

Deciphering Sustainable Product Preferences: Insights from Indian Consumer Behavior

Poorani G.† and Banumathi M.

Department of Business Administration, Annamalai University, Chidambaram-608002, Tamilnadu, India

†Corresponding author: Poorani G.; pooraniganapathi@gmail.com

Nat. Env. & Poll. Tech.
Website: www.neptjournal.com

Received: 18-05-2024

Revised: 07-06-2024

Accepted: 20-06-2024

Key Words:

Environmental consciousness

Buying behavior

Sustainable products

Environmentally sustainable practices

ABSTRACT

Consumer health and wellness are increasingly threatened by the deteriorating state of the environment, both locally and globally. Pollution, deforestation, habitat destruction, and climate change are among the myriad environmental challenges that directly impact human well-being. From air and water pollution to the depletion of natural resources, these environmental issues have profound implications for public health, exacerbating respiratory diseases, waterborne illnesses, and other health problems. In response to these environmental challenges, consumers are becoming more environmentally conscious in their purchasing decisions. They are seeking products and services that minimize harm to the environment, promote sustainability, and contribute positively to ecological conservation efforts. This shift in consumer preferences is driving the demand for sustainable products across various industries, including food and beverages, personal care, fashion, and household goods. Sustainable product marketing plays a critical role in addressing these consumer demands while also mitigating environmental impacts. By promoting products that are ethically sourced, eco-friendly, and produced using environmentally sustainable practices, businesses can align their operations with environmental conservation goals. This involves adopting eco-friendly packaging, reducing carbon emissions throughout the supply chain, and supporting renewable energy initiatives. In the context of the current study aiming to examine consumer purchasing patterns for sustainable products in India, the results offer valuable insights into the interplay between environmental consciousness, demographic factors, and consumer behavior. By delving into these dynamics, the study sheds light on the multifaceted influences that shape consumers' decisions regarding sustainable products.

INTRODUCTION

Globalization and modernity have catalyzed a profound transformation in the patterns of consumption worldwide, triggering a sharp escalation in the demand for goods and services across diverse sectors. However, this surge in consumption has come at a significant cost to the environment, exerting immense pressure on ecosystems and natural resources. From rampant deforestation to rampant pollution and climate change-induced disruptions, the consequences of unsustainable consumption are increasingly evident. To address these pressing environmental challenges and ensure the sustainability of our planet for future generations, there is an urgent need to advocate for and promote sustainable consumption practices on a global scale Schiffman and Kanuk (2007). At the heart of sustainable consumption lies the recognition that overconsumption, driven by the pursuit of endless growth and material accumulation, is inherently unsustainable. Instead, there is a growing consensus that the prevailing culture of excess consumption must be replaced

with a more measured and mindful approach to consumption, commonly referred to as “gradual consumption.” This shift entails reevaluating our relationship with material possessions and prioritizing products and services that align with principles of environmental sustainability, social equity, and ethical responsibility.

In recent years, there has been a noticeable shift in societal attitudes towards environmental conservation, with increasing numbers of individuals expressing concern about the state of the planet and the impacts of human activities on ecosystems. This heightened environmental awareness has translated into a growing demand for eco-friendly products and services, placing pressure on businesses to adapt their practices and offerings to meet evolving consumer preferences. However, effecting meaningful change in consumer behavior requires more than just the availability of green alternatives; it necessitates a deeper understanding of the psychological, social, and economic factors that influence consumer decision-making processes. One of

the key challenges in promoting sustainable consumption lies in bridging the gap between consumer attitudes and actions. Despite widespread support for environmental conservation, many consumers struggle to translate their pro-environmental attitudes into concrete behaviors and purchasing decisions. Understanding the underlying drivers of this attitude-behavior gap is critical for designing effective interventions and marketing strategies that encourage sustainable consumption practices.

From a marketing perspective, comprehending consumer perceptions about sustainable products and their motivations for choosing eco-friendly options is essential for developing targeted campaigns and communication strategies. By tapping into consumer values, aspirations, and concerns, businesses can tailor their messaging to resonate with target audiences and foster greater adoption of sustainable products and behaviors. The concept of sustainable consumption is intricately linked to broader principles of sustainable development, as articulated by the Brundtland Commission's seminal definition in "Our Common Future." Sustainable consumption involves not only meeting present needs but also ensuring that future generations have the resources and opportunities to meet their own needs. This necessitates a fundamental reimagining of our economic systems and consumption patterns, with a focus on maximizing well-being while minimizing environmental degradation and social inequalities.

To assess progress towards sustainable development goals (SDGs), it is imperative to develop robust metrics that go beyond traditional economic indicators to encompass broader social and environmental dimensions. This requires redefining notions of progress and prosperity to prioritize holistic well-being and planetary health over

narrow measures of GDP growth and material wealth. Thus, promoting sustainable consumption is not just a matter of environmental stewardship but a fundamental imperative for safeguarding the future of our planet and ensuring the well-being of present and future generations. By embracing principles of sustainability and ethical responsibility, businesses can not only mitigate their environmental footprint but also gain a competitive edge in an increasingly conscious consumer market (Fig.1). Ultimately, fostering sustainable consumption requires a collective effort from businesses, policymakers, civil society, and consumers alike to drive systemic change and create a more equitable and sustainable world. This article contributes to a better understanding of Indian consumers' attitudes towards eco-friendly practices and sustainable products, offering insights for developing strategies and policies. By aligning efforts with current and future policies and comprehending the environmental repercussions, organizations can gain a competitive advantage while contributing to environmental sustainability. Ultimately, fostering sustainable consumption is not just an economic imperative but also a moral obligation to safeguard the planet for future generations.

