

"Household Sustainability Behavior: A Comparative Analysis of Rural and Urban Consumers"

Ms. Poonam Govekar

Department of Commerce, Sant Sohirobanath Ambiyee Govt. College & Research Centre, Pernem, Goa, India

DOI: <https://doi.org/10.47772/IJRISS.2026.100500867>

Received: 24 May 2026; Accepted: 30 May 2026; Published: 16 June 2026

ABSTRACT

This study investigates the adoption of sustainable household practices and the use of sustainable products among rural and urban households in Goa. It aims to analyze household sustainability behavior, compare rural and urban respondents, and examine the relationship between sustainability practices and the adoption of sustainable products. Primary data were collected from 310 respondents using a structured questionnaire via a stratified convenience sampling approach involving rural and urban households across selected talukas in North Goa. The respondents included students, homemakers, working professionals, and other household consumers. Descriptive statistics, reliability analysis, independent-samples t-tests, correlation analysis, regression analysis, and exploratory factor analysis were conducted using Jamovi. The results indicated moderate to high levels of sustainability-oriented behavior among respondents. Rural households exhibited significantly higher sustainability practices and greater adoption of sustainable products compared to urban households. Reliability analysis confirmed excellent internal consistency of the measurement scales. Correlation and regression analyses demonstrated a strong positive relationship between sustainability practices and sustainable product adoption. Exploratory factor analysis identified a single dominant factor representing household sustainability orientation. The study concludes that environmentally responsible household behavior positively influences the adoption of sustainable household products in Goa. These findings contribute to the literature on sustainable consumption and offer practical implications for policymakers, environmental agencies, and sustainability advocates.

Keywords: Sustainable Household Practices, Sustainable Product Adoption, Rural Consumers, Urban Consumers, Consumer Behavior

INTRODUCTION

Environmental sustainability has become a major global concern due to rapid urbanization, increased waste generation, climate change, depletion of natural resources, and unsustainable consumption patterns. Households are increasingly recognized as key contributors to sustainable development, as daily household activities directly affect energy consumption, water usage, waste generation, and environmental quality. As a result, sustainable household practices and consumption behavior have received significant academic and practical attention globally. Sustainable household practices are environmentally responsible actions undertaken within households to minimize negative environmental impacts and promote efficient resource use. These practices include energy conservation, water management, reuse of household items, responsible waste disposal, composting, and reduced reliance on disposable products. Additionally, the increasing availability of sustainable household products, such as energy-efficient appliances, reusable containers, biodegradable cleaning agents, and water-saving devices, has encouraged consumers to adopt more sustainable lifestyles. Numerous researchers have emphasized the increasing importance of sustainable consumption behavior in achieving environmental sustainability. Peattie, K. (2010) noted that green consumption behavior plays a significant role in reducing environmental degradation through environmentally responsible purchasing and consumption practices. Similarly, Stern, P. C. (2000) argued that environmentally significant behavior is influenced by personal values, ecological awareness, and a sense of moral responsibility toward environmental protection. Research on green purchase behavior has identified environmental concern, sustainability

awareness, attitudes, and social influence as major determinants of sustainable consumption behavior. Joshi, Y., & Rahman, Z. (2015) found that environmental concern and perceived consumer effectiveness positively influence green purchasing behavior. Similarly, Paul, J., Modi, A., & Patel, J. (2016) reported that consumer attitudes and environmental responsibility significantly influence green product adoption.

In India, sustainable consumption behavior has received increasing attention due to rising environmental awareness and evolving consumer lifestyles. Studies by Biswas, A., & Roy, M. (2015) and Khare, A. (2015) indicate that Indian consumers are becoming more conscious of sustainable consumption and eco-friendly product usage. Recent research by Francis, A., & Sarangi, G. K. (2022), as well as Sinha, R., & Verma, P. (2022), further underscores the growing importance of environmental awareness and sustainability orientation among Indian households and millennials. Goa presents a unique context for examining household sustainability behavior due to rapid urbanization. This study focuses on sustainable household practices and the adoption of sustainable products among rural and urban households in North Goa. It aims to compare sustainability behavior between rural and urban consumers and to examine the relationship between sustainability practices and the adoption of sustainable products. Additionally, the study analyzes the influence of sustainability practices on households' adoption of sustainable products in Goa. The study's findings may be useful to policymakers, local self-government institutions, environmental organizations, sustainability advocates, and marketers of eco-friendly products in designing awareness programs and sustainability-oriented initiatives. The study also highlights the importance of encouraging sustainable household behavior, such as waste reduction, reuse practices, energy conservation, and the adoption of environmentally friendly products, for long-term environmental sustainability.

