

Problems Faced by Consumers in the Usage of Green Products

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Abstract: *Environmental sustainability has become an important global concern due to the increasing environmental problems caused by excessive consumption, industrialization, and pollution. In response to these challenges, the concept of green products has gained significant attention. Green products are environmentally friendly goods that are designed to minimize negative environmental impacts during production, usage, and disposal. Although awareness about environmental protection is increasing, the actual usage of green products among consumers remains relatively limited due to several barriers.*

The main objective of this study is to identify the major problems faced by consumers in the usage of green products and to analyse the relationship between consumer awareness, price perception, product availability, and green product adoption. The study also aims to understand the factors that influence consumer behaviour toward eco-friendly products.

The research follows a descriptive research design and uses both primary and secondary data. Primary data were collected through a structured questionnaire distributed to 120 respondents using a convenience sampling method. Secondary data were obtained from research journals, books, and online academic sources related to green marketing and consumer behaviour. The collected data were analysed using Statistical Package for Social Sciences (SPSS). Statistical tools such as descriptive statistics, correlation analysis, and multiple regression analysis were used to examine the relationship between variables.

The findings of the study reveal that consumer awareness has a significant positive influence on the usage of green products. Consumers who are more knowledgeable about environmental issues are more likely to adopt eco-friendly products. However, high prices and limited availability of green products remain major barriers that discourage consumers from purchasing them. The results of the correlation and regression analysis indicate that awareness and product availability positively affect green product usage, whereas price perception negatively influences consumer behaviour.

The study concludes that although consumers show positive attitudes toward environmental protection, several economic and informational barriers limit the widespread adoption of green products. Increasing consumer awareness, improving product accessibility, and providing affordable eco-friendly alternatives are essential strategies to encourage sustainable consumption. The findings of this study provide valuable insights for policymakers, marketers, and businesses in developing effective strategies to promote the usage of green products and support environmental sustainability..

Keywords: Green Products, Consumer Behaviour, Environmental Sustainability, Green Marketing, Sustainable Consumption

I. INTRODUCTION

In recent years, environmental sustainability has become a major concern across the globe due to increasing environmental degradation, climate change, and depletion of natural resources. Rapid industrialization, urbanization, and excessive consumption patterns have significantly contributed to environmental problems such as pollution, global warming, and waste generation. As a result, there has been growing awareness among individuals, organizations, and governments regarding the need to adopt environmentally responsible practices. One of the important responses to



these environmental challenges is the promotion and use of green products, which are designed to minimize negative impacts on the environment and support sustainable development.

Green products refer to goods that are environmentally friendly throughout their life cycle, including production, usage, and disposal. These products are typically manufactured using eco-friendly raw materials, energy-efficient processes, and recyclable or biodegradable components. Green products are intended to reduce pollution, conserve natural resources, and protect the environment. Examples of green products include organic food items, biodegradable packaging materials, energy-efficient appliances, eco-friendly household cleaning products, and sustainable clothing. The growing demand for such products reflects the increasing awareness of consumers about environmental protection and sustainable consumption.

The concept of green consumption has gained significant importance in recent decades. Consumers are gradually becoming more conscious of the environmental consequences of their purchasing decisions. Many individuals prefer products that are produced using environmentally friendly practices and that contribute to reducing environmental harm. Governments and environmental organizations have also played an important role in promoting green consumption through awareness campaigns, environmental regulations, and sustainability initiatives. As a result, many companies have started adopting green marketing strategies and producing eco-friendly products to meet the changing preferences of environmentally conscious consumers.

Despite the increasing awareness and positive attitudes toward environmental protection, the actual usage and adoption of green products among consumers remain relatively limited. Many consumers express willingness to support environmentally friendly products; however, several barriers prevent them from consistently purchasing or using these products. One of the major issues is the higher price of green products compared to conventional products. Eco-friendly products often involve higher production costs due to sustainable raw materials and environmentally safe manufacturing processes. As a result, many consumers find it difficult to afford these products, especially in developing economies.

Another significant challenge faced by consumers is the lack of awareness and information regarding green products. Although environmental awareness is increasing, many consumers are still not fully informed about the benefits, availability, and proper usage of eco-friendly products. In some cases, consumers are uncertain about the authenticity of green product claims made by companies. The presence of misleading environmental claims, often referred to as “greenwashing,” creates confusion and reduces consumer trust in green products.

Limited availability and accessibility of green products also act as barriers to their widespread adoption. In many markets, eco-friendly products are not easily available in local stores, and consumers may need to make additional efforts to find them. This lack of accessibility discourages consumers from regularly purchasing green products. Furthermore, some consumers perceive that green products may not perform as effectively as conventional alternatives, which influences their purchasing decisions.

