

# An Analysis of Consumer Buying Behavior towards Sustainable Green Products in Erode District

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**Abstract-** Over the last few years, the consumer shopping habits have been experiencing a significant change due to the increased rate of environmental awareness and a more profound understanding of the sustainability concept. The current research, which is titled: **An Analysis of Consumer Buying Behavior towards Sustainable Green Products in Erode District**, aims at analyzing consumer attitudes, behaviors, and decision making related to the purchase of sustainable green products. This paper analyzes the perceived advantages of consuming environmentally-friendly products and attempts to isolate the factors, which inspire the consumers to buy them. Moreover, it outlines the key obstacles that prevent consumers from adopting sustainable products, which are high prices, inaccessibility, ill-informed attitudes, and doubt about product assertions. The study also explores the effects of demographic factors such as age, gender, income, education and occupation on perceptions and buying behaviours of the residents of Erode District with regard to green products that are sustainable. Primary data were collected through the use of structured questionnaires of local consumers about them, and then there was statistical analysis followed. The results cast some light on the likes of consumers, their inner-motivation and barriers that prevent the use of goods that are sustainable. The study, as such, can have significant implications to businesses, government, and advertisers who want to create successful marketing on sustainable buying behaviours, hence contributing towards our scholarly knowledge on green consumer behaviour.

**Keywords:** Consumer Attitude, Consumer Buying Behaviour, Environmental Awareness, Erode District, Sustainable Green Products, Resource-efficient, Recyclable, biodegradable Products

## I. INTRODUCTION

Sustainable products are those that are procured, produced and recycled in a manner that ensures financial viability, social accountability and

conservation of the environment at each life cycle stage such as in the mining of raw materials all the way to disposal of the products. Such goods tend to result in less waste, less energy to manufacture and deliver, as well as be sourced in renewable materials. They are manufactured under sound and ethically conscious working conditions and are also focused on recycling, re-using, and eco-friendly packaging. Green products that specifically focus on reducing the harm to the environment achieved before and after its use are closely related. Resource-efficient, recyclable, biodegradable and often having minimal plastic and carbon footprint, green products are often characterized by very few resources required. They are produced without the use of harmful chemicals and they are meant to promote sustainability and minimal usage of wastes.

Any business, consumer, and the society at large can stand to benefit a lot through the application of green practice. Going green expands brands to other markets that are concerned about the environment, provides them with competitive advantage, enhances their image, and creates a strong brand loyalty. Long-durable, moderately priced products that require minimal maintenance and low-risk of use materials that do not present a danger to the environmental conditions improve physical and emotional health of consumers. Green products benefit the society by providing employment opportunities, decreasing excessive exploitation of the natural resources and conserving the environment in terms of lessening the emission of greenhouse gases and pollution. However, there are also disadvantages to the establishment of green products such as higher development costs, a general lack of awareness by the general population, and the high investments in technology and research needed by many to adopt them by consumers and businesses.

## II. REVIEW OF LITERATURE

This research is conducted by Ibrahim Cholakkal (2018) and focuses on the consumer awareness and satisfaction regarding environmentally-friendly products. It also examines the level of expenditure on them by the consumers. Regarding the findings, the hard materials are of great demand since they are long-lasting. His study reveals that monthly income is more advantageous in influencing spending on environmentally friendly products in comparison to education and income.

Babitha, et.al.,(2013) conducted a study of the effect of green marketing on the purchasing behavior of Indian consumers. This study was done to find out the impact of green marketing on the consumer behavior and the way businesses can use them to achieve a competitive edge over other businesses. The purpose of the study was to discover the challenges that businesses encounter to embrace green practices and how it could escalate demand through the same. This study suggests that advertising will be able to increase awareness of the products among the consumers and affect the purchasing decision of individuals. As well, this paper suggests developing eco-friendly products, which must ensure competency.

Their research focuses on analyzing 37 studies on consumer behavior and factors influencing the purchase of green products (Andreea Barbu et.al.,(2022). These are the perceived risks, perceived benefits, image of the firm, societal norms, environmental orientation, institutional trust, socio demographic characteristics, and consumer confidence. The paper has highlighted the importance of considering the needs, expectations and perceptions of the consumers in purchasing green products, which highlights the prevalent concern with the need to protect the environment. It is product behavior oriented because it covers the consumer behavior with regard to green products.