Research Objectives

General Objective: To examine the adoption of sustainable household practices and sustainable product usage among rural and urban households in Goa.

Specific Objectives:

- To analyze the level of home and household sustainability practices among respondents in Goa.
- To examine the adoption of sustainable household products among respondents in Goa.
- To compare sustainability practices between rural and urban households in Goa.
- To compare sustainable household product adoption between rural and urban households in Goa.
- To examine the relationship between household sustainability practices and sustainable product adoption.
- To analyze the impact of household sustainability practices on sustainable product adoption in Goa.

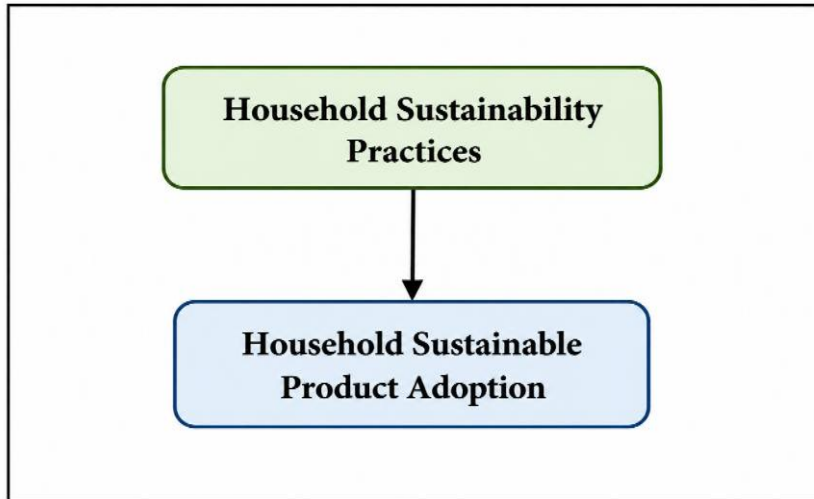
Research Hypotheses

- H1: There is a significant difference in household sustainability practices between rural and urban households in Goa.
- H2: There is a significant difference in sustainable household product adoption between rural and urban households in Goa.
- H3: There is a significant relationship between household sustainability practices and sustainable product adoption in Goa.
- H4: Household sustainability practices significantly influence households' adoption of sustainable products in Goa.

Conceptual Framework

The study's conceptual framework assumes that home and household sustainability practices significantly influence consumers' adoption of sustainable products.

Figure 1 Conceptual Framework of Household Sustainability Practices and Sustainable Product Adoption



Source: Developed by the Researcher

The study's conceptual framework posits that households that engage in environmentally responsible, sustainability-oriented practices are more likely to adopt sustainable household products. Household sustainability practices include energy conservation behaviors such as switching off lights, fans, and electrical appliances when not in use; water conservation practices such as careful water management, reuse of water, and controlled household water usage; and reuse-oriented behavior involving the extended use of containers, bottles, clothes, and other household items, waste management practices such as avoiding disposable plastic items, preventing the burning of household waste, disposing of waste through environmentally responsible methods, composting biodegradable waste, and repairing household items instead of replacing them immediately. These practices reflect environmentally conscious household behavior aimed at minimizing waste generation, conserving resources, and reducing environmental impact. The study assumes that households actively following such sustainable practices are more likely to adopt sustainable household products, including energy-efficient lighting systems such as LED bulbs, energy-rated appliances, reusable storage containers, biodegradable cleaning products, and water-saving devices or methods. Therefore, the framework establishes a positive relationship between household sustainability practices and the adoption of sustainable household products among consumers in Goa.