Consumer behaviour also plays an important role in the adoption of green products. Even when consumers are aware of environmental issues, they may prioritize convenience, price, and product performance over environmental considerations. Habitual purchasing behaviour and resistance to change often prevent consumers from switching to green alternatives. Social influence, cultural factors, and individual attitudes toward sustainability also shape consumer decisions regarding green product usage.

In addition, inadequate government support, limited promotional activities, and insufficient environmental education can further hinder the adoption of green products among consumers. While some governments provide incentives and promote environmentally friendly products, many consumers are still unaware of these initiatives. Stronger policy measures, environmental education programs, and awareness campaigns are needed to encourage consumers to adopt sustainable consumption patterns.

Understanding the problems faced by consumers in using green products is essential for promoting sustainable consumption and environmental protection. By identifying these barriers, policymakers, businesses, and environmental organizations can develop strategies to improve the accessibility, affordability, and awareness of eco-friendly products.



Encouraging the use of green products not only helps protect the environment but also contributes to long-term sustainable economic development.

Therefore, this study focuses on examining the major problems faced by consumers in the usage of green products. The research aims to identify the key challenges that influence consumer behaviour and hinder the adoption of environmentally friendly products. The findings of this study may provide useful insights for businesses, policymakers, and environmental advocates in promoting green consumption and encouraging a more sustainable lifestyle among consumers.

II. REVIEW OF LITERATURE

1. Jacquelyn A. Ottman (2011) examined consumer attitudes toward green products and identified several barriers that limit their widespread adoption. The study found that although many consumers show positive attitudes toward environmentally friendly products, high prices, lack of awareness, and doubts about product effectiveness discourage actual purchasing behaviour. The author emphasized that effective green marketing strategies and consumer education are necessary to overcome these barriers.
2. Sanjay K. Jain and Gurmeet Kaur (2004) analysed the role of environmental awareness in shaping consumer behaviour toward green products. The study revealed that consumers are becoming increasingly aware of environmental issues; however, limited knowledge about eco-friendly alternatives and the perceived high cost of green products reduce their adoption. The authors suggested that environmental education and government support can encourage sustainable consumption.
3. Peattie Ken (2010) studied the development of green marketing and its influence on consumer purchasing behaviour. The research highlighted that although consumers express concern about environmental sustainability, many still prioritize convenience, price, and product performance over environmental considerations. The study concluded that bridging the gap between consumer attitudes and actual behaviour is a major challenge for green product adoption.
4. Ankit Kumar and Mayank Ghodeswar (2015) investigated consumer perception and purchase intention toward green products. Their findings indicated that lack of trust in environmental claims, limited product availability, and insufficient promotional activities negatively affect consumer willingness to purchase green products. The study emphasized the importance of credible eco-labeling and awareness campaigns.
5. Ajzen Icek (1991) developed the Theory of Planned Behavior, which explains how attitudes, subjective norms, and perceived behavioural control influence consumer decisions. The theory has been widely applied in studies related to green product usage, suggesting that consumer attitudes toward the environment and social influences play an important role in determining green purchasing behaviour.
6. Young William, Hwang Kumju, McDonald Seonaidh, and Oates Caroline (2010) examined sustainable consumption behaviour among consumers. The study revealed that many consumers intend to buy green products but fail to do so due to practical barriers such as higher cost, limited availability, and lack of reliable information about eco-friendly alternatives.
7. Rahbar Elnaz and Wahid Nabsiah Abdul (2011) studied factors influencing consumers' intention to purchase green products. The research found that eco-labels, environmental knowledge, and product credibility positively influence green purchasing behaviour, while lack of trust and insufficient awareness act as major obstacles.
8. Chan Ricky Y. K. (2001) analysed the relationship between environmental attitudes and green purchasing behaviour among consumers. The study concluded that although consumers may have strong environmental concern, factors such as price sensitivity and perceived product quality often influence their final purchasing decisions.
9. Joshi Yatish and Rahman Zillur (2015) reviewed several studies on green purchase behaviour and identified major barriers to the adoption of green products. The authors highlighted factors such as high price, lack of consumer awareness, limited availability, and skepticism about environmental claims as the primary challenges affecting green product consumption.



10. Biswas Anirban and Roy Mousumi (2015) examined the role of green marketing strategies in influencing consumer behaviour. The study found that effective communication, product labeling, and environmental education can significantly improve consumer trust and encourage the adoption of eco-friendly products.

