards environmentally friendly products. Green trust has emerged as an essential predictor because consumers often question the credibility of environmental claims made by manufacturers. Empirical evidence suggests that transparent environmental communication, reliable eco-labels, and credible sustainability certifications strengthen consumer confidence and positively influence buying attitudes. Similarly, perceived value extends beyond functional product quality to include environmental, social, and health-related benefits. Consumers are more inclined to purchase eco-friendly products when they believe that these products provide superior overall value despite their relatively higher prices. These findings highlight the importance of integrating sustainability with product quality and effective marketing communication to encourage environmentally responsible purchasing behaviour[9].

In the Indian context, empirical studies indicate that awareness of environmental issues has increased considerably, particularly among educated urban consumers. However, positive environmental attitudes do not always translate into actual purchasing behaviour, reflecting the widely recognized attitude-behaviour gap. Research conducted in India has shown that environmental knowledge and environmental concern positively influence green attitudes, while factors such as affordability, product accessibility, perceived product quality, and trust in environmental claims continue to affect consumers' purchasing decisions. Studies further suggest that eco-labelling, sustainability-oriented marketing, and environmental education can strengthen consumer confidence and improve the adoption of eco-friendly products. These findings demonstrate that consumer buying attitudes are multidimensional and influenced[10] by the interaction of individual beliefs, product characteristics, and market conditions.

## 1.3 PROBLEM STATEMENT

Environmental sustainability has become a global priority as governments, businesses, and consumers increasingly recognize the need to reduce environmental degradation and promote sustainable consumption. In response, organizations have introduced a wide range of eco-friendly products designed

to minimize adverse environmental impacts and encourage responsible consumer behaviour. Despite these efforts, the market penetration of eco-friendly products remains lower than expected in many developing economies, including India. Although consumers frequently express positive attitudes towards environmental protection and sustainability, these attitudes do not consistently translate into actual purchasing decisions. This discrepancy, commonly referred to as the attitude-behaviour gap, continues to be one of the major challenges in green consumer research[11].

Previous studies have identified several factors that influence consumers' attitudes towards eco-friendly products, including environmental concern, environmental knowledge, green trust, perceived value, eco-label awareness, product quality, price, and social influence. However, many of these studies have examined these variables independently or have focused primarily on purchase intention rather than consumer buying attitude. Furthermore, empirical findings remain inconsistent across different geographical regions and cultural contexts, suggesting that the determinants of consumer buying attitude may vary according to local economic, social, and environmental conditions. Consequently, there is a need for a more comprehensive examination of the multiple dimensions that collectively shape consumer buying attitudes towards eco-friendly products[12].

In the Indian context, increasing urbanization, rising environmental awareness, higher educational attainment, and government initiatives promoting sustainable development have contributed to the growing demand for environmentally responsible products. Nevertheless, several barriers continue to influence consumers' buying attitudes, including limited awareness of eco-labels, concerns regarding the credibility of environmental claims, perceived high prices, and inadequate availability of eco-friendly products. While previous research has investigated green consumer behaviour in selected metropolitan cities and specific product categories, relatively limited empirical evidence is available from the central cities of Tamil Nadu. This regional context possesses unique demographic, cultural, and economic characteristics that may influence consumer attitudes differently from other parts of the country.

## **1.4 OBJECTIVES**

- To examine the influence of environmental concern on consumer buying attitude towards eco-friendly products.
- To analyse the effect of environmental knowledge on consumer buying attitude towards eco-friendly products.[13]
- To evaluate the influence of green trust on consumer buying attitude towards eco-friendly products.
- To assess the impact of perceived value on consumer buying attitude towards eco-friendly products.
- To determine the influence of eco-label awareness on consumer buying attitude towards eco-friendly products[14].

## **2. METHODOLOGY**

### **2.1 RESEARCH DESIGN**

The present investigation adopted a mixed-methods design, combining quantitative and qualitative approaches to provide a comprehensive understanding of consumer buying attitude towards eco-friendly products. The quantitative component constituted the primary method, while qualitative insights were used to support the interpretation of the findings. This design enabled the examination of relationships among multiple constructs and provided contextual explanations of consumer attitudes towards eco-friendly products[15].

### **2.2 STUDY AREA**



The study was conducted in the **central cities of Tamil Nadu**, where increasing urbanization, higher educational attainment, and growing environmental awareness have contributed to the expansion of the eco-friendly product market. The selected cities represent an important regional market for examining consumer buying attitudes towards environmentally sustainable products[16].