LITERATURE REVIEW

Sustainable consumption and environmentally responsible household behavior have become important areas of academic research due to increasing environmental concerns and the growing need for sustainable development. Researchers worldwide have examined factors influencing green purchasing behavior, sustainable consumption patterns, and household sustainability practices. Ajzen, I. (1991) proposed the Theory of Planned Behavior, which explains that attitudes, subjective norms, and perceived behavioral control influence consumer behavior. The theory has been widely used in sustainability research to explain environmentally responsible purchasing behavior and eco-friendly consumption practices. Peattie, K. (2010) emphasized that sustainable consumption behavior involves using products and services that minimize environmental impact while satisfying consumer needs. The study highlighted the importance of sustainable household practices, such as waste reduction, energy conservation, and environmentally responsible consumption. Barr, S., & Gilg, A. (2006) examined sustainable lifestyles and household environmental practices. The study found that household sustainability behavior is strongly associated with environmental responsibility, lifestyle orientation, and conservation practices. Joshi, Y., & Rahman, Z. (2015) identified

environmental concern, environmental knowledge, social influence, and perceived consumer effectiveness as important determinants of green purchase behavior. The study highlighted that environmentally conscious consumers are more likely to adopt sustainable products and eco-friendly lifestyles. Similarly, Paul, J., Modi, A., & Patel, J. (2016) applied the Theory of Planned Behavior and found that environmental concern and consumer attitudes significantly influence green product purchase intention. The study emphasized the growing role of sustainability awareness in shaping consumer purchasing decisions.

Studies focusing on Indian consumers have also highlighted increasing environmental consciousness and sustainable consumption orientation. Biswas, A., & Roy, M. (2015) found that environmental concern, social value, and functional value significantly influence sustainable consumption behavior among Indian consumers. Likewise, Khare, A. (2015) observed that environmental awareness and social responsibility positively influence green purchasing behavior in India.

Recent studies have further strengthened the understanding of sustainable consumer behavior in the Indian context. Francis, A., & Sarangi, G. K. (2022) found that sustainability awareness and responsible consumption attitudes significantly influence sustainable purchasing behavior among Indian millennials. Similarly, Sinha, R., & Verma, P. (2022) identified environmental concern and eco-conscious attitudes as major determinants of green purchase behavior among Indian households. Yadav, R., & Pathak, G. S. (2017) revealed that environmental concern, subjective norms, and perceived behavioral control significantly influence green purchasing intentions in developing nations. The study suggested that sustainability-oriented attitudes positively affect environmentally responsible consumption behavior. Dangelico, R. M., Nonino, F., & Pompei, A. (2021) examined determinants of green purchase behavior and found that environmental awareness, consumer attitudes, and sustainability perceptions strongly influence eco-friendly purchasing decisions. Similarly, Do Paço, A., Shiel, C., & Alves, H. (2019) proposed that ecological concern and environmental attitudes significantly affect sustainable purchasing behavior. Studies have also emphasized the growing importance of sustainable household practices such as water conservation, waste management, composting, reuse behavior, and reduced use of disposable products. Kennedy, R. F., et al. (2024) observed that environmentally conscious consumers are increasingly integrating sustainable household practices and eco-friendly products into their daily lifestyles.

Existing literature has extensively examined sustainable consumption behavior, green purchasing intentions, and environmentally responsible consumer behavior. Several studies have focused on factors influencing green product adoption, environmental concern, and sustainability awareness among consumers. However, limited research has specifically examined household sustainability practices and sustainable product adoption among rural and urban households in Goa. At the same time, household-level sustainability behavior remains comparatively underexplored. Further, limited studies have comparatively analyzed sustainability practices between rural and urban households using advanced statistical tools such as correlation, regression, and exploratory factor analysis. Therefore, the present study attempts to address this gap by examining sustainability practices and sustainable product adoption among rural and urban households in North Goa.