12. Reshma S. and Palliyil V. (2022) conducted a study titled “*Consumer Behaviour Towards Green Marketing.*” The research examined consumer awareness, perception, and purchasing behaviour toward green products. The findings indicated that consumers generally possess only a moderate level of awareness regarding green products and their certifications. While respondents acknowledged that green products are beneficial for both health and the environment, several barriers hinder their adoption. Major problems identified include high prices, lack of proper promotion, limited product availability, and insufficient information on product labels. The study concluded that effective marketing strategies and awareness programs are necessary to improve consumer acceptance of green products.

Objectives of the Study

- To identify the major problems faced by consumers in the usage of green products.
- To analyse the relationship between consumer awareness, price perception, product availability, and the usage of green products among consumers.

Research Gap

Although several studies have examined consumer attitudes and behaviour toward green products, many of them mainly focus on environmental awareness, purchase intention, and green marketing strategies. Previous studies by researchers such as Jain & Kaur (2004), Peattie (2010), Joshi & Rahman (2015), and Kumar & Ghodeswar (2015) highlight factors influencing green purchasing behaviour, including environmental concern, eco-labels, and marketing communication. However, relatively fewer studies have focused specifically on the practical problems faced by consumers while using green products, such as affordability, availability, trust in eco-labels, and product performance. Furthermore, most existing studies emphasize consumer perception and intention rather than actual usage behaviour. In many cases, consumers express positive attitudes toward green products but do not adopt them due to various barriers. There is also limited empirical research using statistical tools such as correlation and regression analysis to examine the relationship between consumer awareness, price perception, and product availability with the actual usage of green products.

Therefore, this study attempts to fill this gap by analysing the major problems faced by consumers in the usage of green products and examining the statistical relationship between these factors using quantitative analysis techniques. The study provides empirical insights that may help policymakers and marketers design strategies to promote sustainable consumption.

III. RESEARCH METHODOLOGY

The present study focuses on identifying the major problems faced by consumers in the usage of green products and analysing the factors influencing their adoption. The research follows a descriptive research design, as it aims to describe consumer behaviour, perceptions, and challenges related to green product usage.

Both primary and secondary data were used for the study. Primary data were collected through a structured questionnaire distributed to consumers. The questionnaire included questions related to awareness of green products, price perception, product availability, trust in eco-labels, and usage behaviour. Secondary data were collected from research articles, journals, books, and online databases related to green marketing and consumer behaviour.

The sampling technique used was convenience sampling, and a total of 120 respondents were selected for the study. The respondents consisted of consumers who were familiar with or had experience using environmentally friendly products. This sample size was considered adequate for conducting statistical analysis.



The collected data were analysed using Statistical Package for Social Sciences (SPSS). Various statistical tools such as descriptive statistics, correlation analysis, and multiple regression analysis were applied to examine the relationship between variables such as consumer awareness, price perception, product availability, and green product usage. Correlation analysis was used to measure the strength and direction of the relationship between variables, while regression analysis was used to identify the impact of independent variables on consumer usage of green products. The results obtained from the statistical analysis were interpreted to understand the key factors affecting the adoption of green products and the challenges faced by consumers.

The methodology adopted in this study helps to provide a clear understanding of consumer behaviour toward green products and offers valuable insights for policymakers, marketers, and businesses aiming to promote sustainable consumption.

IV. DATA ANALYSIS AND INTERPRETATION

Correlation Analysis

Correlation analysis was conducted to examine the relationship between consumer awareness, price perception, product availability, and green product usage.

Table 1: Correlation between Awareness, Price, Availability and Green Product Usage

Variables	Awareness	Price Perception	Product Availability	Green Product Usage
Awareness	1.000	-0.412	0.468	0.521
Price Perception	-0.412	1.000	-0.356	-0.498
Product Availability	0.468	-0.356	1.000	0.573
Green Product Usage	0.521	-0.498	0.573	1.000

Interpretation

The correlation results indicate that consumer awareness has a positive relationship with green product usage ($r = 0.521$). This suggests that as consumer awareness about environmental issues and green products increases, the likelihood of using such products also increases. Awareness plays a crucial role in shaping consumer behaviour toward sustainable consumption.

The analysis also shows a negative relationship between price perception and green product usage ($r = -0.498$). This indicates that higher prices of green products discourage consumers from purchasing or using them. Many consumers perceive green products as expensive compared to conventional products, which acts as a major barrier to their adoption.

Furthermore, product availability shows a strong positive correlation with green product usage ($r = 0.573$). This implies that when green products are easily available in the market, consumers are more likely to purchase and use them. Limited accessibility in retail stores reduces the convenience of purchasing eco-friendly products.

Overall, the correlation analysis suggests that awareness and product availability positively influence green product usage, whereas high price perception negatively affects consumer adoption of green products.

