Green Choices: Unveiling the Socio-Economic and Demographic Drivers of Sustainable Consumerism in Kerala

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Abstract: *Green consumerism, which emerged from increased consumer awareness about the importance of safe and eco-friendly products, underscores the global shift from environmentally harmful practices towards sustainable consumption, driven by a societal demand for greener alternatives. This study examines the extent to which individuals prioritize environmental protection, exploring their perceptions of green products, the obstacles to their consumption, and recommending strategies to promote green products within society. Statistical analysis was conducted with the data collected from among the rural consumers residing in Alappuzha district, Kerala drawn through stratified random sampling procedure. The study reveals that women and younger individuals are more likely to be green consumers, with education significantly influencing the use of green products. Contrary to theoretical assumptions, higher income levels do not correlate with green consumption; instead, social and psychological factors play a crucial role, and people with secure jobs are more inclined towards green products. While education has a positive impact on green consumption, the data shows no significant difference between users and non-users regarding perceived health benefits and eco-friendliness, though other aspects differ.*

Key Words: *Green Consumerism, eco-friendly products, consumer preferences, green alternatives*

I. INTRODUCTION

Green consumerism is the continuation of global consumerism action that started with consumer awareness about their rights to get proper product, safe, and eco-friendly product. Consumer awareness of eco-friendly product become a suitable issue to be lifted remembering that stuff is important for future human sustainability (Dono et al., 2010). Since the conclusion of the Second World War, the frantic pursuit of industrialization and increased profits has caused humanity to turn a blind eye to the pleas of Mother Earth, resulting in severe and irreversible harm to the natural environment. Global consumers recognized the need for a shift from the traditional environmentally hazardous life style to a greener one. This resulted in rampant changes in the demand pattern in the direction of eco-friendly alternatives. The gentle breeze of green consumerism is sweeping across the world. Green consumption is an important part of green consumerism. It is a form of consumption that is compatible with the safeguard of the environment for the present and for the next generations. Green Consumerism ascribes to consumers responsibility or co-responsibility for addressing environmental problems through adoption of environmentally friendly behaviours, such as the use of organic products, clean and renewable energy and the search for goods produced by companies with minimal carbon foot print. Consumer awareness of eco-friendly product is vital taking into consideration the long run goal of sustainability.

With the increasing environmental cognizance among customers, the demand and search for greener alternatives is increasing. The era of sustainable development and socially responsible product and services has come; there is an increasing social pressure on business firms to not blindly bandwagon the profitability goal alone but also to protect and preserve our environment. Thirst of the society for green products is the prime motive behind the green business initiatives. The present study explores how much the individuals in the study area are inclined to environmental protection goals by analysing their perception about green products, hindrances in the consumption of green products and suggest measures for popularizing green products in the society.

II. LITERATURE REVIEW

The concept of green consumerism is not a new concept, it was introduced in late 20th century, but it is becoming more and more vital in today's era and vibrant researches are being conducted across the globe. The world has experienced several environmental problems, which create the adverse effect to the environment with regard to the depletion of natural resources, damage to the ozone layer and loss of agricultural land. In line with the above fact, Mainieri et. al., (1997) jointly examined the influence of environmental concern on consumer behaviour among general people in the Los Angeles area of the United States of America. The Study surveys householders in middle-class urban communities, on the assumption that these consumers are most likely to be aware of the importance of environmental issues and to consider them in their household purchasing decisions. Findings remark that the middle-class urban respondents in the study are fairly high in their general pro-environment attitudes, lower in beliefs about their environmental responsibility as consumers, and lowest in their reported green-buying behaviours.

Aman et. al., (2012) investigate the influence of environmental knowledge and concern on green purchase intention among consumers in Malaysia, and simultaneously examining the effect of attitude as a mediator. Findings expose that green purchase intention among consumers is influenced by environmental knowledge and environmental concern significantly. Sharma & Iyer(2012) opined that in recent years, consumers tend to pay more attention to the products that are environmentally and socially responsible as there are becoming educated and have a wide exposure to environmentally friendly products. Singh N. (2009) explored the socially responsible behaviour of Indian consumers by using various demographic variables (age, income, gender, education and place of living) and tried to find out the relationship between demographics and socially responsible behaviour. The results confirmed that young Indian consumers are showing great concern for sustainable growth and females interestingly represent most positive socially responsible behaviour than their male counterparts and interestingly consumers with lower-income show more socially responsible behaviour than high-income respondents.