RESEARCH METHODOLOGY

The present study adopted a descriptive-analytical research design to examine the adoption of sustainable household practices and the use of sustainable products among households in Goa. The study used both primary and secondary data. Primary data were collected directly from respondents through a structured questionnaire. Secondary data were collected from research articles, journals, books, and online sources related to sustainability practices, sustainable consumption, and environmental behavior. The population of the present study comprises consumers residing in the North Goa district, including both urban (municipal) and rural (village) areas. The respondents included students, working professionals, homemakers, and other consumers who make household-related consumption decisions. A total of 310 respondents were selected for the study. The study employed a stratified convenience sampling technique. Initially, the population was divided geographically into the talukas of North Goa: Bardez, Bicholim, Pernem, Sattari, and Tiswadi. Respondents were further categorized into urban areas (municipalities) and rural areas (villages). Within these areas, respondents were selected based on their availability and willingness to participate in the survey. A structured questionnaire was used as the primary data collection instrument. The questionnaire consisted of two major

sections: Household Sustainability Practices and Sustainable Household Product Adoption. The responses were measured using a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The questionnaire items were developed based on the existing literature on sustainable consumption and household sustainability behavior. Reliability and validity of the instrument were assessed using Cronbach's Alpha, KMO Measure of Sampling Adequacy, Bartlett's Test of Sphericity, and Exploratory Factor Analysis. The collected data were analyzed using Jamovi. The following statistical tools were used for analysis: Descriptive Statistics, Reliability Analysis (Cronbach's Alpha), Independent Samples t-Test, Pearson Correlation Analysis, Linear Regression Analysis, and Exploratory Factor Analysis (EFA).

Table 1 KMO and Bartlett's Test

Test	Value
KMO Measure of Sampling Adequacy	0.959
Bartlett's Test χ^2	4027
df	105
p-value	<0.001

Source: Primary Data

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was 0.959, indicating excellent adequacy of the sample for factor analysis. Bartlett's Test of Sphericity was statistically significant ($\chi^2 = 4027$, $df = 105$, $p < 0.001$), confirming that the variables were sufficiently correlated to perform Exploratory Factor Analysis.

Table 2 Exploratory Factor Analysis – Factor Loadings

Variables	Factor 1	Variables	Factor 1
HSP4	0.849	HSP1	0.797
HSP3	0.835	HSP6	0.794
HSP8	0.827	HSP7	0.783
HSP2	0.812	HSPA3	0.766
HSPA4	0.811	HSPA1	0.762
HSP5	0.806	HSPA5	0.727
HSPA2	0.804	HSP10	0.684
HSP9	0.799		

Source: Primary Data

Exploratory Factor Analysis was conducted using Principal Axis Factoring with Varimax rotation to identify the underlying factor structure of sustainability practices and sustainable product adoption variables. The analysis identified one dominant factor with an eigenvalue greater than 1, accounting for a substantial proportion of the total variance. All variables demonstrated strong factor loadings above the acceptable threshold of 0.40, ranging from 0.684 to 0.849. The results indicate that all items significantly contributed to a single underlying construct representing household sustainability orientation among respondents in Goa. Although Exploratory Factor Analysis identified a dominant sustainability orientation factor, sustainability practices and sustainable product adoption were analytically treated as distinct constructs based on conceptual differences and study objectives.

Variables Used in the Study

Independent Variable: Household Sustainability Practices (HSP)

Dependent Variable: Household Sustainable Product Adoption (HSPA)

Ethical considerations were maintained throughout the study. Participation in the survey was voluntary, and respondents were informed of the study's purpose. Confidentiality and anonymity of the respondents were ensured, and the collected information was used solely for academic purposes.

RESULTS

Table 3 Descriptive Statistics of Household Sustainability Practices and Sustainable Product Adoption

Variable	Mean	SD	Variable	Mean	SD
HSP1	3.82	1.44	HSP9	3.51	1.25
HSP2	3.72	1.32	HSP10	3.30	1.29
HSP3	3.61	1.26	HSPA1	3.80	1.39
HSP4	3.65	1.30	HSPA2	3.55	1.21
HSP5	3.58	1.28	HSPA3	3.66	1.28
HSP6	3.39	1.21	HSPA4	3.68	1.20
HSP7	3.53	1.28	HSPA5	3.57	1.26
HSP8	3.56	1.25			

Source: Primary Data

The descriptive statistics indicate moderate to high levels of sustainability practices and sustainable product adoption among respondents in Goa. The mean scores ranged from 3.30 to 3.82, reflecting positive sustainability-oriented household behavior. HSP1 recorded the highest mean score ($M = 3.82$), while HSP10 recorded the lowest mean score ($M = 3.30$). Among sustainable product adoption variables, HSPA1 showed the highest mean score ($M = 3.80$). Overall, the findings suggest that respondents demonstrate favorable attitudes toward sustainable household practices and products.