REVIEW OF LITERATURE

The literature on consumption presents a rich tapestry of perspectives on fostering environmentally sustainable consumption practices, touching upon various concepts and strategies. Two prominent approaches that have garnered attention in recent years are minimalism and decluttering, influenced by Marie Kondo's philosophy. These concepts advocate for reducing material possessions to those that "spark joy" or hold significant value, thereby promoting a more intentional and clutter-free lifestyle. Rani Yaduvanshi

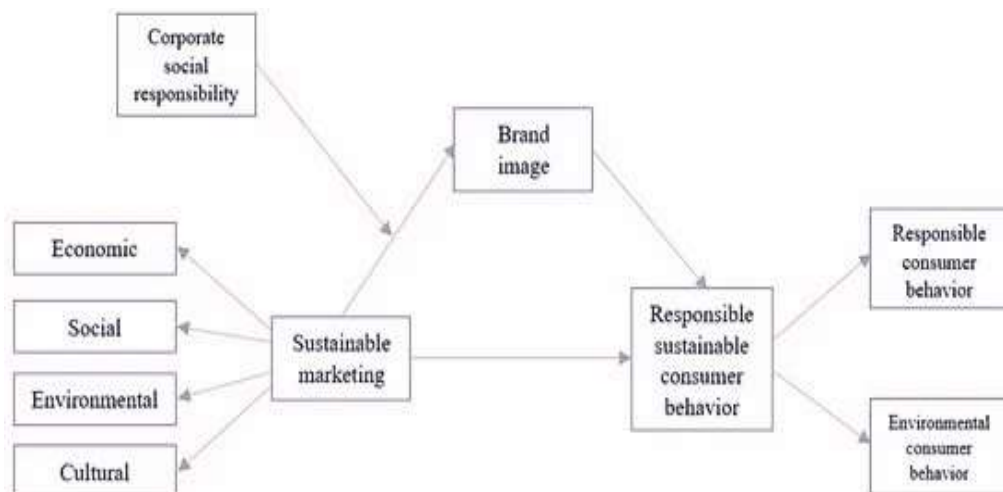


Fig. 1: Classification of Sustainability Marketing.

et al. (2016) While minimalism and decluttering have gained popularity for their potential to simplify one's life and reduce excess consumption, critics argue that they may not fully align to reduce the overall flow of products. This is because decluttered items are often replaced with new purchases at a rapid pace, contributing to a cycle of consumption that perpetuates resource depletion and environmental degradation. Furthermore, McKenzie Mohr (2011) the distinction between anti-materialism and anti-consumerism provides insights into differing philosophies regarding consumption and happiness. Anti-materialism challenges the notion that material possessions bring true happiness and fulfillment, advocating for a simpler, less materialistic lifestyle focused on experiences, relationships, and personal growth. On the other hand, Gupta & Singh (2020) anti-consumerism takes a more radical stance by critiquing the entire culture of consumption itself. It questions the pervasive belief that increased consumption leads to greater happiness and well-being, highlighting the negative social, environmental, and psychological impacts of consumerism. Anti-consumerism advocates for systemic changes in production and consumption patterns to reduce overall resource consumption and promote sustainability.

In the context of anti-consumption as a strategy for environmentally sustainable consumption, Makri et al. (2020) offer a comprehensive classification of various types of consumption resistance. This includes green/sustainable consumption, ethical/moral consumption, and alternative consumption practices. However, some forms of consumer resistance, such as symbolic consumption and brand/product avoidance, were not included in their analysis due to their focus on specific brands or items. Several studies have explored consumer perceptions and behaviors related to sustainable products, particularly in the context of India. Sarkar & Kota (2015) highlight a lack of awareness about sustainable living among Indian consumers, suggesting it as a barrier to adoption. Singh & Verma (2017) delve into the characteristics perceived as key impediments to transitioning to sustainable consumption, including factors such as the local environment and resource availability. Sangvikar et al. (2019) examine marketing prospects for sustainable products in India, noting demographic influences on awareness levels. Prakash (2017) investigates the impact of environmentally friendly packaging on consumer response, while Yaduvanshi et al. (2016) emphasize the importance of waste management in India and common strategies for promoting sustainable practices, such as education and advertising. Bläse et al. (2024) indicate that customer purchase intentions are significantly influenced by both brand reputation and FOMO. This implies that when it comes to fashion purchases, customers consider both the effect of FOMO and a brand's

trustworthiness. Khare & Sadachar (2017) examine the changing patterns of green clothes purchasing behavior among young people in India, with a focus on the interaction of factors such as consumer socialization for environmentally friendly products, previous green behavior, peer influence, and awareness of sustainable clothing. The study of Arora & Manchanda (2021) enhances the existing literature by investigating the correlation between internal environmental locus of control (IELOC) and consumer behavior regarding sustainable clothes. Claudio (2017) highlights the ecological repercussions of the apparel business, including how mass production, consumption, and waste of garments exacerbate numerous environmental issues. Paul et al. (2016) offer significant insights into this issue by employing two prevalent psychological frameworks—the Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA)—to analyze the determinants affecting customers' decisions to acquire green products. Rathod and Bhatt (2013) provide significant insights for shops aiming to augment the attractiveness of their own label clothes collections.

