

## Original Article

### Consumer Behaviour - Change the Environment

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#### Abstract

*In the face of increasing environmental degradation and pollution, understanding and transforming consumer behavior has become crucial for achieving sustainable development. Consumers are not only a backbone of marketing but also an environment. This study explores how consumer choices, attitudes, and purchasing patterns can be redirected toward eco-friendly practices that promote a pollution-free environment. It examines the psychological, social, and economic factors that influence consumers' willingness to adopt green products and services. This study examines attitudes and practices related to the use of polythene covers in rural market areas. Data were collected from 200 respondents using a structured interview schedule. The objective is to understand the patterns of usage, awareness of harmful effects, reasons for repeated usage, and willingness to avoid polythene. The study also provides templates and steps for conducting Chi-square tests, cross-tabulations and regression analysis using SPSS, and a full interpretive write-up for report inclusion.*

**Keywords:** Consumer, Environment, Pollution and Sustainable Development

#### Introduction

Polythene pollution has become a serious environmental challenge across the globe. The excessive use of polythene bags and other plastic products has led to severe damage to soil, water, and air quality. These materials, being non-biodegradable, remain in the environment for hundreds of years, affecting ecosystems and human health alike. Consumer behavior plays a crucial role in this issue. Every purchase decision made by consumers whether to use a plastic bag or a reusable one directly impacts the level of polythene waste generated. Many consumers continue to use polythene out of convenience, low cost, or habit, often without considering its long-term environmental effects. Therefore, understanding and transforming consumer behavior is essential to create a cleaner, healthier, and polythene-free environment.

#### Statement of the Problem

Despite increasing awareness about environmental protection, the use of polythene products remains widespread among consumers. This continuous dependence on polythene has resulted in growing levels of plastic waste, clogged drainage systems, soil contamination, and threats to marine and terrestrial life. The main problem lies in consumers' unwillingness or inability to change their habits and adopt sustainable alternatives. There is also a lack of strong policies, incentives, and public education to encourage eco-friendly behavior. Hence, the problem this study (or discussion) seeks to address is how to influence and change consumer behavior to reduce or eliminate the use of polythene products, thereby promoting an environment free from polythene pollution.

#### Objectives of the Study

- To assess the level of awareness about the use of polythene covers among the consumer
- To understand the attitude and habitual practices of the respondents towards the use of polythene covers
- To measure the overall attitude of the consumer regarding the environmental impact of polythene covers
- To offer suitable suggestions for reducing the usage of polythene covers

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## Review of Literature

### 1. Polythene Pollution and Environmental Impact

1. Gupta & Sharma (2017) found that polythene bags contribute significantly to soil and water pollution, affecting plant growth and aquatic life.
2. UNEP (2018) reported that nearly 5 trillion plastic bags are used globally each year, with only a small percentage recycled properly.
3. Jambeck et al. (2015) emphasized that improper disposal of plastic waste leads to long-term environmental degradation.

### 2. Consumer Awareness and Behavior

1. Ajzen's Theory of Planned Behavior (1991) explains that consumer actions are guided by attitudes, subjective norms, and perceived behavioral control.
2. Amin et al. (2009) found that awareness alone does not guarantee behavioral change; convenience and cost also influence consumer choices.
3. Thomas et al. (2018) showed that behavioral nudges, such as incentives for carrying reusable bags, significantly reduce single-use plastic consumption.

### 3. Government Policies and Regulations

1. NEMA (2019) in Kenya reported a drastic reduction in plastic waste following strict enforcement of a national polythene ban.
2. India's Plastic Waste Management Rules (2016, amended 2021) have led to greater consumer awareness, but compliance remains a challenge due to lack of alternatives and monitoring.
3. OECD (2020) highlighted that combining regulation with consumer education yields better results than enforcement alone.

### 4. Sustainable Alternatives and Market Trends

1. Patil & Patil (2020) discussed the rise of biodegradable and cloth bags as substitutes for polythene.
2. Ritch et al. (2009) found that branding and social influence can increase consumer adoption of sustainable packaging.
3. Kumar & Agrawal (2021) noted that urban consumers are more willing to pay a premium for eco-friendly products compared to rural counterparts.