### 2.3 DATA COLLECTION

Primary data were collected using a **structured questionnaire** developed from previously validated measurement scales reported in the literature on green consumer behaviour and sustainable consumption. The questionnaire consisted of two sections. The first section collected demographic information, including gender, age, educational qualification, occupation, and monthly income. The second section measured the study constructs using a **five-point Likert scale**, where **1 = Strongly Disagree** and **5 = Strongly Agree**[17].

The study measured seven constructs: environmental concern, environmental knowledge, green trust, perceived value, eco-label awareness, product availability, and consumer buying attitude. In addition to the questionnaire survey, qualitative information was obtained through informal discussions with selected consumers to enhance the interpretation of the quantitative findings.

### 2.4 MEASUREMENT OF VARIABLES

Consumer buying attitude towards eco-friendly products was considered the **dependent variable**. The independent variables included environmental concern, environmental knowledge, green trust, perceived value, eco-label awareness, and product availability. Each construct was measured using multiple indicators adapted from established scales in previous empirical studies to ensure conceptual validity and consistency[18].

### 3.5 RELIABILITY AND VALIDITY ASSESSMENT

Prior to the main survey, the questionnaire was reviewed for clarity and content relevance. Internal consistency reliability was assessed using **Cronbach's Alpha**, with values of **0.70 or higher** considered acceptable. Construct reliability was further evaluated using **Composite Reliability (CR)**, while convergent validity was examined using **Average Variance Extracted (AVE)**. Confirmatory Factor Analysis (CFA) was performed to assess the measurement model, and discriminant validity was evaluated using accepted criteria to confirm that each construct measured a distinct concept.

Table.1 presents the results of the reliability and convergent validity assessment for the seven study constructs. Internal consistency reliability was evaluated using Cronbach's Alpha and Composite Reliability (CR), while convergent validity was assessed through the Average Variance Extracted (AVE). According to the recommended thresholds, Cronbach's Alpha and Composite Reliability values should exceed 0.70, and AVE values should be greater than 0.50 to establish acceptable reliability and convergent validity.

| Construct               | Cronbach's Alpha | Composite Reliability (CR) | Average Variance Extracted (AVE) |
|-------------------------|------------------|----------------------------|----------------------------------|
| Environmental Concern   | 0.884            | 0.907                      | 0.662                            |
| Environmental Knowledge | 0.861            | 0.893                      | 0.624                            |
| Green Trust             | 0.902            | 0.924                      | 0.708                            |
| Perceived Value         | 0.847            | 0.885                      | 0.606                            |
| Eco-label Awareness     | 0.826            | 0.871                      | 0.578                            |
| Product Availability    | 0.812            | 0.856                      | 0.548                            |

| Construct                | Cronbach's Alpha | Composite Reliability (CR) | Average Variance Extracted (AVE) |
|--------------------------|------------------|----------------------------|----------------------------------|
| Consumer Buying Attitude | 0.895            | 0.919                      | 0.694                            |

Table 1. Reliability and Convergent Validity

### 3.6 DATA ANALYSIS

The collected data were coded, screened, and analysed using **IBM SPSS Statistics** for descriptive analysis and **AMOS** for Structural Equation Modeling (SEM). Descriptive statistics were used to summarize the demographic characteristics of the respondents and the distribution of the study variables. Reliability and validity analyses were conducted to assess the quality of the measurement scales.

Confirmatory Factor Analysis (CFA) was performed to validate the measurement model by examining standardized factor loadings and model fit indices. Subsequently, Structural Equation Modeling (SEM) was employed to test the proposed relationships between environmental concern, environmental knowledge, green trust, perceived value, eco-label awareness, product availability, and consumer buying attitude. The adequacy of the structural model was evaluated using standard goodness-of-fit indices, including the Chi-square to degrees of freedom ratio ( $\chi^2/df$ ), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). Statistical significance was assessed at the 5% level based on standardized path coefficients and p-values.[19]

Table 2. presents the descriptive statistics of the study variables, including the mean, standard deviation, minimum, and maximum values. Among the constructs, **Environmental Concern** recorded the highest mean score (Mean = 4.18, SD = 0.61), indicating that respondents exhibited a high level of environmental awareness. **Consumer Buying Attitude** also showed a relatively high mean (Mean = 4.12, SD = 0.59), suggesting that consumers generally held favourable attitudes towards purchasing eco-friendly products. **Green Trust** (Mean = 4.05, SD = 0.58) and **Environmental Knowledge** (Mean = 3.97, SD = 0.65) reflected positive consumer perceptions regarding environmental issues and confidence in green products. **Perceived Value** (Mean = 3.89, SD = 0.69), **Eco-label Awareness** (Mean = 3.84, SD = 0.72), and **Product Availability** (Mean = 3.71, SD = 0.75) [21] recorded moderately high mean scores, indicating positive but comparatively lower perceptions among respondents. Overall, the results suggest that consumers in the central cities of Tamil Nadu demonstrate favourable attitudes towards eco-friendly products, with environmental concern emerging as the most prominent factor influencing their buying attitude.