Overall, these studies contribute valuable insights into the complexities of promoting environmentally sustainable consumption, offering nuanced perspectives on consumer behavior, awareness levels, and the role of marketing strategies and policies in driving change. By understanding the challenges and opportunities inherent in promoting sustainable consumption (ref. Fig.2), businesses, policymakers, and practitioners can develop more effective strategies for fostering positive environmental outcomes.

OBJECTIVES OF THE STUDY

- A. To understand consumer awareness towards sustainable products
- B. To investigate the cost-effectiveness of environmentally friendly products
- C. To examine the brand value associated with sustainable practices

Overall, these objectives (ref. Table 1) collectively seek to deepen understanding of consumer behavior and attitudes towards sustainable products, assess the economic viability of environmentally friendly options, and explore the branding implications of sustainable practices. By addressing these objectives, businesses can gain valuable insights to inform their sustainability strategies, drive positive environmental impact, and strengthen their competitive position in the market.

RESEARCH METHODOLOGY

The following research approach has been used to analyze the aforementioned objectives.

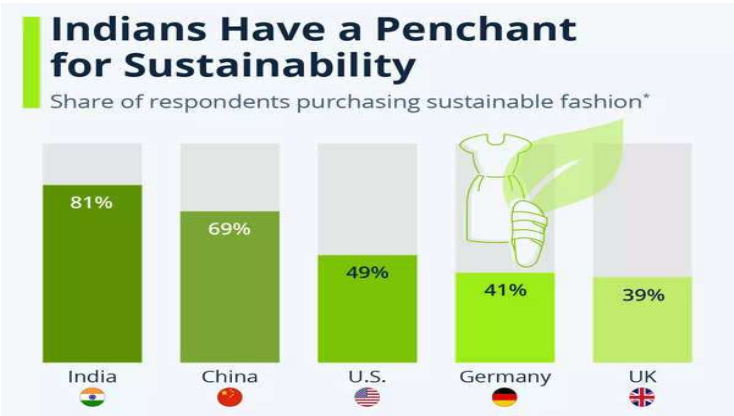


Fig. 2: Illustration of Sustainability Levels.

Table 1: Research Objectives for Sustainable Products.

Objective	Description	Focus
Understand Consumer Awareness	Gain insights into consumer knowledge, perceptions, attitudes, and behaviors toward sustainable products.	Consumer awareness of eco-friendly labels, understanding of sustainability issues, and recognition of environmental impact.
Investigate Cost-Effectiveness	Evaluate the economic viability of environmentally friendly products compared to traditional alternatives.	Comparative analysis of costs associated with production, purchase, use, and lifecycle impact.
Examine Brand Value Association	Explore how sustainability initiatives and commitments impact consumer perceptions and purchasing decisions.	Consumer trust, loyalty, and willingness to pay a premium for sustainable brands.

- A. **Data Gathering:** Primary data have been gathered for this investigation. The data-gathering process employed a comprehensive and systematic approach to collect primary data relevant to the research objectives (ref. Table 2). By leveraging a well-designed questionnaire, targeting a diverse sample, and carefully structuring the data collection process, the study aims to generate insights that contribute to a deeper understanding of consumer perceptions and behaviors toward sustainability.
- B. **Statistical Tools:** In our study, we utilized Python, another powerful programming language renowned for

its versatility in data analysis and visualization. While our statistical analyses were conducted using Python, it’s important to note that R, with its extensive suite of statistical and graphical tools, is a widely used software package in the field of data science and statistical analysis.

Python offers a plethora of libraries and packages tailored for data manipulation, statistical analysis, and visualization, making it a popular choice among data scientists and researchers. In our analysis, we leveraged libraries such as pandas for data manipulation and matplotlib for data visualization, both of which are widely used in the Python ecosystem.

Table 2: Data Gathering Process for Sustainable Product Research.

Aspect	Description
Questionnaire Design	A meticulously designed questionnaire was used to collect primary data. The questionnaire addressed all aspects of consumer perceptions, brand association, and product awareness related to sustainability. Wording, order of questions, and structure were carefully considered to minimize bias and ensure clarity.
Sampling Method	A purposive sampling approach may have been used to target individuals knowledgeable about sustainable consumption practices. The sample aimed for diversity across demographics (age, location, socioeconomic background, environmental awareness).
Data Collection Period	Data collection occurred over two months (July-August 2021). This strategic timeframe aimed to capture potential variations in consumer behavior across seasons.
Sample Size	115 participants were included in the study. While modest, the sample size may be sufficient for meaningful conclusions if representative and rigorously collected. Focus on qualitative insights may further enhance data richness.

DATA INTERPRETATION

Supervised Learning Model

The model used in the program is called the Supervised Learning Model. Specifically, it's a Classification model.