Vishnu Nath *et.al* (2012) highlighted the fact that the level of environmental awareness among the Indian consumers in small towns is appreciable and consumers are also aware of green products available in the markets. However, certain barriers are also listed by the consumers which must be tackled by the marketers in order to increase the penetration of green products in the market. Low functional performance of green products, lack of availability of green products, lack of support services for green products, difficulty of integration in normal routine, high price as compared to conventional non green products are the major hindrances faced by Indian consumers in green product adoption. Sujith T. S.(2017) found that majority of the respondents knew about the eco-friendly products with the most familiar being organic vegetables and consumable items. Customers' commitment on environment friendly products is positive and hopeful. They are ready to prefer eco-friendly products than non-eco-friendly products. But at the same time if the products are priced high customers shows a neutral attitude towards this showing a perception-action gap in purchase of Green products.

Relationship between socio – economic characteristics and socially responsible behaviour

A person's attitude towards green products is guided by several factors,the most prominent ones among them being; (i) Eco literacy, (ii) Interpersonal influence, (iii) Value orientation. Way back in 1991, the Government of India recognized the need for increased consumer awareness on eco-friendly (or green) products and launched the eco-labelling scheme known as `Ecomark'. The aim was to have a mechanism for easy identification of environment-friendly products. Since then,several eco-labels were introduced in the country to improve consumer choices by disseminating proper information.

Kerala is widely recognized as a consumerist state. The unique pattern of development that the state has undergonemade a rampant shift from agriculture to service sector directly skipping industrial development. Commodity producing sectors in Kerala has dwindled to such a level that Keralites are now primarily relying on others states for meeting its consumption requirements. It resulted in bulk transit of goods, especially food grains and vegetables, across the borders into the state. One striking feature in this regard is that most of these goods are of environmentally sub-standard quality. This is evident from the rising incidences of various potentially harmful diseases including Cancer.

Inorder to preserve environmental quality and uplift the health standards of the population, a marked shift towards green consumption is vital. Now-a-days increasing number of Keralites is being devoted to usage of green products, especially organic vegetables and food items. If the entire population shifts to such an organic consumption pattern, health standards can be improved greatly and the extent of plastic pollution used in packaging can be reduced to a great extent. Green products especially organic food, natural dyes, natural textiles, bio-fertilizers and pesticides, herbal cosmetics etc. have great potential if exploited properly ingenerating employment within the state and thereby solve the problem of unemployment. Green consumption will definitely help the state to make giant leaps along the path of sustainable development.

III. METHODOLOGY

The study area is the rural householdsresiding in Alappuzha district in the state of Kerala. For detailed investigation, a sample of 50 customers above 20 years whose names appear in the electoral roll was drawn through a stratified random sampling procedure.Samples were divided into 5 strata on the basis of age and 10 units are taken from each stratum on the basis of simple random sampling technique. The tabulated data were subjected to analysis with the help of various statistical and mathematical tools to derive meaningful inferences. The major tools used in the study are ANOVA, Chi-square test, Students t test.