### 5. Behavioral Change Strategies

1. McKenzie-Mohr (2011) in "Fostering Sustainable Behavior" emphasized community-based social marketing as an effective tool for changing environmental behaviors.
2. Thaler & Sunstein (2008) introduced the concept of "nudging," suggesting that small changes in choice architecture can lead to significant shifts in consumer habits.
3. UNDP (2022) advocated educational campaigns, incentives, and product redesigns as key interventions to reduce polythene pollution.

## Methodology

**Sample Size:** 200 respondents.

**Instrument:** Structured interview schedule (Annexure includes full instrument).

**Data Analysis:** Frequency distribution, cross-tabulation, chi-square tests for independence, and regression analysis to predict willingness to buy without polythene using demographic predictors.

**Software:** SPSS (syntax templates provided).

## Analysis of the Study

### Attitude towards Buying without Polythene

**Table 1**

Attitude	No of Respondents	Percentage	Valid Percentage	Cumulative Percentage
Highly Disagree	8	4.0	4.0	4.0
Disagree	15	7.5	7.5	11.5
Neutral	26	13.0	13.0	24.5
Agree	62	31.0	31.0	55.5
Highly Agree	89	44.5	44.5	100.0
	200	100.0	100.0	

### Primary Data

The table shows respondents' attitudes toward purchasing goods without using polythene bags. The total number of respondents is 200.

Highly agree (44.5%): The largest group (89 respondents) highly agree that they prefer or support buying without polythene.

Agree (31.0%): Another 62 respondents agree with this practice, indicating a positive inclination toward avoiding polythene use.

Neutral (13.0%): A moderate portion (26 respondents) remain neutral, suggesting they may not have a strong opinion or consistent behavior regarding this issue.

Disagree (7.5%) and Highly Disagree (4.0%): A small number of respondents (15 and 8 respectively) disagree or highly disagree, showing resistance or inconvenience in avoiding polythene. This suggests that most respondents are environmentally aware and willing to adopt eco-friendly habits by reducing the use of polythene bags.

### Descriptive Statistics and Reliability Analysis of Attitude Towards Polythene Usage

This table presents the descriptive statistics and reliability analysis for the five attitude statements related to the use of polythene covers among respondents in Sathankulam Taluk. The selected items measure various aspects such as willingness to avoid polythene, awareness of environmental and animal impacts, perceptions about women's usage, personal environmental responsibility, and beliefs about diseases caused by polythene. The reliability of the overall attitude scale is assessed using Cronbach's Alpha to determine internal consistency.

**Combined Descriptive & Reliability Table**

Variables	N	Minimum	Maximum	Mean	Std. Deviation
I can buy without Polythene	200	1.00	7.00	<b>4.0550</b>	1.13065
Affects the environment, also affects the animals	200	1.00	5.00	<b>4.1700</b>	0.98282
Majority of the ladies use the polythene	200	1.00	5.00	<b>3.9050</b>	1.17596
I am a responsible person to save our environment	200	1.00	5.00	<b>4.1000</b>	0.98225
Diseases are created from the use of polythene bag	200	1.00	5.00	<b>4.0900</b>	1.09906
<b>Scale Mean (Sum of 5 items)</b>	<b>20.3200</b>				
<b>Scale Variance</b>	<b>16.038</b>				
<b>Scale Std. Deviation</b>	<b>4.00472</b>				
<b>Cronbach's Alpha</b>	<b>0.798</b> (Standardized: 0.803)				

The mean scores of all five attitude items range between 3.90 and 4.17, indicating that respondents generally hold a positive and environmentally conscious attitude toward reducing polythene usage. The item "affects the environment, also affects the animals" recorded the highest mean (4.17), showing strong agreement about the harmful impact of polythene on nature and animals. The item "Majority of the ladies use the polythene" has the lowest mean (3.90), suggesting comparatively lesser agreement, although still above the mid-point. The overall scale mean stands at 20.32, reflecting consistent positive attitudes across the sample. The reliability analysis reveals a Cronbach's Alpha value of 0.798, and 0.803 in standardized form, indicating high internal consistency of the attitude scale. This suggests that the five items collectively measure the same underlying construct effectively and can be used as a reliable attitude measure in further statistical analysis.