This model predicts the class labels based on input features. In this case, it could predict whether an individual is aware of sustainable products based on demographic information such as age, education, working status, etc. The classification task involves assigning a label to each instance from a finite

Table 3: Data Analysis and Visualization

Algorithm 1 Data Analysis and Visualization in Python

Require: Dataset in CSV format.

Ensure: Visualization of awareness of sustainable products by age group and working status

```

1: Import necessary libraries: pandas, matplotlib
2: Load the dataset into a pandas DataFrame
3: Display the first few rows of the data frame
4: Calculate the percentage of people aware of sustainable products
5: visualize the data using matplotlib
6:
7: Input: Dataset file path
8: Output: Bar plot showing awareness of sustainable products by age group and working status
9:
10: Procedure:
11:   Import pandas as pd
12:   Import matplotlib.pyplot as plt
13:
14:   Load the dataset into a DataFrame: df=pd.read_csv("Dataset.csv")
15:   Display the first few rows of the data frame: print(df.head())
16:
17:
18:   Calculate the percentage of people aware of sustainable products:
19:   total_response =len(df)
20:   aware_responses =len(df[df['Are you aware of sustainable products?']=='Yes'])
21:   aware_percentage=(aware_responses/total_responses)*100
22:   print(f"Percentage of people aware of sustainable products:    {aware_percentage:.2f}%")
23:
24:   Visualize the data using matplotlib:
25:   aware_by_age =df.groupby('Age')['Are you aware of sustainable products?'].value_counts(normalize=True).unstack().fillna(0)
26:   aware_by_age =df.groupby('Age')['Are you aware of sustainable products?'].value_counts(normalize=True).unstack().fillna(0)
27:   plt.title('Awareness of sustainable products by Age Group')
28:   plt.xlabel('Age Group')
29:   plt.ylabel('Percentage')
30:   plt.xticks(rotation=45)
31:   plt.legend(title+'Awareness')
32:
33:   Add another visualization for working status and location:
34:   working_status=['working', 'Not working']
35:   urban=[47,12]
36:   rural=[10,18]
37:   index=range(len(working_status))
38:   bar_width=0.35
39:   plt.figure()
40:   plt.bar(index,urban,bar_width,label='Urban')
41:   plt.bar(index+rural,bar_width, label='Rural')
42:   plt.xlabel('Working Status')
43:   plt.ylabel('Awareness')
44:   plt.title('Awareness of Sustainable Products by Working Status and Location')
45:   plt.xticks([i+bar_width/2 for i in index],working_status)
46:   plt.legend()
47:   plt.tight_layout()
48:   plt.show()=0

```


set of labels (in this case, “Yes” or “No” for awareness of sustainable products).

The study is presented in Algorithm 1 (Table 3). aimed to explore consumer awareness of sustainable products using a dataset comprising responses from individuals across various demographic groups. The dataset was initially loaded into a Panda DataFrame for analysis, and the structure and content of the data were examined through a display of the first few rows. Subsequently, the analysis delved into understanding the extent of consumer awareness regarding sustainable products.

Output Interpretation

Upon analysis of the dataset, it was found that a considerable percentage of respondents exhibited awareness of sustainable products, indicating a growing trend towards environmental consciousness among consumers. This insight is crucial in understanding the evolving preferences and priorities of individuals, particularly in the context of sustainability and eco-friendly practices.

The visualization presented in the form of a stacked bar plot (Fig. 3), offers a comprehensive depiction of awareness levels across different age groups. Each bar in the plot represents a distinct age category, while the height of the bar signifies the percentage of individuals within that age group who reported being aware of sustainable products. By examining the distribution of awareness across various age demographics, notable trends or disparities may emerge, providing valuable insights for stakeholders in the sustainability domain. The visualization may reveal that certain age groups exhibit higher levels of awareness compared to others, indicating potential target demographics for sustainable product campaigns or initiatives. Conversely,

it may also highlight age groups with lower awareness levels, signaling areas for further education or outreach efforts to enhance awareness and promote sustainable consumption habits.

Furthermore, the stacked nature of the plot allows for the identification of variations in awareness levels within each age group. By distinguishing between different response categories (e.g., “Yes” and “No” for awareness), the plot facilitates a nuanced understanding of the distribution of responses within each demographic segment. The additional bar chart illustrates awareness levels based on working status and location. This visualization enables stakeholders to understand how awareness varies across different demographic segments. For example, it may reveal that working-class individuals in urban areas demonstrate higher awareness of sustainable products compared to other groups. Such insights are crucial for tailoring strategies effectively, whether for businesses, policymakers, or advocacy groups, to foster greater engagement and adoption of sustainable practices among diverse consumer populations. Overall, the output interpretation underscores the importance of understanding consumer awareness patterns within specific demographic cohorts. Such insights enable businesses, policymakers, and advocacy groups to tailor their strategies effectively, fostering greater engagement and adoption of sustainable practices among diverse consumer populations.

