A Study On Consumer Buying Behavior Of Eco Friendly Products In Kanyakumari District

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Abstract
The main aim of the study is to study the consumers' perception on environmental concern relating to eco-friendly products and the attitude towards eco-friendly products. The study covered only consumers who are buying/using eco-friendly products in Kanyakumari district of Tamil Nadu state. The data collection method based on the sources including primary sources of data and secondary sources of data.
The present research is mainly based on primary data only, because the researcher collected the data for his own purpose and because the thesis is based on specific research hypotheses. The sampling units in this study are consumers who are buying/using eco-friendly products in Kanyakumari district of Tamil Nadu state. The sampling procedure adopted in the study is convenient sampling, a non-probability sampling method. 150 sample respondents were selected for the study. It is found that important to me that the products purchase and use do not harm the environment is the important perception on environmental concern relating to eco-friendly products and occupies the first rank and purchase habits are affected by concern for our environment is the next important perception on environmental concern relating to eco-friendly products and occupies the second rank. The study suggests the manufacturers and marketers could reduce the environmental impact associated with the consumption of a product by changing the source of materials, monitoring the carbon footprint, minimizing packaging, providing recycling options for product disposal.

Key Words: Eco-friendly products, Environmental Concern, Perception and Attitude

INTRODUCTION
Over the past few decades, the buying behaviour of the consumers in India had a direct impact on environment. It could also be said that consumers are choosing the products or avoiding others based on their impacts on the natural environment. As a result, the number of consumers who are buying and using the eco-friendly products are increasing day-by-day, and the manufacturers/marketing personnel focus their attention more towards the environment-friendly or green segment of the population.

STATEMENT OF THE PROBLEM
At present environmental or ecological issues are the major concerns for any country. Pollution, Greenhouse effects and ecological imbalances are some of the major environmental issues that have incurred along with the activities of human being. India, the fastest developing countries in the world, has been facing many issues and challenges in ensuring and maintaining a balance between development and environmental sustainability. Any remedy to preserve the resources of the planet needs not only a radical rethinking and action of the government and business organisation, but also the immediate attitude change in the buying behaviour of consumers in order to contribute to the sustainable and diminished use of nature resources.

OBJECTIVES OF THE STUDY
✓ To study the consumers' perception on environmental concern relating to eco-friendly products
✓ To identify the attitude towards eco-friendly products

METHODOLOGY

In order to use the survey method proficiently, a structured questionnaire is developed. A Questionnaire is considered as a research-instrument that includes a set of structured questions and explains the purpose of collecting data or information from the participants/consumers. The study covered only consumers who are buying/using eco-friendly products in Kanyakumari district of Tamil Nadu state. The data collection method based on the sources including primary sources of data and secondary sources of data. Primary data is collected for a specific study and the data that researcher collect first and is tailor-made to fit the purpose of the research. Secondary data is data collected by other researchers with other purpose than for the current problem and purpose, which is good to use when the researcher wants to gain deeper knowledge about a subject. The present research is mainly based on primary data only, because the researcher collected the data for his own purpose and because the thesis is based on specific research hypotheses.

SAMPLING DESIGN

Since, it is difficult to conduct a complete enumeration of all items from the population or universe (consumers who are buying using eco-friendly products in Kanyakumari district), the researcher selects only a few persons from population for the research purpose. The sampling units in this study are consumers who are buying/using eco-friendly products in Kanyakumari district of Tamil Nadu state. The sampling procedure adopted in the study is convenient sampling, a non-probability sampling method. 150 sample respondents were selected for the study.

HYPOTHESES

The following hypotheses were framed for the study.

Null Hypothesis (H_0) : "There is no significant association between the gender group of the sample consumer and attitude towards eco-friendly products".

Null Hypothesis (H_0) : There is no significant difference between the occupation of sample consumer and satisfaction level towards eco-friendly products.

ANALYSIS AND INTERPRETATION

Perception on Environmental Concern relating to Eco-friendly Products

The perception on environmental concern relating to eco-friendly products are ranked by finding the weighted average of each aspect and are tabulated in Table 1.