In this work, Diego A. Vazquez-Brust et.al., ( 2012) proposes transformative green growth through economic theories, multi-stakeholder governance and policies that motivate growth and environmental interactions to create synergies. It talks about conceptualizations development, transitional issues and how to resolve problems in environmental concerns and dwells on ecological modernization and win-win scenario.

CC Chen et.al., (2018), The paper will look at consumer behavior in regards to buying green products in belt and road countries. It discovered

that the purchase intention is positively influenced by environmental attitude, product attitude, social influence, and perceived monetary value. Attitudes towards sustainable consumption and reduction of emissions are also influenced positively by cognitive values, environmental literacy, environmental awareness, government role, and media exposure.

## III. STATEMENT OF THE PROBLEM

Over the past few years, the issue of environmental degradation, climatic change, and high rate of pollution has added to the pressure of adopting sustainable consumption practices. In spite of the fact that there has been increased awareness of environmentally friendly and green products that are sustainable, there is limited adoption and purchase of the products in a consistent manner. Numerous consumers have positive energy towards sustainability, but the good-looking impression does not always reflect in the routine purchasing patterns. This disparity between awareness and actual intention to purchase generates confusion on businesses as well as policymakers who want to encourage people to develop green consumption. Using Erode District as a case in point where consumer markets are growing and environmental issues are slowly gaining prominence, consumers need to know how they view sustainable green products as well as what actually makes them make a purchase. The high product prices, product lack, insufficient awareness, and doubt in the product claims are some of the problems that may deter consumers to buy green products, despite the identified benefits of the products. Moreover, demographic factors, including age, gender, income, education and occupation, might influence the consumer perceptions and buying behavior differently.

Nevertheless, the empirical studies on the specific subject of consumer buying behavior on sustainable green products in Erode District are limited. Thus, the main issue of the work is to investigate what affects the consumer purchasing decision, what are the obstacles to the adoption, and how the demographic features can shape consumer attitudes and behavior towards sustainable green products. A solution to this issue will help to overcome the gap between internal environmental awareness and actual consumer behavior.

IV. OBJECTIVE OF THE STUDY

1. To analyze the attitude and buying behavior of consumers towards sustainable green products in Erode District.
2. To identify and evaluate the key factors influencing consumers' purchase decisions of sustainable green products.
3. To examine the impact of demographic variables on consumer perception and buying behavior towards sustainable green products in Erode District.

V. RESEARCH METHODOLOGY

The current study uses a descriptive research approach to examine Erode District consumers' purchasing patterns for environmentally friendly, sustainable products. The study's main goals are to comprehend customer attitudes, the variables that affect decisions to buy, the perceived advantages, and the obstacles to buying sustainable green products. A systematic questionnaire was used to gather primary data from Erode District customers. To choose responders, a non-probability sampling technique was employed. For the study, a total of 150 responses was taken into consideration. To efficiently and clearly communicate the results, the gathered data was categorized, arranged, and examined using basic statistical techniques including percentage analysis.

VI. LIMITATIONS OF THE STUDY

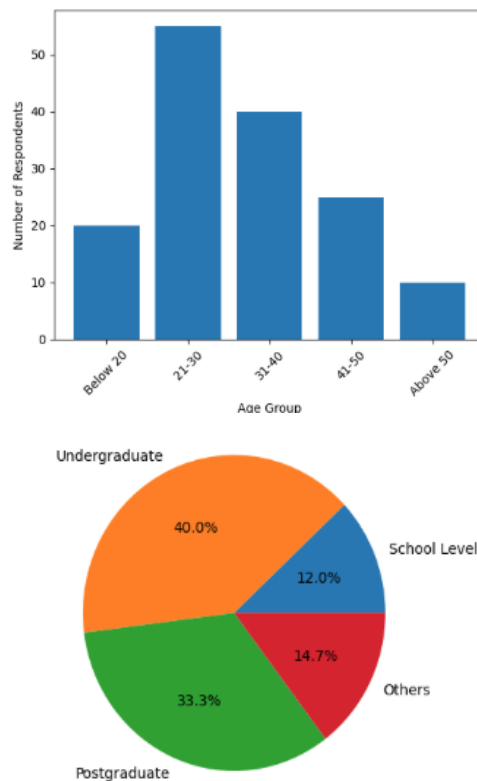
1. The study is limited to Erode District only, and therefore the findings may not be applicable to other districts or regions.
2. Only 150 respondents were included in the sample, which might not accurately reflect all of the district's consumers.
3. The study is based on primary data collected through questionnaires, and the responses depend on the honesty and understanding of the respondents.
4. The study may not address every potential variable pertaining to sustainable green products because it only looks at a few elements that affect consumer behavior.