Analyzing Consumer Attitudes: Sustainability Perception and Brand Engagement

In today’s increasingly eco-conscious world, consumer attitudes towards sustainability play a pivotal role in shaping market dynamics and brand engagement strategies. Two

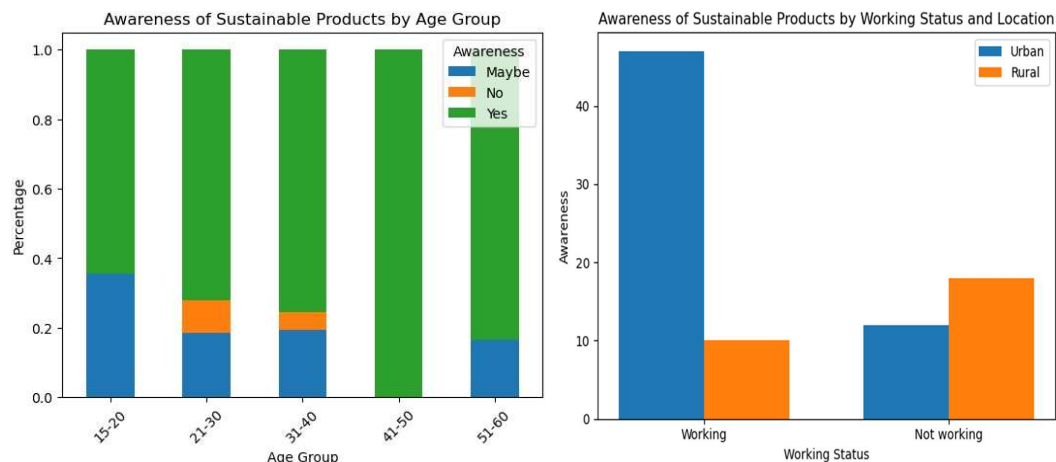


Fig. 3: Depiction of Awareness Levels.

Table 4: Investigating the cost-effectiveness of environmentally friendly products.

Working status/Usage of sustainable products/Affordability of Sustainable products	Working		Not working	
	Yes	No	Yes	No
Yes	30	3	16	6
No	13	1	7	1
Maybe	19	3	10	6

critical dimensions of consumer perception of environmentally friendly products and awareness of sustainable brand practices are key areas of focus for businesses aiming to align their offerings with evolving societal values.

Table 4 suggests that a significant number of individuals, both working and not working, find environmentally friendly products affordable. This indicates a positive attitude towards sustainable options. However, there are still some individuals who find sustainable products not affordable, particularly among those who are not working. This might imply economic barriers to adopting environmentally friendly alternatives for this group. The “Maybe” category suggests there is a portion of the population open to the idea of using sustainable products but may need more information or incentives to make the switch. Overall, the data highlights the importance of addressing affordability concerns and promoting awareness about the environmental benefits of sustainable products to encourage their widespread adoption.

Table 5 suggests varying levels of awareness of sustainable brands across different age groups. This indicates that younger age groups might be more aware or interested in sustainable practices compared to older age groups. It's notable that in some age groups, there are individuals who are not aware of sustainable brands at all. This underscores the importance of increasing awareness and education about sustainability across all age demographics. The presence of individuals in the “Maybe” category indicates a level of uncertainty or ambivalence towards sustainable brands. This highlights an opportunity for companies and organizations to engage with these individuals and provide more information about the environmental benefits of sustainable practices. Overall, the data suggests that there is potential for increasing the brand value associated with sustainable practices, particularly by targeting younger age groups and improving awareness and understanding of sustainability across all demographics.

In essence, these tables serve as invaluable tools for businesses seeking to navigate the complex terrain of consumer attitudes toward sustainability. By deciphering the interplay of factors such as affordability, age, and brand awareness, organizations can craft more nuanced and effective strategies to foster a culture of environmental stewardship among consumers, thereby driving positive ecological impact while enhancing brand equity.

Sustainable Product Perception: Exploratory Data Analysis

Table 5: Examining the brand value associated with sustainable practices.

Age	15-20		21-30		31-40		41-50		51-60	
	yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Yes	1	10	7	18	5	28	3	7	0	4
No	0	0	2	3	0	1	0	0	1	0
May be	1	2	4	9	1	5	1	1	1	0

Table 6: Exploratory Data Analysis

Algorithm 2 Exploratory Data Analysis(EDA)
<ol style="list-style-type: none"> 1: Import the panda's library as pd and the matplotlib.pyplot library as plt. 2: Read the dataset from the CSV file into a pandas DataFrame (df). 3: Remove rows with missing values from the DataFrame using dropna() method. 4: Group the DataFrame (df) by 'Are you aware of sustainable products?' and 'Can Sustainable marketing practices make the product affordable?' columns and count the occurrences 5: Unstack the grouped data to create a pivot table. 6: Create a bar plot with stacked bars for Perception of Affordability vs. Awareness of Sustainable Products. 7: Set title, labels for x and y-axis, and legend. 8: Display the plot. 9: Group the DataFrame (df) by 'Education' and 'Can Sustainable marketing practices make the product affordable?' columns and count the occurrences. 10: Unstack the grouped data to create a pivot table. 11: Create a bar plot with stacked bars for the Perception of Affordability vs. Education Level. 12: Set title, labels for x and y-axis and legend. 13: Display the plot.=0

The program in Table 6 utilizes data visualization techniques to explore and analyze perceptions regarding the affordability of sustainable products. By visualizing the data, we gain insights into how awareness levels and educational backgrounds influence individuals' perceptions, which can be valuable for marketing strategies and policy-making in the sustainability domain.