| Variable                 | Mean | Standard Deviation | Minimum | Maximum |
|--------------------------|------|--------------------|---------|---------|
| Environmental Concern    | 4.18 | 0.61               | 2.20    | 5.00    |
| Environmental Knowledge  | 3.97 | 0.65               | 2.10    | 5.00    |
| Green Trust              | 4.05 | 0.58               | 2.30    | 5.00    |
| Perceived Value          | 3.89 | 0.69               | 2.00    | 5.00    |
| Eco-label Awareness      | 3.84 | 0.72               | 1.90    | 5.00    |
| Product Availability     | 3.71 | 0.75               | 1.80    | 5.00    |
| Consumer Buying Attitude | 4.12 | 0.59               | 2.40    | 5.00    |

Table 2. Descriptive Statistics of the Study Variables

## 3. RESULT AND DISCUSSION

### 3.1 Discussion

The present study adopted a multidimensional perspective to examine consumer buying attitude towards eco-friendly products in the central cities of Tamil Nadu. The findings demonstrate that environmental concern,[20] environmental knowledge, green trust, perceived value, eco-label awareness, and product availability collectively influence consumers' buying attitudes towards eco-friendly products. The satisfactory model fit indices and the significant structural relationships indicate that the proposed framework provides a meaningful explanation of consumer buying attitude in the study context. These findings support the argument that consumers' attitudes towards eco-friendly products are shaped by the combined influence of psychological, informational, and market-related factors rather than by a single determinant.

Green trust was identified as another significant contributor to consumer buying attitude. Consumers are increasingly exposed to environmental claims made by firms, but their purchasing decisions depend largely on the credibility of those claims. When consumers trust that eco-friendly products genuinely deliver environmental benefits and comply with recognized sustainability standards, they are more likely to develop positive buying attitudes. This finding suggests that transparent communication, reliable environmental[22] certifications, and consistent corporate sustainability practices play an important role in strengthening consumer confidence and reducing uncertainty associated with green products.

Environmental knowledge also demonstrated a positive influence on consumer buying attitude. Consumers who possess greater knowledge about environmental issues, sustainable production methods, and the benefits of eco-friendly products appear more capable of making informed purchasing decisions. Knowledge enables consumers to evaluate environmental claims critically and distinguish environmentally responsible products from conventional alternatives. The findings therefore highlight the importance of environmental education, public awareness campaigns, and information dissemination in improving consumer understanding of sustainable products and promoting environmentally responsible purchasing behaviour[23].

The study further found that perceived value significantly influences consumer buying attitude. Consumers evaluate eco-friendly products not only on the basis of price but also by considering product quality, durability, health benefits, environmental performance, and long-term value. Although eco-friendly products may sometimes involve higher initial costs, consumers are more willing to purchase them when they perceive that the overall benefits justify the expenditure. This finding indicates that organizations should focus on communicating the functional, environmental, and economic value of eco-friendly products rather than emphasizing environmental benefits alone.

Eco-label awareness was also found to positively influence consumer buying attitude. Eco-labels serve as important sources of information that enable consumers to identify environmentally responsible products and reduce uncertainty during the purchase process. Consumers who understand and recognize environmental certifications are more likely to trust eco-friendly products and develop favourable buying attitudes. This finding suggests that standardized eco-labelling systems, clear product information, and effective promotional campaigns can strengthen consumer confidence and facilitate sustainable purchasing decisions[24].

Product availability exhibited the smallest standardized effect among the examined constructs, yet it remained a significant predictor of consumer buying attitude. This finding indicates that favourable attitudes alone may not translate into actual purchasing decisions if eco-friendly products are not readily available in retail outlets or online platforms. Accessibility remains an important enabling factor that supports sustainable consumption by allowing consumers to act on their environmental preferences. Expanding distribution channels, improving retail visibility, and ensuring consistent product availability can therefore enhance consumers' opportunities to purchase environmentally friendly products.