VII. ANALYSIS AND RESULTS

7.1 Result of Inferential analysis

According to the demographic analysis, the respondents come from a variety of age groups, educational backgrounds, professions, and income ranges. Customers between the ages of 21 and 40 make up a larger portion of the market, suggesting that young and middle-aged people are more likely to buy sustainable green items. The majority of responders have either undergraduate or graduate degrees, indicating that educated customers are more conscious of sustainability. This trend is consistent with other consumer research, which shows that age and education are important demographic variables affecting purchasing decisions.

Chart No 1. Age group and Qualification of the Respondents



As the results of the survey state, most of them are positive towards green and environmentally friendly products. The majority of the participants are of the opinion that green products can be helpful to reduce pollution, save the environment, and improve health, which can be regarded as the increasing environmental awareness of consumers in the Erode District. Nevertheless, a minority of the respondents were neutral or negative because they were not certain about the efficiency of the product or their strong preference. This implies that awareness is on the rise though not necessarily into the actual purchase behaviour. The research also establishes

the criteria that had a significant impact on the purchasing behavior such as environmental concern, price, quality, and product awareness.

Despite the fact that a number of consumers are driven by the need to conserve the environment, pricing constitutes a very important determinant. Green products are also perceived as high-quality and safe by the consumers and this factor has a positive influence on their preferences. Moreover, the knowledge and perception of the value of sustainable products can also have a strong impact on the purchase intention. Generally, the results indicate that the environmental values along with a set of practical factors, including the price and knowledge, influence the purchasing decision, showing that the improvement of awareness campaigns and cost-efficient pricing strategies should be implemented to promote the use of sustainable products.

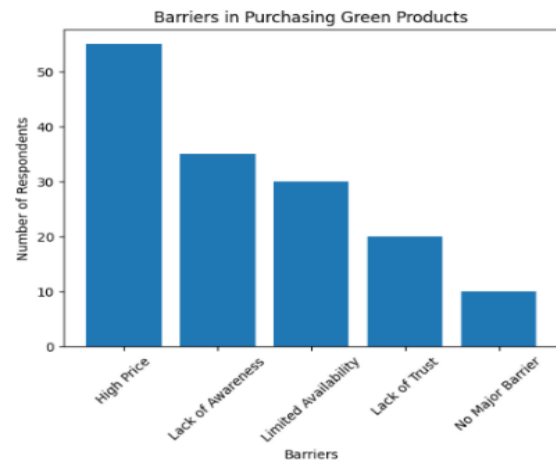
Chart No 2. Factors Influencing Purchasing Decision



On the whole, the respondents are highly convinced that eco-friendly and sustainable products can be of significant interest to individuals as well as to the society. Some of the participants believe that the products contribute to the improved protection of the environment as it minimizes harmful emissions and reduces pollution. They also consider the sustainable products to be better in terms of personal health as there are fewer toxic chemicals in them. Moreover, some of the respondents can identify the economic benefits of low energy usage and increased product life in the long term. Although there are these perceived benefits, the research also puts critical obstacles that cannot allow regular purchase. The biggest obstacle is the expensive price of green products as opposed to the traditional products. Little knowledge regarding the complete assortment of benefits and inability to access these products in the region further limit the consistent adoption.

These results indicate that though consumers have a positive attitude towards sustainable consumption, the issue of affordability, awareness, and accessibility is still vital and should be considered to promote its extensive application.

Chart No 3. Barriers of Purchasing Green Products



Research indicates that demographic variables including age, income, and educational attainment affect the purchasing decisions of consumers: Consumers who are younger and better educated have more favorable opinions on sustainability, despite greater costs, higher-income groups are more inclined to choose sustainable green items, In studies of consumer behavior, where individual traits influence awareness, attitude, and eventually purchase intention, this demographic influence is common.

### 7.2 Chi-Square Analysis on Significant Relationship Between Age Group and Major Influencing Factors Affecting Purchase of Sustainable Green Products Hypothesis

Null Hypothesis (H<sub>0</sub>):

There is no significant relationship between age group and major influencing factors affecting purchase of sustainable green products.