Output Interpretation

The output program provides insights into individuals' perceptions of sustainable products, particularly regarding their awareness and the perceived affordability of such products, analyzed against their education level.

The first plot, "Perception of Affordability vs. Awareness of Sustainable Products," (Fig. 4) illustrates how respondents' awareness of sustainable products correlates with their perception of affordability. The x-axis represents the level of awareness of sustainable products, while the y-axis indicates the number of respondents. The stacked bars show the distribution of respondents based on their perception of affordability, with light blue representing those who perceive sustainable products as affordable and light green representing those who don't.

representing those who don't. Interpreting this plot, we can observe the distribution of respondents across different levels of awareness. For instance, among respondents with high awareness of sustainable products, a significant portion perceive them as affordable, as indicated by the larger light blue section. Conversely, for respondents with low awareness, the perception of affordability appears less pronounced.

The second plot, "Perception of Affordability vs. Education Level," (Fig.4) delves into how education level influences individuals' perceptions of the affordability of sustainable products. Here, the x-axis represents different levels of education, while the y-axis indicates the number of respondents. Similar to the first plot, the stacked bars show the distribution based on the perception of affordability. Analyzing this plot provides insights into how education level impacts the perception of affordability. For instance, among respondents with higher education levels, there seems to be a larger proportion who perceive sustainable products as affordable compared to those with lower education levels. This suggests that education might play a role in shaping perceptions regarding the affordability of sustainable products.

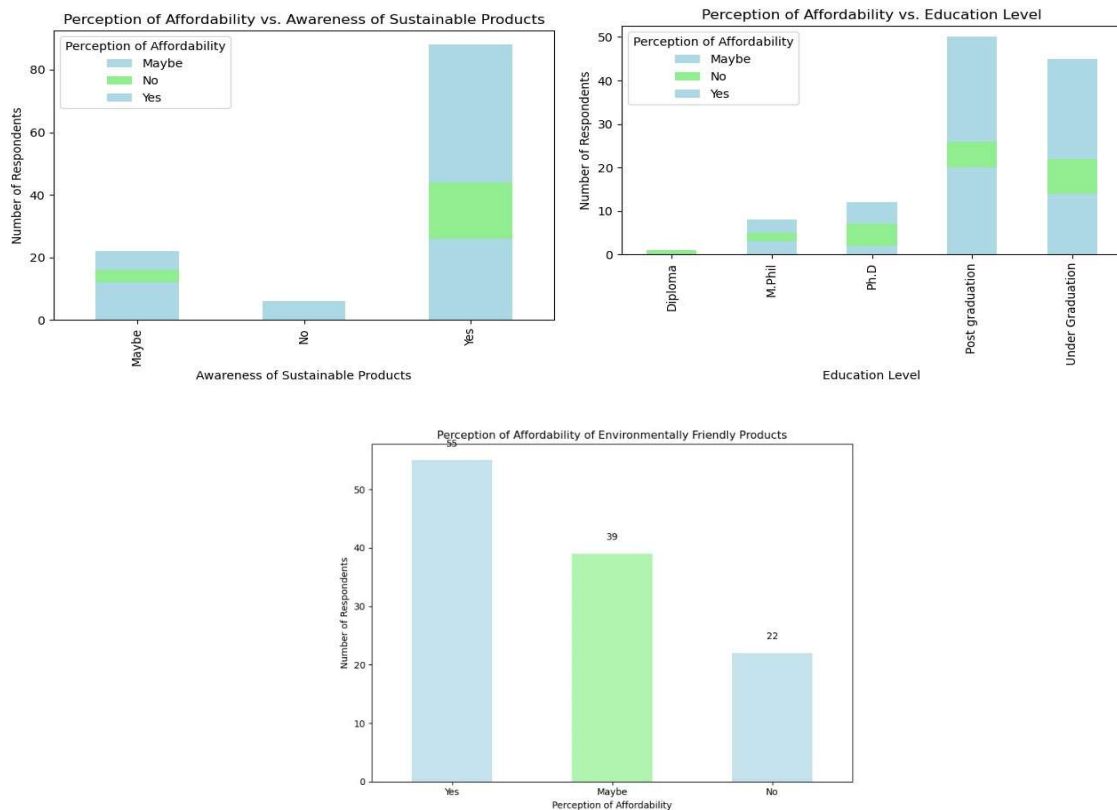


Fig. 4: Perception Analysis.

The third bar plot illustrates the distribution of respondents' perceptions regarding the affordability of sustainable products. The x-axis represents the different perceptions of affordability, while the y-axis indicates the number of respondents who hold each perception. The bars are color-coded, with light blue representing respondents who perceive sustainable products as affordable and light green representing those who do not. Interpreting this plot, we gain valuable insights into the general sentiment regarding the affordability of environmentally friendly products. For instance, if the number of respondents who perceive such products as affordable is significantly higher than those who don't, it suggests a positive inclination toward embracing sustainable consumption practices. Conversely, if the opposite holds true, it indicates potential barriers or challenges in adopting environmentally friendly products due to perceived cost issues. Understanding individuals' perceptions of affordability is crucial for policymakers, businesses, and environmental advocates. It helps tailor strategies to promote sustainable consumption patterns effectively. For instance, if the perception of affordability is low, targeted initiatives such as subsidies, incentives, or marketing campaigns highlighting long-term cost savings could be devised to encourage more widespread adoption of environmentally friendly products. Conversely, if the perception is already positive, efforts might focus on further enhancing accessibility and availability to capitalize on the existing favorable sentiment.