Table 4 Reliability Analysis of Household Sustainability Practices and Sustainable Product Adoption

Variable	Item-Rest Correlation	Cronbach's Alpha if Item Dropped
HSP1	0.770	0.946
HSP2	0.791	0.945
HSP3	0.828	0.943
HSP4	0.837	0.943
HSP5	0.805	0.944
HSP6	0.799	0.944
HSP7	0.769	0.945
HSP8	0.813	0.944
HSP9	0.791	0.945
HSP10	0.680	0.949

Source: Primary Data

The reliability analysis of the Home and Household Sustainability Practices scale yielded a Cronbach's Alpha of 0.950, indicating excellent internal consistency. The item-rest correlation values ranged from 0.680 to 0.837, which are above the acceptable threshold, suggesting that all items were positively correlated with the overall scale. Further, Cronbach's Alpha for the deleted item did not show a substantial improvement in the reliability coefficient, indicating that all items contributed meaningfully to the construct. Therefore, all ten items were retained for further analysis.

Table 5 Reliability Analysis of Sustainable Product Adoption

Variable	Item-Rest Correlation	Cronbach's Alpha if Item Dropped
HSPA1	0.791	0.899
HSPA2	0.831	0.891
HSPA3	0.771	0.903
HSPA4	0.813	0.895
HSPA5	0.743	0.908

Source: Primary Data

Table 6 Cronbach Alpha

Construct	Cronbach's Alpha
Sustainability Practices	0.950
Sustainable Product Adoption	0.918

Source: Primary Data

The reliability analysis of the Sustainable Product Adoption scale yielded a Cronbach's Alpha of 0.918, indicating excellent internal consistency. The item-rest correlation values ranged from 0.743 to 0.831, suggesting strong correlations between individual items and the overall construct. Additionally, the Cronbach's Alpha values after deleting the item did not indicate any substantial improvement in the reliability coefficient. Therefore, all five items were retained for further statistical analysis.

Table 7 Independent Samples t-Test Comparing Rural and Urban Respondents

Variables	Group	N	Mean	SD	t-value	p-value
HSP_Total	Rural	155	3.76	0.958	3.30	0.001
	Urban	155	3.37	1.14		
HSPA_Total	Rural	155	3.83	1.009	2.83	0.005
	Urban	155	3.48	1.16		

Source: Primary Data

An independent-samples t-test was conducted to compare rural and urban respondents on sustainability practices and sustainable product adoption. The findings revealed a statistically significant difference in Home and Household Sustainability Practices between rural and urban respondents ($t = 3.30$, $p = 0.001$). Rural respondents ($M = 3.76$, $SD = 0.958$) demonstrated higher sustainability practice scores compared to urban respondents ($M = 3.37$, $SD = 1.14$). Similarly, a significant difference in Sustainable Product Adoption was observed between rural and urban respondents ($t = 2.83$, $p = 0.005$). Rural respondents ($M = 3.83$, $SD = 1.009$) reported higher adoption of sustainable household products than urban respondents ($M = 3.48$, $SD = 1.16$). The results indicate that rural households in Goa exhibit comparatively stronger sustainable household practices and product adoption behavior than urban households.

H1: There is a significant difference in household sustainability practices between rural and urban households in Goa. - Accepted

H2: There is a significant difference in sustainable household product adoption between rural and urban households in Goa. - Accepted

Table 8 Correlation Between Sustainability Practices and Sustainable Product Adoption

Variables	HSP_Total	HSPA_Total
HSP_Total	—	0.805***
HSPA_Total	0.805***	—

Source: Primary Data

Pearson's correlation analysis was conducted to examine the relationships among Home and Household Sustainability Practices, Sustainable Product Adoption, and respondents in Goa. The results revealed a strong positive correlation between the two variables ($r = 0.805$, $p < 0.001$). This indicates that respondents with higher sustainability practices also demonstrated higher adoption of sustainable household products. The relationship was statistically significant, suggesting a strong association between sustainable household behavior and sustainable product usage.