### Differences among Attitude Scale Items

Analysis of Variance (ANOVA) is used to examine whether there are statistically significant differences among the mean scores of the five attitude statements related to polythene usage. This helps determine whether respondents rated all the statements similarly or whether some aspects of attitude received higher or lower levels of agreement. The table presents the between-items variation, within-items variation, and the significance level for the attitude scale items.

**Differences among Attitude Scale Items**

Anova					
		Sum of Squares	df	Mean Square	F
Between People		638.304	199	3.208	
Within People	Between Items	7.714	4	1.929	2.97
	Residual	515.886	796	.648	.019
	Total	523.600	800	.655	6
Total		1161.904	999	1.163	
Grand Mean = 4.0640					

The ANOVA results indicate that the variance between items is statistically significant ( $F = 2.976$ ,  $p = 0.019 < 0.05$ ). This means that respondents did not rate all five attitude statements equally; instead, there are significant differences in how strongly they agreed with each item.

The Grand Mean of 4.0640 indicates that, overall, respondents show a high positive attitude towards avoiding polythene and acknowledging its harmful impacts. However, the significant F-value suggests that certain items—such as environmental and animal impact—received stronger agreement than others, such as the perception that “majority of the ladies use polythene.” The reliability of these variations is supported by the earlier Cronbach’s Alpha, confirming the internal consistency of the items.

## Suggestions

### 1. Enhance Environmental Awareness

Conduct regular awareness campaigns in schools, colleges, and communities to educate consumers about the harmful effects of pollution and the importance of eco-friendly consumption.

Use social media and digital platforms to promote sustainable lifestyle practices.

### 2. Promote Eco-Friendly Products

Encourage the use of biodegradable, reusable, and recyclable materials instead of polythene and other non-degradable products.

Support local businesses that produce environmentally friendly goods through incentives and recognition programs.

### 3. Government Policies and Regulations

Enforce strict bans or restrictions on single-use plastics and provide viable alternatives to consumers.

Offer tax benefits or subsidies to companies and consumers adopting green practices.

Implement “polluter pays” principles to hold individuals and industries accountable for pollution.

### 4. Encourage Behavioral Change through Incentives

Introduce reward systems for consumers who adopt sustainable practices, such as discounts for bringing reusable bags or containers.

Encourage behavioral “nudges” that make eco-friendly choices easier and more attractive.

### 5. Corporate Social Responsibility (CSR)

Businesses should promote green marketing and sustainable packaging to influence consumer behavior positively.

Retailers can encourage consumers by offering eco-friendly alternatives at checkout points.

### 6. Community Involvement and Participation

Strengthen community-based waste management programs, such as recycling drives and clean-up campaigns.

Foster a culture of shared responsibility where communities collectively work to reduce pollution.

### 7. Education and Curriculum Integration

Integrate environmental education into school and college curricula to shape responsible consumer behavior from a young age.

Organize workshops, seminars, and green clubs to build practical knowledge about pollution control.

### 8. Encourage Minimalism and Responsible Consumption

Promote the idea of “buy less, use longer” to reduce waste generation.

Advocate for repair, reuse, and recycling habits among consumers.

### 9. Use of Technology for Sustainable Choices

Develop mobile apps or online platforms to help consumers identify eco-friendly products and track their environmental impact. Encourage digital receipts and paperless transactions to minimize waste.

## Conclusion

Consumer choices promote healthy competition among businesses. This competition leads to innovation, better prices and improved products. The study shows a gap between awareness and behavior. While people know polythene is harmful, practical constraints and habitual usage sustain its prevalence. Targeted interventions addressing convenience and availability of alternatives can bridge this gap.

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