Overall, these visualizations offer valuable insights into the relationship between awareness, education, and the perceived affordability of sustainable products, providing valuable information for policymakers and businesses aiming to promote environmentally friendly consumption patterns.

FINDINGS

1. **Consumer Understanding:** The data indicates a positive trend with 75.86% of consumers demonstrating an understanding of the importance of sustainable products. This suggests a growing awareness and consciousness among consumers regarding sustainable lifestyle choices.
2. **Usage of Environmentally Friendly Products:** A significant majority (82.6%) of consumers have used environmentally friendly products at some point. However, the data also suggests that usage hasn't been committed to any specific product, indicating a need for further exploration into consumer preferences and behavior regarding sustainable products.
3. **Awareness of Sustainable Brands:** Despite the high usage of environmentally friendly products,

a substantial portion (76.5%) of consumers is still unfamiliar with sustainable brands. Notably, "Oh Scrap Madras" emerges as the most preferred brand among those familiar with sustainable brands, suggesting potential areas for brand promotion and awareness campaigns.

4. **Perception of Product Pricing:** Nearly half (47.8%) of consumers believe that sustainable methods are inexpensive. However, a significant percentage of consumers are skeptical about product pricing, indicating a perceived barrier to adoption. This finding underscores the importance of pricing strategies and communication of value propositions for sustainable products.
5. **Impact on Brand Value:** The majority (72.2%) of consumers feel that sustainable practices increase brand value. This suggests that integrating sustainability into business practices can positively influence consumer perceptions and brand reputation.
6. **Urban vs. Rural Awareness:** The data highlights a disparity in awareness levels between urban and rural consumers, with urban consumers showing higher awareness of sustainable products compared to their rural counterparts. This finding underscores the importance of tailored marketing and educational initiatives to reach diverse consumer segments effectively.

The findings suggest both opportunities and challenges in the adoption of sustainable products. While there is a growing understanding and usage of environmentally friendly products, there is still a need for increased awareness, brand familiarity, and addressing perceived barriers such as pricing concerns. Additionally, the urban-rural disparity highlights the importance of targeted interventions to ensure inclusivity in sustainability initiatives.

CONCLUSIONS

In conclusion, the findings of this study underscore the growing influence of sustainability on consumer buying patterns, driven by increasing awareness of social responsibility, inclusivity, and environmental concerns. It is evident that consumers are becoming more conscious of their overall consumption habits and are showing a willingness to prioritize sustainability in their purchasing decisions. However, despite the strong intentions to adopt sustainable practices, there exists a notable gap between consumer beliefs and actual knowledge about sustainability. This highlights the need for ongoing education and awareness initiatives to bridge this gap and empower consumers to make informed choices.

One particularly encouraging finding is that consumers are willing to pay a premium for ecologically friendly products. This presents a significant opportunity for businesses to invest in sustainable practices and products, knowing that there is a receptive market willing to support such initiatives. Nevertheless, it is clear from the survey results that there is still a lack of familiarity with sustainable brands among consumers. This underscores the importance of developing effective brand promotion strategies to build trust and credibility in the marketplace. Businesses should consider leveraging marketing campaigns, partnerships, and endorsements to raise awareness of their sustainability initiatives and differentiate themselves from competitors.

FUTURE WORK

In considering future avenues of research, several key areas warrant further exploration to deepen our understanding of consumer behavior and attitudes toward sustainability:

Longitudinal Studies: Conducting longitudinal studies to track changes in consumer behavior and attitudes over time would provide valuable insights into the evolving nature of sustainability trends. By examining how consumer preferences, purchasing habits, and awareness levels shift in response to changing societal, economic, and environmental factors, researchers can identify emerging patterns and anticipate future trends.

Consumer Education and Awareness: Future research could focus on developing and evaluating the effectiveness of various educational interventions aimed at enhancing consumer awareness and understanding of sustainability issues. This could involve conducting experimental studies to assess the impact of different communication strategies, educational programs, and information campaigns on consumer knowledge, attitudes, and behaviors related to sustainability.

Psychological and Behavioral Drivers: Delving deeper into the psychological and behavioral drivers of sustainable consumption would provide valuable insights into the underlying motivations and decision-making processes of consumers. Research could explore factors such as social norms, perceived social responsibility, environmental values, and personal identity in shaping sustainable purchasing decisions. Understanding these psychological mechanisms can inform the development of targeted interventions and marketing strategies to promote sustainable behavior change.

Market Segmentation and Targeting: Examining market segmentation and targeting strategies based on consumer attitudes and preferences towards sustainability could help businesses better tailor their products, services, and

marketing messages to different consumer segments. By identifying distinct consumer segments with varying levels of environmental consciousness and willingness to engage in sustainable practices, businesses can develop more effective strategies for reaching and engaging their target audience.