Alternative Hypothesis (H<sub>1</sub>):

There is a significant relationship between age group and major influencing factors affecting purchase of sustainable green products.

Chi-Square Value ( $\chi^2$ ) = 1.343

Degrees of Freedom (df) = 16

P-Value = 1.000

Level of Significance = 5% (0.05)

Since the p-value (1.000) is greater than 0.05, we fail to reject the null hypothesis. This indicates that there is no significant association between age group and the major factors influencing purchase decisions of sustainable green products in Erode District. In other words, consumers across different age groups are

influenced by similar factors such as price, environmental concern, and quality while purchasing sustainable green products. The analysis concludes that age does not significantly influence the choice of major purchasing factors. Therefore, marketing strategies for sustainable green products can be designed broadly rather than targeting specific age groups based on influencing factors.

### 7.3 Correlation Matrix

The correlation matrix shows the relationship between Age, Education, Attitude, Influencing Factors, and Barriers.

Attitude shows a strong negative correlation with Influencing Factors (-0.923).

Attitude shows a strong positive correlation with Barriers (0.923).

Age and Education show weak relationships with Attitude.

This indicates that purchase influencing factors and barriers have stronger relationships with consumer attitude compared to demographic variables.

### 7.4 Regression Analysis

Dependent Variable: Consumer Attitude

Independent Variables: Age, Education, Influencing Factor, Barrier

Key Results:

- $R^2 = 0.876$   
This means that 87.6% of the variation in consumer attitude is explained by the independent variables included in the model.
- Significant Variables ( $p < 0.05$ ):
- Influencing Factor ( $p = 0.000$ )
- Barrier ( $p = 0.000$ )
- Not Significant Variables ( $p > 0.05$ ):
- Age ( $p = 0.814$ )
- Education ( $p = 0.598$ )

The regression results indicate that major influencing factors and barriers significantly affect consumer attitude towards sustainable green products, whereas demographic variables such as age and education do not have a statistically significant impact. This means that consumers buying behaviour is mainly driven by practical considerations such as price, environmental concern, and perceived barriers rather than demographic characteristics.

## VIII. SUMMARY OF RESULTS

### 1. Demographic Profile of Respondents

The demographic analysis shows that respondents belong to diverse age groups, education levels, income categories, and professions. A higher proportion of consumers fall within the 21–40 age group, indicating that young and middle-aged individuals are more inclined toward purchasing sustainable green products. Most respondents possess undergraduate or postgraduate qualifications, suggesting that educated consumers tend to have greater awareness about sustainability. Overall, demographic characteristics such as age and education appear to influence awareness levels, though not necessarily actual purchase decisions.

### 2. Consumer Attitude Towards Sustainable Green Products

The majority of respondents demonstrate a positive attitude toward eco-friendly and sustainable products. They believe that green products help reduce pollution, protect the environment, and improve personal health, reflecting growing environmental consciousness in Erode District. However, a small segment remains neutral or negative due to doubts about product effectiveness or lack of strong preference. This indicates that although awareness is increasing, it does not always directly translate into consistent purchasing behavior.

### 3. Factors Influencing Purchase Decisions

The study identifies environmental concern, price, quality, and product awareness as the major factors influencing purchase decisions. While many consumers are motivated by environmental protection, price emerges as a critical determinant. Consumers also perceive green products as safe and high-quality, which positively influences their preference. Additionally, awareness about the benefits of sustainable products significantly enhances purchase intention. Thus, purchasing decisions are shaped by a combination of environmental values and practical considerations.

### 4. Barriers to Purchasing Sustainable Green Products

Despite recognizing the benefits, consumers face several obstacles that limit regular purchases. The most significant barrier is the high price of sustainable products compared to conventional alternatives. Limited awareness about product benefits and restricted local availability further hinder adoption. These findings suggest that affordability, accessibility, and awareness remain key challenges in promoting widespread use of green products.

### 5. Chi-Square Analysis

The Chi-Square test examined the relationship between age group and major influencing factors affecting purchase decisions. Since the p-value (1.000) is greater than the 0.05 significance level, the null hypothesis is accepted. This indicates that there is no significant relationship between age and the factors influencing purchase decisions. Consumers across all age groups are influenced by similar factors such as price, environmental concern, and quality, suggesting that marketing strategies need not be age-specific in this context.