FINDINGS
(i) Demographic and socialdeterminants of green consumption
Table1.Demographic and socio economic characteristics of respondents in the study area

Characteristics	Frequency		Percentage	
	Green Consumers	Non-Users	Green Consumers	Non-Users
(a) Sex				
Male	17	7	34	14
Female	24	2	48	4
Total	**41**	**9**	**82**	**18**
(b) Age				
21-30	9	1	18	2
31-40	10	0	20	0
41-50	8	2	16	4
51-60	7	3	14	6
Above 60	7	3	14	6
Total	**41**	**9**	**82**	**18**
(c) Educational Qualification				
Secondary	2	3	4	6
Higher Secondary	3	2	6	4
Diploma	5	1	10	2
Graduation	24	1	48	2
Post-graduation or above	7	0	14	0
Total	**41**	**9**	**82**	**18**
(d) Income category				
Less than 30,000	21	7	42	14
30,000-60,000	19	1	38	2
Above 60,000	1	1	2	2
Total	**41**	**9**	**82**	**18**
(e) Employment status				
Casual worker	6	2	12	4
Self employed	11	3	22	6
Government or superannuated employee	20	3	40	6
Others	4	1	8	2
Total	**41**	**9**	**82**	**18**

Out of the many aspects that can influence a customer's decision-making behaviour, one of the major factors is gender. Men and women approach shopping with different motives, perspectives, rationales, and considerations. Usually women make decisions on a more emotional level, whereas men approach decision-making with facts and data. Out of the total 50 respondents, 41 individuals(82%) are users of green products(green consumers) and 9 individuals(18%) are conventional non-green consumers.Out of the total, 24 are males and 26 are female. Among the male respondents, 17 are green product users and 7 are non-users. Out of the 26 female respondents, 24 are green product users and 2 are non-users. The green consumers among women (92%) are rather high against their male counterpart (71%).

Age is an important demographic factor that affects consumer behaviour.As people grow, their need also changes. Similar changes come to their buying decision making patterns. From the study it was revealed that approximately two-third of the green consumers are of below 50 years age which is an indication of young generation have an inclination towards green products.

Education seems to be one of the most powerful tools to support consumers in making the right and more responsible choices while meeting their needs and aspirations. Out of the total green consumers, the largest share is graduates (48%) and post-graduates or above (14%).Jointly, they constitute 62% of the total

green consumers.It hints at the fact that level of education has an important bearing on the usage of green products. With increasing levels of education, people are more motivated to the use of green products.

Income is a major determinant of consumption according to economic theory. In contradiction to this, the data gathered does not reveal any such correlation between increasing level of income and usage of green products. It canthus conclude that it is not only the income but other factors, social and psychological behaviour of the consumers that determine the decision for green consumption. Nature of employment has significant effects on the income and also on the individual consumption expenditure.Out of the total green consumers, the largest group is of Government employees(fixed income people with secure jobs) and superannuated employees with a fixed income (40%). Second comes self-employed with an irregular income flow but with job security (22%). People with secured jobs prefer green products than others.

(ii) Influence of Socio-demographic factors on green consumption
According to the relevant literature review's discussion, inference and definitions, and assumptions of each facet of the association through the literature's relevant empirical proof, this study develops a specific research hypothesis as follows:
H1:Gender has no significant impact on green consumption
H2: Age has no significant impact on green consumption
H3:Education has no significant impact on green consumption
H4: Income has no significant impact on green consumption

For testing whether there is significant difference between users of different genders in using green products, the chi-square test is used as statistical tool.For testing whether age has a significant impact on green consumerism, the respondents were classified to different age groups as 21-30,31-40,41-50,51-60 and above 60and used students *t* test the hypothesis. For testing whether there is significant difference between users of different educational qualification in using green products, the green product users were classified into three broad groups aswith qualified Higher Secondary or below,Diploma/Graduation and Post-graduation or above. To test whether there is significant difference between the users of different income levels in consuming green products, the green product users were categorized into three broad groups as income having less thanRs.30,000/-, between Rs.30,000/--Rs.60,000/-and above Rs.60,000/-. In both cases, the test adopted wasthe chi-square test.