Technological Innovations: Investigating the role of technology and innovation in driving sustainable consumption offers promising avenues for future research. This could involve exploring the adoption and impact of technological solutions such as eco-friendly products, sustainable packaging materials, recycling technologies, and digital platforms for promoting sustainable behavior. Research in this area can help identify opportunities for leveraging technology to facilitate and incentivize sustainable consumption practices.

Cross-Cultural Perspectives: Examining cross-cultural differences in consumer attitudes and behaviors towards sustainability would provide valuable insights into the cultural, social, and economic factors that influence sustainable consumption patterns across different regions and demographics. Comparative studies across diverse cultural contexts can help identify universal principles as well as culturally specific factors that shape consumer responses to sustainability initiatives.

Policy and Regulatory Frameworks: Finally, future research could explore the role of policy and regulatory frameworks in promoting sustainable consumption at both the individual and institutional levels. This could involve evaluating the effectiveness of existing policies, incentives, and regulations in incentivizing sustainable practices, as well as identifying opportunities for policy interventions to address barriers and catalyze positive change.

By addressing these research priorities and advancing our understanding of consumer behavior and attitudes toward sustainability, scholars, and practitioners can contribute to the development of more effective strategies for promoting environmentally sustainable consumption and fostering positive social and environmental outcomes.

REFERENCES

- Arora, N. and Manchanda, P., 2021. Investigating the relationship between internal environmental locus of control and behaviour towards sustainable apparel: The mediating role of intention to purchase. *Transnational Marketing Journal*, 9(3). <https://doi.org/10.33182/tmj.v9i3.1305>.
- Bläse, R., Filser, M., Kraus, S., Puimalainen, K. and Moog, P., 2024. NonSustainable buying behavior: How the fear of missing out drives purchase intentions in the fast fashion industry. *Business Strategy and the Environment*, 33(2), pp.626-641.
- Claudio, L., 2017. Waste couture: Environmental impact of the clothing industry. *Environmental Health Perspectives*, 115(9), pp.448-454. <https://doi.org/10.1289/ehp.115-a449>.

- Gupta, K. and Singh, N., 2020. Consumer attitude towards sustainable living in India. *Social Responsibility Journal*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/srj-03-2018-0081>.
- Khare, A. and Sadachar, A., 2017. Green apparel buying behaviour: A study on Indian youth. *International Journal of Consumer Studies*, 41(5), pp.558-569. <https://doi.org/10.1111/ijcs.12367>.
- Kumar, A., Prakash, G. and Kumar, G., 2021. Does environmentally responsible purchase intention matter for consumers? A predictive sustainable model developed through an empirical study. *Journal of Retailing and Consumer Services*, 58, p.102270. <https://doi.org/10.1016/j.jclepro.2017.08.106>.
- Makri, K., Schlegelmilch, B.B., Mai, R. and Dinhof, K., 2020. What we know about anticonsumption: An attempt to nail jelly to the wall. *Psychology & Marketing*, 37(2), pp.177-215. <https://doi.org/10.1002/mar.21319>.
- McKenzie-Mohr, D., 2011. *Fostering sustainable behavior: An introduction to community-based social marketing*. New Society Publishers.
- Paul, J., Modi, A. and Patel, J., 2016. Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, 29(29), pp.123-134.
- Prakash, G. and Pathak, P., 2017. Intention to buy eco-friendly packaged products among young consumers of India: A study on developing nation. *Journal of Cleaner Production*, 141, pp.385-393. <https://doi.org/10.1016/j.jclepro.2016.09.116>.
- Rani Yaduvanshi, N., Myana, R. and Krishnamurthy, S., 2016. Circular economy for sustainable development in India. *Indian Journal of Science and Technology*, 9(46). <https://doi.org/10.17485/ijst/2016/v9i46/107325>.
- Rathod, C.B. and Bhatt, N.H., 2013. Role of psychological factors in purchase behaviour with reference to private label apparels. *Asia-Pacific Journal of Management Research and Innovation*, 9(2), pp.191-200. <https://doi.org/10.1177/2319510x13504333>.
- Sangvikar, B., Pawar, A., Kolte, A., Mainkar, A. and Sawant, P., 2019. How does green marketing influence consumers? the market trend examination towards environmentally sustainable products in emerging Indian cities. *International Journal of Recent Technology and Engineering*, 8(3S), pp.561-571. <https://doi.org/10.35940/ijrte.c1114.1083s19>.
- Sarkar, P., Kota, S. and Kumar, B., 2015. Understanding Consumers' Perceptions of Sustainable Products in India. In *ICoRD'15-Research into Design Across Boundaries Volume 2: Creativity, Sustainability, DfX, Enabling Technologies, Management and Applications* (pp. -99-112). Springer India. https://doi.org/10.1007/978-81-322-2229-3_9.
- Schiffman, L.G. and Kanuk, L.L., 2007. *Consumer behavior*. 9th ed. Pearson Prentice Hall.
- Singh, A. and Verma, P., 2017. Factors influencing Indian consumers' actual buying behaviour towards organic food products. *Journal of Cleaner Production*, 167, pp.473-483. <https://doi.org/10.1016/j.jclepro.2017.08.106>.