#### 6. Correlation Analysis

The correlation analysis reveals that influencing factors and barriers have a strong relationship with consumer attitude, whereas demographic variables such as age and education show weak relationships. Attitude has a strong negative correlation with influencing factors and a strong positive correlation with barriers, indicating that practical considerations significantly shape consumer perception. This highlights that purchase-related factors are more influential than demographic characteristics.

#### 7. Regression Analysis

The regression analysis shows that 87.6% ( $R^2 = 0.876$ ) of the variation in consumer attitude is explained by the independent variables included in the model. Influencing factors and barriers are statistically significant variables ( $p < 0.05$ ), while age and education are not significant. This confirms that consumer attitude toward sustainable green products is primarily driven by practical considerations such as price, environmental concern, and perceived barriers rather than demographic factors.

### IX. SUGGESTIONS

Based on the findings of the study, the following suggestions are offered to promote sustainable green products in Erode District:

1. Since younger and well-educated consumers show greater awareness of sustainable products, awareness programs should be expanded to reach older age groups and individuals with lower educational backgrounds. Workshops, community campaigns, and simplified promotional content in local languages can help improve understanding across all demographic segments. Marketers should also use digital platforms to effectively target young consumers while designing inclusive strategies for wider reach.
2. Although most respondents have a positive attitude toward green products, efforts should be made to convert positive perception into actual purchase behavior. Demonstrations, free samples, testimonials, and real-life success stories can help reduce doubts about product effectiveness. Building trust through certifications and eco-labels will further strengthen consumer confidence.
3. Since price, environmental concern, quality, and awareness significantly influence purchase decisions, companies should focus on competitive pricing strategies and highlight product quality in their marketing communication. Educating consumers about the long-term environmental and health benefits can strengthen environmentally driven buying behavior. Clear labeling and transparent information about ingredients and production methods can also enhance purchase intention.
4. To overcome high price concerns, businesses can introduce smaller packaging options, promotional discounts, and loyalty programs. Government subsidies or tax incentives for green products may also encourage affordability. Improving distribution channels and ensuring availability in local markets and retail stores will address accessibility issues. Awareness campaigns through social media, schools, and community programs can reduce knowledge gaps.
5. Since age does not significantly influence the major purchasing factors, marketing strategies can be designed broadly rather than focusing on specific age groups. Campaigns should emphasize universal factors such as environmental protection, product quality, and cost benefits that appeal to all age categories.
6. As influencing factors and barriers have a stronger relationship with consumer attitude than demographic variables, marketers should prioritize reducing practical barriers such as high price and limited awareness. Addressing these key concerns will have a direct and positive impact on consumer attitudes and purchasing decisions.
7. Given that influencing factors and barriers significantly affect consumer attitude, policy makers and businesses should focus on improving affordability, accessibility, and awareness rather than targeting demographic characteristics. Strengthening promotional strategies, offering competitive pricing, and

increasing product visibility in the market will significantly enhance consumer acceptance and adoption of sustainable green products.

## X. CONCLUSION

This paper finds out that the overall attitude of consumers within the Erode District toward sustainable green products is mostly positive, as there is an increasing level of awareness of the sustainability of the environment, health-related benefits, and economic gains in the long run. The demographic analysis shows that younger and better-educated consumers are more awareness-driven, but the results of statistical tests prove that demographic factors including age and education do not play a significant role in purchasing factors. The Chi-square test and correlation and regression tests all support the notion that consumers of various ages are guided by the same considerations but practical things, specifically price, environmental concern, product quality, awareness, and perceived barriers are far more influential on consumer attitude and purchase intention. The results of regression indicate that consumer attitude is highly dependent on the influencing factors and barriers with a strong impact of demographic characteristics as the R<sup>2</sup> of the regression is 0.876. Although this has positive perceptions, costliness, inadequate awareness, and scarcity of availability are some of the greatest barriers to uniform adoption. Thus, the research paper stresses the fact that to transform the positive attitude into the real buying behavior, it is necessary to enhance affordability, make the products more accessible, and reinforce the effect of the awareness campaigns. The companies ought to introduce competitive prices, clear labeling and effective marketing campaigns and the policymakers can look at supportive policies like the incentive or subsidies of green products. Comprehensively, the study indicates that sustainable consumption within the Erode District is more of practical orientation rather than demographic variations, and it is important to discuss these main obstacles to encourage a significant number of people to purchase environment-friendly products.

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