H3: There is a significant relationship between household sustainability practices and sustainable product adoption in Goa. -Accepted

Table 9 Regression Analysis: Impact of Sustainability Practices on Sustainable Product Adoption

Predictor	Estimate	SE	t-value	p-value	Standardized Beta
Constant	0.706	0.129	5.46	<0.001	—
HSP_Total	0.826	0.035	23.79	<0.001	0.805

Source: Primary Data

Model Summary

R	R ²	F	p-value
0.805	0.648	566.277	<0.001

Source: Primary Data

A linear regression analysis was conducted to examine the impact of Home and Household Sustainability Practices on Sustainable Product Adoption among respondents in Goa. The regression model was statistically significant ($F = 566.277$, $p < 0.001$), indicating that sustainability practices significantly predict sustainable product adoption. The coefficient of determination ($R^2 = 0.648$) revealed that approximately 64.8% of the variation in sustainable product adoption was explained by sustainability practices. Further, the standardized beta coefficient ($\beta = 0.805$, $p < 0.001$) indicated a strong positive association between sustainability practices and sustainable product adoption. The findings suggest that respondents who actively engage in sustainable household practices are more likely to adopt sustainable household products.

H4: Household sustainability practices significantly influence households' adoption of sustainable products in Goa. -Accepted

FINDINGS

- The descriptive statistics revealed moderate to high levels of sustainability practices and sustainable product adoption among households in Goa.
- The analysis showed that rural respondents had comparatively higher sustainability practices than urban respondents.
- Rural households also reported higher adoption of sustainable household products than urban households.
- Correlation analysis revealed a strong positive relationship between sustainability practices and sustainable product adoption ($r = 0.805$, $p < 0.001$).
- Regression analysis indicated that sustainability practices significantly influence sustainable product adoption among households in Goa.
- The regression model explained 64.8% of the variance in sustainable product adoption, indicating strong predictive power.
- Reliability analysis confirmed excellent internal consistency of the measurement scales, with Cronbach's Alpha values of 0.950 for sustainability practices and 0.918 for sustainable product adoption.
- Exploratory Factor Analysis confirmed that all variables loaded strongly onto a single dominant factor representing household sustainability orientation.

DISCUSSION

The study found moderate to high levels of sustainability-oriented behavior among households in North Goa. The descriptive analysis indicated that respondents demonstrated positive attitudes toward sustainable household practices, including energy conservation, water management, reuse behavior, and responsible waste disposal. The findings are consistent with studies by Peattie, K. (2010) and Stern, P. C. (2000), which emphasize the growing importance of environmentally responsible household behavior in promoting sustainability.

The independent-samples t-test revealed significant differences between rural and urban households in sustainability practices and sustainable product adoption. Rural respondents reported higher sustainability scores compared to urban respondents. The comparatively higher sustainability scores among rural households may be associated with lifestyle patterns that naturally encourage resource conservation and reuse-oriented behavior. Rural respondents demonstrated relatively stronger engagement in practices such as energy conservation, water management, reuse of household items, and environmentally responsible waste disposal. In contrast, urban households showed greater variation in sustainability behavior, suggesting less consistent adoption of sustainable household practices. These findings support previous research suggesting that rural households often follow naturally sustainable lifestyles characterized by reuse practices, conservation-oriented behavior, and lower levels of resource-intensive consumption. The findings are also consistent with studies highlighting the role of traditional lifestyle practices in promoting environmental sustainability.

The study further identified a strong positive relationship between sustainability practices and the adoption of sustainable products. The correlation analysis revealed that respondents engaging in environmentally responsible household behavior were more likely to adopt sustainable household products. This finding is consistent with studies by Joshi, Y., & Rahman, Z. (2015), Paul, J., Modi, A., & Patel, J. (2016), which reported that environmentally conscious consumers exhibit stronger green purchasing behavior.

Regression analysis indicated that sustainability practices significantly influence sustainable product adoption among households in Goa. The regression model explained a substantial proportion of variation in sustainable product adoption behavior, indicating that sustainable household practices play an important role in shaping environmentally responsible consumption decisions. This finding supports the theoretical assumptions of the Theory of Planned Behavior proposed by Ajzen, which suggests that behavioral orientation significantly influences consumer decision-making patterns.