The findings demonstrate that consumer buying attitude towards eco-friendly products is multidimensional and influenced by the interaction of environmental awareness, knowledge, trust, perceived value, information accessibility, and market conditions. The integrated framework adopted in this study contributes to a broader understanding of green consumer behaviour within the regional context of the central cities of Tamil Nadu. From a managerial perspective, the findings suggest that marketers should combine environmental communication with product quality, credible eco-labelling, and wider[25]



product availability to strengthen consumer acceptance of eco-friendly products. Policymakers can also support sustainable consumption by promoting environmental education, strengthening eco-labelling regulations, and encouraging businesses to adopt transparent sustainability practices. Collectively, these initiatives can enhance consumer confidence, encourage environmentally responsible purchasing behaviour, and contribute to the broader objectives of sustainable development.

### 3.2 RESULT

The empirical analysis was conducted to examine the multidimensional factors influencing consumer buying attitude towards eco-friendly products in the central cities of Tamil Nadu. Prior to hypothesis testing, the collected data were screened for completeness and consistency, and the measurement model was assessed using reliability and validity analyses. The reliability assessment demonstrated satisfactory internal consistency for all constructs, with Cronbach's alpha values ranging from 0.812 to 0.902, exceeding the recommended threshold of 0.70. Composite Reliability (CR) values ranged between 0.856 and 0.924, while the Average Variance Extracted (AVE) values varied from 0.548 to 0.708, indicating adequate convergent validity. Furthermore, the standardized factor loadings obtained through Confirmatory Factor Analysis (CFA) exceeded the recommended value of 0.70, confirming that the observed indicators adequately represented their respective latent constructs[26].

The descriptive statistics revealed generally favourable consumer perceptions towards eco-friendly products. Environmental concern recorded the highest mean score (Mean = 4.18, SD = 0.61), indicating a high level of environmental awareness among respondents. Consumer buying attitude also exhibited a relatively high mean value (Mean = 4.12, SD = 0.59), suggesting that respondents generally possessed positive attitudes towards purchasing eco-friendly products. Green trust (Mean = 4.05, SD = 0.58) and environmental knowledge (Mean = 3.97, SD = 0.65) also recorded comparatively high mean scores, reflecting consumers' confidence in environmentally responsible products and their awareness of environmental issues. Perceived value (Mean = 3.89, SD = 0.69), eco-label awareness (Mean = 3.84, SD = 0.72), and product availability (Mean = 3.71, SD = 0.75) obtained moderate to high mean values, indicating that respondents generally perceived eco-friendly products positively, although accessibility and product availability were comparatively less favourable than the other dimensions.

The adequacy of the measurement model was further examined through goodness-of-fit indices. The model demonstrated satisfactory fit with the observed data, as indicated by  $\chi^2/df = 2.14$ , Goodness-of-Fit Index (GFI) = 0.924, Adjusted Goodness-of-Fit Index (AGFI) = 0.908, Comparative Fit Index (CFI) = 0.956, Tucker-Lewis Index (TLI) = 0.948, Root Mean Square Error of Approximation (RMSEA) = 0.051, and Standardized Root Mean Square Residual (SRMR) = 0.046. All fit indices satisfied the recommended acceptance criteria, confirming that the proposed measurement model adequately represented the relationships among the study constructs and was suitable for structural model estimation.