Table2. Result of Statistical Tests on
Influence of Socio-demographic factors on green consumption

Null Hypothesis	Value of Test statistic	Sig.level	Critical value	Decision	Interpretation
There is no significant difference between the genders in consuming green products	Chi square =3.8991	0.05	3.841	Reject the null hypothesis	There is significant difference between the genders in consuming green products.
There is no significant difference between mean ages of users and non-users of green products	Students t statistic= -2.2786	0.05	1.782	Reject the null hypothesis	The Mean age of users of green products is less than age of non-users.
There is no significant difference between people of different educational levels in using green products	Chi square =12.914	0.05	5.991	Reject the null hypothesis	Education has a positive impact on green consumption
There is no significant relationship between green product buying intention and income group of the respondents	Chi square =4.607	0.05	5.991	Accept the null hypothesis	Income has no impact on green consumption

(iii)   Level of awareness as guiding factor forconsumer preference towards green products
In this section, an analysis was made to check whether there is any significant difference between various aspects regarding awareness on green products like health benefits,eco-friendliness etc. and also between users and non-users within each aspect. A summary of the result is given Table 3.

Table 3. Categorization of respondents on the basis of awareness level of different aspects of green products

Aspects	Awareness level of Green product users			Awareness level of non-users		
	High	**Medium**	**Low**	**High**	**Medium**	**Low**
Health Benefits	**34**	7	0	0	6	3
Eco-friendliness	**25**	16	0	0	3	6
Green brands	7	**31**	3	0	2	7
Shops selling green products	18	**23**	0	0	5	4
Production process	5	**30**	6	0	1	8

Using Likert scale ranks were assigned in such a way that level of awareness 'high' is given 3 points, 'medium' is given 2 points and 'low' is given 1 point. Aggregate points for each aspect for users and non-users are presented in the below given table:

Aspects	Users	Non-users
Health Benefits	116	15
Eco-friendliness	107	12
Green brands	86	11
Shops selling green products	100	14
Production process	81	10

The hypotheses tested were
H5:The different levels of awareness has no impact on green consumption
H6:Level of awareness among users and non-users of green products are equal.

Two-way ANOVA to test the hypotheses was conducted are the results are given in the table below.

Table4. Result of Statistical Tests onawareness level of different aspects of green products

Source of Variation	Sum of Squares	df	MS	F-value	P-value	F critical value
Rows	533.6	4	133.4	1.639	0.322	6.388
Column	18318.4	1	18318.4	225.042	0.00012	7.708
Error	325.6	4	81.4			

From the results, it is evident that there is no significant difference among users and non-users regarding various aspects such as health benefits, eco-friendliness etc. Also there is significant difference between users and non-users for various aspects.

(iv) Overcoming barriers: Challenges in embracing a green lifestyle
Based on the data collected from the respondents, the primary obstacles to adopting a greener lifestyle were identified as follows:
- The higher price of green products compared to non-green alternatives.
- Consumers' limited income often compels them to choose cheaper options despite their preference for green products.
- Limited variety of green products.
- Absence of reliable supply chains.
- Doubts regarding the quality of green products.
- Limited eco-labeling.
- Predominance of plastic packaging, contributing to plastic pollution.

The study indicates that a higher percentage of women can be identified as green consumers compared to men. It also reveals that about two-thirds of green consumers are less than 50 years old, suggesting that younger generations are more inclined towards green products. This trend points to the significant influence of education on the use of green products, with higher education levels correlating with greater motivation to use them. Contrary to economic theory, which posits income as a major determinant of consumption, the data does not show any relation between higher income levels and the use of green products. Therefore, factors beyond income, such as social and psychological behaviours, play a crucial role in the decision to consume green products. Additionally, people with secure jobs are more likely to prefer green products. There is a notable gender difference in green consumption, with the mean age of green product users being lower than that of non-users. The results do not show significant difference between users and non-users regarding health benefits and eco-friendliness, although other aspects differ.

IV. CONCLUSION

For increasing awareness on green products, the study suggestseco-labelling system and other measures for ensuring quality standards, increased availability of green products by strengthening supply chains and lowering the prices of green products via innovative production techniques. Green, a symbol of life, good health, and vigour, is also a colour that reminds us of hope. All around the globe, the word is associated with energy conservation and environmental protectionsuch as consumer attitude for 3Rs-Reduce, Reuse, Recycle, preference for minimal or little packaging, waste disposal with minimal impact on environment etc. Further researches can be done to include these wider aspects.

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