Further, Exploratory Factor Analysis revealed that all variables loaded strongly onto a single dominant factor representing household sustainability orientation. This suggests that sustainability practices and the adoption of sustainable products are closely interconnected dimensions of environmentally responsible household behavior.

CONCLUSION

The study concludes that households in Goa are increasingly adopting sustainable household practices and sustainable products. The findings indicate that sustainability-oriented behavior is more prevalent among rural households than among urban households. Practices such as conserving water, reusing household items, properly disposing of waste, and adopting environmentally friendly products are increasingly part of household lifestyles. The study further establishes a strong relationship between sustainability practices and the adoption of sustainable products, suggesting that environmentally conscious households are more likely to adopt eco-friendly household products. The statistical analyses confirmed the reliability and validity of the research instrument and demonstrated that sustainability practices significantly influence product adoption behavior. Overall, the study highlights the growing awareness and importance of sustainability in households in Goa and emphasizes the need to continue promoting environmentally responsible behavior.

Limitations of the Study

The study is primarily based on self-reported questionnaire responses, which may be subject to response bias and to respondents' subjective interpretations. The study was limited to selected rural and urban households in North Goa and therefore may not fully represent the sustainability behavior of all households in Goa. Additionally, stratified convenience sampling may limit the generalizability of the findings.

Suggestions

- Awareness programs on sustainable household practices should be strengthened, particularly in the urban areas of Goa.
- Government agencies and local municipalities should encourage waste segregation, composting, and environmentally responsible disposal practices through incentives and educational campaigns.

- Sustainable household products such as biodegradable cleaning agents, reusable containers, and energy-efficient appliances should be made more affordable and accessible to consumers.
- Educational institutions and community organizations should conduct sustainability workshops and campaigns to promote environmentally responsible lifestyles.
- Policy makers should introduce supportive initiatives encouraging households to adopt renewable energy, water conservation methods, and eco-friendly consumption patterns.
- Local self-government bodies may collaborate with NGOs and environmental groups to enhance public participation in sustainability initiatives.

ACKNOWLEDGEMENT

The author expresses sincere gratitude to the students who assisted in collecting primary data for the study. Their support and cooperation during the survey process were extremely valuable for the successful completion of the research.

REFERENCES

1. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
2. Al-Swidi, A., & Saleh, R. M. (2021). How green our future would be? An investigation of the determinants of green purchasing behavior of young citizens in a developing country. *Environment, Development and Sustainability*, 23(9), 13436–13468. <https://doi.org/10.1007/s10668-020-01220-z>
3. Amoako, G. K., Dzogbenuku, R. K., & Abubakari, A. (2020). Do green knowledge and attitude influence the youth's green purchasing? Theory of planned behavior. *International Journal of Productivity and Performance Management*, 69(8), 1609–1626. <https://doi.org/10.1108/IJPPM-12-2019-0595>
4. Arora, C. (2022). Determinants of green consumption behaviour: Empirical evidence from India. *Applied Ecology and Environmental Sciences*, 10(7), 472–487. <https://doi.org/10.12691/aees-10-7-6>
5. Barr, S., & Gilg, A. (2006). Sustainable lifestyles: Framing environmental action in and around the home. *Geoforum*, 37(6), 906–920. <https://doi.org/10.1016/j.geoforum.2006.05.002>
6. Biswas, A., & Roy, M. (2015). Leveraging factors for sustained green consumption behavior based on consumption value perceptions: Testing the structural model. *Journal of Cleaner Production*, 95, 332–340. <https://doi.org/10.1016/j.jclepro.2015.02.042>
7. Dangelico, R. M., Nonino, F., & Pompei, A. (2021). Which are the determinants of green purchase behaviour? A study of Italian consumers. *Business Strategy and the Environment*, 30(5), 2600–2620. <https://doi.org/10.1002/bse.2766>
8. Desai, V. (2024). A study of consumers' purchasing behavior towards green products in India. *Sachetas*, 3(1), 45–58. <https://doi.org/10.55955/3006>
9. Do Paço, A., Shiel, C., & Alves, H. (2019). A new model for testing green consumer behaviour. *Journal of Cleaner Production*, 207, 998–1006. <https://doi.org/10.1016/j.jclepro.2018.10.105>
10. Ertz, M., Karakas, F., & Sarigöllü, E. (2016). Exploring pro-environmental behaviors of consumers: An analysis of contextual factors, attitude, and behaviors. *Journal of Business Research*, 69(10), 3971–3980. <https://doi.org/10.1016/j.jbusres.2016.06.010>
11. Francis, A., & Sarangi, G. K. (2022). Sustainable consumer behaviour of Indian millennials: An empirical study. *Cleaner and Responsible Consumption*, 5, 100085. <https://doi.org/10.1016/j.clrc.2022.100085>
12. Jain, V. K., Gupta, A., Verma, H., & Anand, V. P. (2023). Embracing green consumerism: Revisiting the antecedents of green purchase intention for millennials. *International Journal of Sustainable Agricultural Management and Informatics*, 9(2), 145–162. <https://doi.org/10.1504/IJSAMI.2023.10056321>
13. Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, 3(1–2), 128–143. <https://doi.org/10.1016/j.ism.2015.04.001>