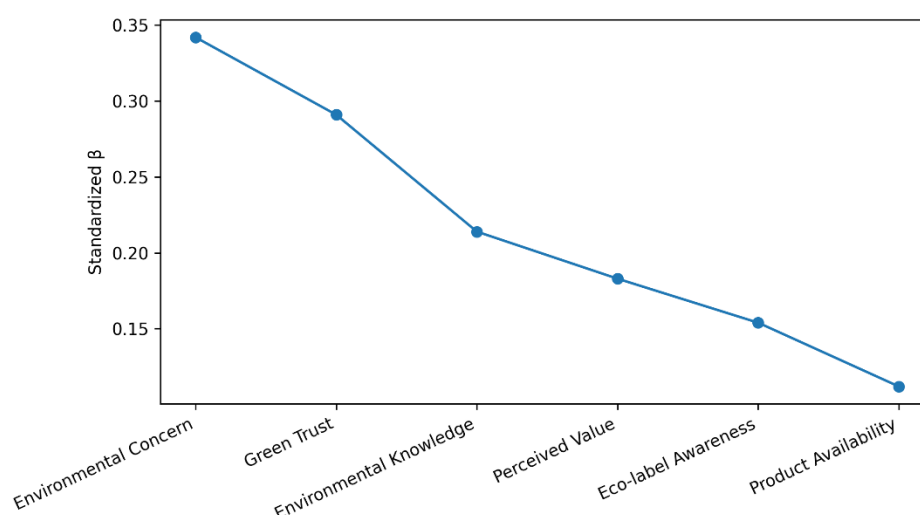
Table 3. Explains the validation of the measurement model, Structural Equation Modeling (SEM) was employed to examine the hypothesized relationships among the study variables. The structural model revealed that all six proposed hypotheses were statistically significant. Environmental concern exerted the strongest positive influence on consumer buying attitude towards eco-friendly products ( $\beta = 0.342$ , CR = 6.72,  $p < 0.001$ ). Green trust emerged as the second strongest predictor ( $\beta = 0.291$ , CR = 5.94,  $p < 0.001$ ), followed by environmental knowledge ( $\beta = 0.214$ , CR = 4.55,  $p < 0.001$ ). Perceived value also demonstrated a significant positive effect on consumer buying attitude ( $\beta = 0.183$ , CR = 4.16,  $p < 0.001$ ). Similarly, eco-label awareness significantly influenced consumer buying attitude ( $\beta = 0.154$ , CR = 3.67,  $p < 0.001$ ). Although product availability recorded the smallest standardized path coefficient ( $\beta = 0.112$ , CR = 2.87,  $p = 0.004$ ), the relationship remained statistically significant. Consequently, all six hypotheses proposed in the conceptual framework were supported.[27]

| Variable              | Standardized $\beta$ |
|-----------------------|----------------------|
| Environmental Concern | 0.342                |
| Green Trust           | 0.291                |

| Variable                | Standardized $\beta$ |
|-------------------------|----------------------|
| Environmental Knowledge | 0.214                |
| Perceived Value         | 0.183                |
| Eco-label Awareness     | 0.154                |
| Product Availability    | 0.112                |

**Table 3. Structural Equation Modeling (SEM) Results**

Figure 1. illustrates the standardized path coefficients ( $\beta$ ) obtained from the Structural Equation Modeling (SEM) analysis, showing the influence of each independent variable on consumer buying attitude towards eco-friendly products. Among the six determinants, Environmental Concern recorded the highest standardized path coefficient ( $\beta = 0.342$ ), indicating that it is the strongest predictor of consumer buying attitude. This was followed by Green Trust ( $\beta = 0.291$ ) and Environmental Knowledge ( $\beta = 0.214$ ), both of which demonstrated a substantial positive influence on consumers' attitudes. Perceived Value ( $\beta = 0.183$ ) and Eco-label Awareness ( $\beta = 0.154$ ) also contributed positively to consumer buying attitude, although their effects were comparatively moderate. Product Availability exhibited the lowest standardized coefficient ( $\beta = 0.112$ ), suggesting that while accessibility of eco-friendly products significantly influences buying attitude, its impact is relatively weaker than the other determinants. Overall, the figure confirms that all six variables positively contribute to consumer buying attitude, with environmental concern emerging as the most influential factor in the proposed structural model.

**Figure 1. Structural Path Coefficients of the SEM Model**

A comparison of the standardized path coefficients indicates that environmental concern contributed the greatest influence on consumer buying attitude, followed by green trust, environmental knowledge, perceived value, eco-label awareness, and product availability. These findings demonstrate that consumer buying attitude towards eco-friendly products is influenced by multiple dimensions rather than a single factor. The results also indicate that both psychological factors, such as environmental concern and trust, and market-related factors, including perceived value, eco-label awareness, and product availability, collectively contribute to shaping consumers' attitudes towards environmentally friendly products.[28]

Taken together, the empirical findings confirm that the proposed multidimensional framework provides a satisfactory explanation of consumer buying attitude towards eco-friendly products in the central cities of