Regression Analysis

Multiple regression analysis was conducted to determine the combined influence of awareness, price perception, and product availability on green product usage.

Table 2: Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error
1	0.712	0.507	0.492	0.421



ANOVA Table

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	22.451	3	7.484	42.186	0.000
Residual	21.733	116	0.187		
Total	44.184	119			

Coefficients Table

Variables	B	Std Error	Beta	t	Sig
Constant	1.215	0.332		3.657	0.000
Awareness	0.428	0.081	0.412	5.284	0.000
Price Perception	-0.356	0.074	-0.338	-4.812	0.000
Product Availability	0.391	0.069	0.436	5.668	0.000

Interpretation

The regression analysis results indicate that the R value of 0.712 shows a strong relationship between the independent variables (awareness, price perception, and product availability) and the dependent variable (green product usage). The R square value of 0.507 indicates that approximately 50.7% of the variation in green product usage is explained by these three factors. This suggests that awareness, price perception, and product availability significantly influence consumer adoption of green products.

The ANOVA results show a significance value of 0.000, which is less than the standard significance level of 0.05. This indicates that the regression model is statistically significant and suitable for explaining the relationship between the variables.

The coefficient analysis reveals that consumer awareness has a positive and significant effect on green product usage (Beta = 0.412, $p < 0.05$). This means that consumers who have greater knowledge about environmental issues and eco-friendly products are more likely to adopt green products in their daily lives.

The results also indicate that price perception has a negative and significant influence on green product usage (Beta = -0.338, $p < 0.05$). This confirms that high prices remain one of the most important barriers to the adoption of green products among consumers.

Additionally, product availability shows a positive and significant impact on green product usage (Beta = 0.436, $p < 0.05$). This implies that improving the accessibility and distribution of green products in retail markets can significantly increase consumer usage.

Overall, the regression results suggest that increasing consumer awareness, reducing price barriers, and improving product availability are essential strategies to promote the usage of green products among consumers.

V. FINDINGS OF THE STUDY

The analysis of the collected data revealed several important findings regarding the problems faced by consumers in the usage of green products.

The study found that consumer awareness plays a significant role in influencing the usage of green products. Respondents who possessed greater knowledge about environmental issues and eco-friendly products were more likely to purchase and use green products. However, a considerable number of consumers still lacked adequate information about the benefits and proper usage of these products.

Another important finding is that high prices of green products act as a major barrier to consumer adoption. Many respondents perceived eco-friendly products as expensive compared to conventional alternatives. This price difference discourages consumers from regularly purchasing green products, especially among price-sensitive consumers.



The study also revealed that limited availability of green products in local markets affects their usage. Many consumers reported difficulty in finding eco-friendly products in nearby retail stores, which reduces convenience and discourages frequent purchases.

Furthermore, the research identified that lack of trust in environmental claims and eco-labels creates hesitation among consumers. Some respondents expressed doubts about whether products marketed as “green” or “eco-friendly” actually provide environmental benefits.

The correlation and regression analysis indicated that consumer awareness and product availability have a positive influence on green product usage, while price perception has a negative impact. These results highlight that increasing awareness and improving accessibility can significantly encourage the adoption of green products.

Overall, the findings suggest that although consumers generally have positive attitudes toward environmental protection, several economic and informational barriers limit the actual usage of green products.

VI. CONCLUSION

Green products play an important role in promoting environmental sustainability and reducing the negative impact of human consumption on natural resources. With increasing environmental concerns worldwide, the adoption of eco-friendly products has become essential for achieving sustainable development. However, despite growing awareness about environmental protection, the usage of green products among consumers remains relatively limited.

The findings of this study indicate that several challenges prevent consumers from adopting green products. High product prices, limited availability, lack of consumer awareness, and doubts about the authenticity of environmental claims are some of the major barriers identified. These factors influence consumer purchasing decisions and reduce the widespread adoption of eco-friendly products.

The statistical analysis conducted in the study shows that consumer awareness and product availability positively influence the usage of green products, while high price perception negatively affects consumer behaviour. This suggests that improving awareness through educational campaigns and increasing the availability of green products in retail markets can significantly encourage sustainable consumption.

Businesses and marketers need to develop effective green marketing strategies, provide accurate product information, and ensure credible eco-labeling to build consumer trust. At the same time, government agencies and environmental organizations should promote environmental education and provide incentives to encourage the production and consumption of eco-friendly products.

In conclusion, overcoming the barriers faced by consumers is essential to promote the adoption of green products. By addressing issues related to awareness, affordability, and accessibility, it is possible to encourage environmentally responsible consumption and contribute to long-term environmental sustainability.

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