14. Kennedy, R. F., et al. (2024). Green consumption and sustainable lifestyle: Evidence from consumer sustainability behaviour. *Administrative Sciences*, 14(10), 262–281. <https://doi.org/10.3390/admsci14100262>
15. Khare, A. (2015). Influences and consequences of green purchase behavior: A study of Indian consumers. *Marketing Intelligence & Planning*, 33(3), 309–329. <https://doi.org/10.1108/MIP-09-2013-0141>
16. Narassima, M. S., Mohanavelu, T., McDermott, O., Harsshany, G., Shruthi, S. V., & Suraj, T. (2025). Coupling responsible consumption and sustainable production using consumers' green purchase behaviour. *Cleaner and Responsible Consumption*, 16, 100291. <https://doi.org/10.1016/j.clrc.2025.100291>
17. Ottman, J. A. (2011). *The new rules of green marketing: Strategies, tools, and inspiration for sustainable branding*. Berrett-Koehler Publishers. <https://doi.org/10.4324/9781351278680>
18. Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of Retailing and Consumer Services*, 29, 123–134. <https://doi.org/10.1016/j.jretconser.2015.11.006>
19. Peattie, K. (2010). Green consumption: Behavior and norms. *Annual Review of Environment and Resources*, 35(1), 195–228. <https://doi.org/10.1146/annurev-environ-032609-094328>
20. Saxena, R., & Khandelwal, P. K. (2010). Can green marketing be used as a tool for sustainable growth? A study performed on consumers in India. *The International Journal of Environmental, Cultural, Economic and Social Sustainability*, 6(2), 277–291. <https://doi.org/10.18848/1832-2077/CGP/v06i02/54713>
21. Sharma, K., Gupta, S., & Jain, R. (2023). Factors affecting green purchase behavior: A systematic literature review. *Business Strategy and the Environment*, 32(7), 3630–3653. <https://doi.org/10.1002/bse.3237>
22. Singh, D. P. (2011). Green consumerism in India: Emerging opportunities and challenges. *Global Business Review*, 12(3), 447–457. <https://doi.org/10.1177/097215091101200308>
23. Sinha, R., & Verma, P. (2022). The antecedents of green purchase behaviour of Indian households. *Journal of Cleaner Production*, 350, 131507. <https://doi.org/10.1016/j.jclepro.2022.131507>
24. Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407–424. <https://doi.org/10.1111/0022-4537.00175>
25. Upadhyaya, A. S. (2024). Customers' purchase intention of green cosmetics in India. *Indian Journal of Marketing*, 54(2), 35–49. <https://doi.org/10.17010/ijom/2024/v54/i2/174187>
26. Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, 64(3), 542–553. <https://doi.org/10.1016/j.ecolecon.2007.03.007>
27. Yadav, R., & Pathak, G. S. (2017). Determinants of consumers' green purchase behavior in a developing nation: Applying and extending the theory of planned behavior. *Ecological Economics*, 134, 114–122. <https://doi.org/10.1016/j.ecolecon.2016.12.019>