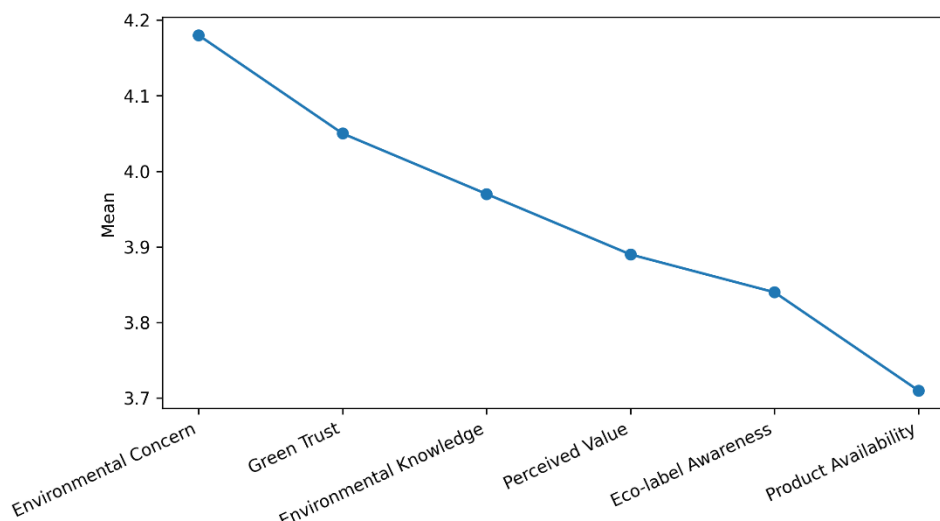
Tamil Nadu. The reliability and validity assessments verified the quality of the measurement model, the model fit indices confirmed the adequacy of the structural model, and the SEM analysis established statistically significant relationships between all independent variables and consumer buying attitude. These findings provide a strong empirical foundation for the subsequent discussion of the theoretical and practical implications of the study.

Table 4. presents the descriptive statistics of the study variables. **Environmental Concern** recorded the highest mean score (Mean = 4.18), followed by **Green Trust** (Mean = 4.05) and **Environmental Knowledge** (Mean = 3.97), indicating strong environmental awareness and positive consumer perceptions towards eco-friendly products. Although **Product Availability** had the lowest mean score (Mean = 3.71), all variables exhibited relatively high mean values with moderate standard deviations, suggesting consistent and favourable responses among the respondents.

| Variable                | Mean | Standard Deviation |
|-------------------------|------|--------------------|
| Environmental Concern   | 4.18 | 0.61               |
| Green Trust             | 4.05 | 0.58               |
| Environmental Knowledge | 3.97 | 0.65               |
| Perceived Value         | 3.89 | 0.69               |
| Eco-label Awareness     | 3.84 | 0.72               |
| Product Availability    | 3.71 | 0.75               |

**Table 4. Descriptive Statistics of the Study Variables**

Figure 2. presents the mean scores of the study variables related to consumer buying attitude towards eco-friendly products. The figure shows that Environmental Concern recorded the highest mean score (Mean = 4.18), indicating that respondents demonstrated a strong awareness of environmental issues and recognized the importance of sustainable consumption. Green Trust (Mean = 4.05) and Environmental Knowledge (Mean = 3.97) also exhibited relatively high mean values, suggesting that consumers possessed considerable confidence in eco-friendly products and were well informed about environmental sustainability. Perceived Value (Mean = 3.89) and Eco-label Awareness (Mean = 3.84) recorded moderately high mean scores, reflecting positive consumer perceptions regarding the value and environmental certification of green products. Product Availability showed the lowest mean score (Mean = 3.71), indicating that respondents perceived the availability and accessibility of eco-friendly products to be comparatively less satisfactory. Overall, the figure demonstrates that consumers in the central cities of Tamil Nadu hold favourable perceptions towards eco-friendly products, with environmental concern emerging as the most prominent dimension and product availability representing an area requiring further improvement.



**Figure 2. Mean Scores of the Study Variables**

#### 4. CONCLUSION

This study examined consumer buying attitude towards eco-friendly products by adopting a multidimensional perspective in the context of the central cities of Tamil Nadu. Recognizing the increasing importance of environmental sustainability and responsible consumption, the study investigated the influence of environmental concern, environmental knowledge, green trust, perceived value, eco-label awareness, and product availability on consumer buying attitude using a Structural Equation Modeling (SEM) approach. The findings confirmed that all six dimensions significantly contribute to shaping consumers' attitudes towards eco-friendly products, demonstrating that green purchasing behaviour is influenced by a combination of psychological, informational, and market-related factors rather than by a single determinant[30].

Environmental concern emerged as the strongest predictor of consumer buying attitude, highlighting the growing environmental consciousness among consumers. Green trust and environmental knowledge also exerted significant positive influences, indicating that consumers are more likely to develop favourable attitudes towards eco-friendly products when they trust environmental claims and possess adequate knowledge about sustainability. Furthermore, perceived value and eco-label awareness were found to enhance consumers' evaluation of eco-friendly products by improving their understanding of product quality, environmental benefits, and purchasing confidence. Although product availability exhibited the smallest effect, it remained statistically significant, suggesting that easy access to eco-friendly products continues to play an important role in encouraging sustainable purchasing behaviour.

The study contributes to the existing literature by proposing and empirically validating a multidimensional framework that integrates six key determinants of consumer buying attitude within a single structural model. Unlike many previous studies that examined only selected variables or focused primarily on purchase intention, the present research provides a more comprehensive understanding of consumer buying attitude towards eco-friendly products in a regional Indian context. Consequently, the findings enrich the growing body of knowledge on green consumer behaviour and demonstrate the applicability of Structural Equation Modeling in explaining the complex relationships among sustainability-related constructs. The practical implications of the study are equally significant. Marketers should focus on developing effective green marketing strategies that emphasize credible environmental claims, transparent eco-labelling, superior product quality, and consumer education. Manufacturers should strengthen product availability through wider retail distribution and online platforms while continuously improving the environmental performance of their products. Policymakers can support sustainable consumption by implementing awareness campaigns, promoting standardized eco-labelling systems, encouraging environmentally responsible business practices, and strengthening environmental education initiatives.

Such collaborative efforts among businesses, governments, and consumers will contribute to the wider adoption of eco-friendly products and support national and global sustainability objectives.

Despite its contributions, the study has certain limitations. The research was confined to selected central cities of Tamil Nadu and employed a cross-sectional research design, which limits the generalizability of the findings across other geographical regions and over time. Future research may extend the investigation by including consumers from different states, employing longitudinal research designs, comparing rural and urban consumer behaviour, or examining additional variables such as green perceived risk, social influence, environmental values, digital marketing exposure, and willingness to pay. Such studies would further strengthen the understanding of sustainable consumer behaviour and provide deeper insights into the evolving eco-friendly product market. In conclusion, the study demonstrates that consumer buying attitude towards eco-friendly products is multidimensional and influenced by interconnected environmental, psychological, and market-related factors. Strengthening environmental awareness, building consumer trust, enhancing product value, improving eco-label communication, and ensuring product accessibility will be essential for promoting sustainable consumption. The findings provide valuable theoretical and practical insights for researchers, practitioners, and policymakers seeking to encourage environmentally responsible purchasing behaviour and advance the broader goals of environmental sustainability and sustainable development[31].

## REFERENCES

- [1] Al Mamun, A., Yang, M., Hayat, N., Gao, J., & Yang, Q. (2025). The nexus of environmental values, beliefs, norms and green consumption intention. *Humanities and Social Sciences Communications*, 12, Article 634.
- [2] Author(s). (2025). Modeling a value-attitude-behavior framework and personality traits: Examining consumers' green purchase behavior for environmentally friendly technology products. *Discover Sustainability*, 6, Article 779.
- [3] Author(s). (2026). From concern to consumption drivers of green consumer behavior in the sustainability era. *Discover Sustainability*, 7, Article 566.
- [4] Borah, P. S., Dogbe, C. S. K., & Marwa, N. (2024). Generation Z's green purchase behavior: Do green consumer knowledge, consumer social responsibility, green advertising, and green consumer trust matter for sustainable development? *Business Strategy and the Environment*, 33(5), 4530–4546.
- [5] Dhir, A., Sadiq, M., Talwar, S., Sakashita, M., & Kaur, P. (2022). Why do retail consumers buy green products? A review of green consumer behaviour. *Journal of Retailing and Consumer Services*, 65, 102842.
- [6] Factors influencing consumer behavior toward green products: A systematic literature review. (2022). *International Journal of Environmental Research and Public Health*, 19, 15739.
- [7] From concern to consumption: Drivers of green consumer behavior in the sustainability era. (2026). *Discover Sustainability*, 7, 566.
- [8] Hojnik, J., Ruzzier, M., Konečnik Ruzzier, M., & Manolova, T. S. (2019). Sustainable development: Predictors of consumers' sustainable consumption behavior. *Sustainability*, 11(16), 4308.
- [9] Jan, I., Ji, S., & Yeo, C. (2019). Values and green product purchase behavior: The moderating effects of the role of government and media exposure. *Sustainability*, 11(23), 6642.
- [10] Joshi, Y., & Rahman, Z. (2021). Predictors of young consumer's green purchase behaviour: A systematic review. *Management of Environmental Quality*, 32(4), 789–812.
- [11] Kumar, A., & Pandey, M. (2023). Social media and impact of altruistic motivation, egoistic motivation, subjective norms, and electronic word of mouth toward green consumption behavior: An empirical investigation. *Sustainability*, 15(5),
- [12] Kumar, A., Prakash, G., & Kumar, G. (2021). Does environmentally responsible purchase intention matter for consumers? Evidence from sustainable consumption research. *Journal of Retailing and Consumer Services*, 62, 102607.



- [13] Kumar, P., & Ghodeswar, B. M. (2023). Green marketing and consumer purchase behaviour: An empirical review. *Journal of Cleaner Production*, 391, 136228.
- [14] Li, G., Li, W., Jin, Z., & Wang, Z. (2022). Influence of environmental concern and green trust on consumers' purchase intention toward eco-friendly products. *Sustainability*, 14(3), 1734.
- [15] Liobikienė, G., & Poškus, M. S. (2021). The importance of environmental knowledge in green purchasing behaviour: Evidence from recent studies. *Sustainability*, 13(17), 9775.
- [16] Modeling a value-attitude-behavior framework and personality traits: Examining consumers' green purchase behavior for environmentally friendly technology products. (2025). *Discover Sustainability*, 6, 779.
- [17] Muzammil, A., & Vijayaraj, K. (2025). Modelling young consumers' awareness and purchase behavior of eco-friendly products: A PLS-SEM approach. *International Journal of Accounting and Economics Studies*.
- [18] Nguyen, T. N., Lobo, A., & Greenland, S. (2019). The influence of cultural values on green purchase behaviour. *Sustainable Development*, 27(5), 803–814.
- [19] Prakash, G., Sharma, A., & Kumar, A. (2024). Does the purchase intention of green consumers align with their zero-waste buying behaviour? An empirical study on a proactive approach towards embracing waste-free consumption. *Heliyon*, 10(3), e25022.
- [20] Prasetya, P., Bakti, I. G. M. Y., Yarmen, M., et al. (2025). A bibliometric analysis and policy recommendation on Asian consumers' green purchasing behavior. *Discover Sustainability*, 6, Article 865.
- [21] Purcărea, T., Ioan-Franc, V., Ionescu, Ș.-A., et al. (2022). Major shifts in sustainable consumer behavior and retailers' priorities in adapting to it. *Sustainability*, 14(3), 1–51.
- [22] Raghavendra, & Diddimani, M. (2025). Determinants of green consumer behavior: Psychological, social, economic, and contextual factors. *Asian Review of Social Sciences*.
- [23] Sobgo, A. D. Z., Sun, L., Atingabili, S., Kewou, N. Y. N., & Tcheudjeu, A. T. (2025). Psychological and situational determinants shaping consumers' intention to purchase eco-friendly personal care products: PLS-SEM and fsQCA insights. *Journal of Cleaner Production*, 522, 146281.
- [24] Sun, Y., Liu, N., & Zhao, M. (2021). Factors influencing green purchasing behavior: A systematic review and future research agenda. *International Journal of Environmental Research and Public Health*, 18(21), 11202.
- [25] Testa, F., Corsini, F., Gusmerotti, N. M., & Iraldo, F. (2022). Consumer preferences for environmentally sustainable products: Recent evidence and future directions. *Business Strategy and the Environment*, 31(6), 2560–2575.
- [26] Testa, F., Sarti, S., & Frey, M. (2019). Are green consumers really green? Exploring the factors influencing green purchasing behavior. *Business Strategy and the Environment*, 28(2), 327–339.
- [27] Tran Cam, L. N. (2023). A rising trend in eco-friendly products: A health-conscious approach to green buying. *Heliyon*, 9(9), e19845.
- [28] Tran, T. N., & Hang, N. P. T. (2025). Research on the impact of user-generated content (UGC) in shaping the purchase behavior of environmentally friendly products and the moderating role of brand reputation. *PLOS ONE*, 20(11), e0337193.
- [29] Tran, T. N., & Hang, N. P. T. (2025). Research on the impact of user-generated content in shaping the purchase behavior of environmentally friendly products and the moderating role of brand reputation. *PLOS ONE*, 20(11), e0337193.
- [30] Trudel, R. (2019). Sustainable consumer behavior. *Consumer Psychology Review*, 2(1), 85–96.

[31] White, K., Habib, R., & Hardisty, D. J. (2019). How to shift consumer behaviors to be more sustainable: A literature review and guiding framework. *Journal of Marketing*, 83(3), 22–49.

[31] Zhang, Y., Cham, T.-H., Pek, C. K., & Leong, C.-M. (2024). Is face and information availability important in green purchasing among young consumers? *Humanities and Social Sciences Communications*, 11, Article 878.