Table 1 Perception on Environmental Concern relating to Eco-friendly Products

Sl. No	Environmental Concern relating to Eco-friendly Products	Mean Score	SD	Rank
1.	It is important to me that the products I purchase and use do not harm the environment	3.8825	1.40	I
2.	My purchase habits are affected by my concern for our environment	3.8651	1.32	II
3.	I purchase products that do not waste resources in their packaging	3.7746	1.42	III
4.	Choosing a product, I prioritize the environmental aspects rather than the price/quality	3.4238	1.45	IV

Source: Computed data

Table 1 highlights the mean and standard deviation of the sample consumer with regard to the perception on environmental concern relating to eco-friendly products. It is important to me that the products I purchase and use do not harm the environment is the important perception on environmental concern relating to eco-friendly products and occupies the first rank with the mean score of 3.8825, purchase habits are affected by my concern for our environment is the next important perception on environmental concern relating to eco-friendly products and occupies the second rank with the mean score of 3.8651, purchase products that do not waste resources in their packaging is the third important perception on environmental concern relating to eco-friendly products and occupies the third rank with the mean score of 3.7746 and choosing a product, I prioritize the environmental aspects rather than the price/quality is the last perception on environmental concern relating to eco-friendly products and occupies the last rank with the mean score of 3.4238.

Association between gender group of the sample consumer and Attitude towards eco-friendly products

To find out the association between gender group of the sample consumer and attitude towards eco-friendly products, analysis has been made with the following null hypothesis.

Null Hypothesis (H_0) : "There is no significant association between the gender group of the sample consumer and attitude towards eco-friendly products".

To test the above null hypothesis, one way ANOVA test has been used and the result is presented in the following table.

Table 2 One Way ANOVA for Attitude towards eco-friendly products based on Gender group of Consumer

Factors	Gender group	Sum of Squares	df	Mean Square	F	Sig.
Environment Safety and Social Conscious Factor	Between Groups	455.933	2	227.967	3.881	.021
	Within Groups	36827.561	147	58.736		
	Total	37283.494	149			
Benefits and Certified Factor	Between Groups	91.771	2	45.885	1.358	.258
	Within Groups	21181.227	147	33.782		
	Total	21272.998	149			
Nutritious and Taste Factor	Between Groups	36.444	2	18.222	.580	.560
	Within Groups	19637.620	147	31.420		
	Total	19674.064	149			
Fresh and Pesticide residues Factor	Between Groups	103.969	2	51.985	2.093	.124
	Within Groups	15569.586	147	24.832		
	Total	15673.556	149			
Environment Conscious and Privileges Factor	Between Groups	376.008	2	188.004	6.338	.002
	Within Groups	18597.363	147	29.661		
	Total	18973.371	149			
Fashion and Health Benefits Factor	Between Groups	102.607	2	51.303	2.726	.066
	Within Groups	11800.720	147	18.821		
	Total	11903.327	149			

Source: Computed Data

The ANOVA test shows that there is a statistically significant relationship between gender group of the consumer and attitude towards eco-friendly products namely environment safety and social conscious factor. Therefore, **H$_0$ is rejected** (p-value 0.021 < 0.05) at 5% level of significance. That is the sample consumer differ significantly in the attitude towards eco-friendly products namely environment safety and social conscious factor when they are classified based on their gender group. Hence it is inferred that the attitude towards eco-friendly products namely environment safety and social conscious factor is differ among the different gender group of the consumer in the study area. It is suggested that the eco-friendly products shops may concentrate on environment safety and social conscious factor while providing the eco-friendly products to the different gender group of the consumer.

The ANOVA test further shows that there is no statistically significant relationship between gender group of the consumer and attitude towards eco-friendly products namely benefits and certified factor. Therefore, **H$_0$ is accepted** (p-value 0.258 > 0.05) at 5% level of significance. Further it is found that the attitude towards eco-friendly products namely benefits and certified factor is not varied among different gender group of the consumer.

The ANOVA test further highlights that there is no statistically significant relationship between gender group of the consumer and attitude towards eco-friendly products namely nutritious and taste factor. Therefore, **H$_0$ is accepted** (p-value 0.560 > 0.05) at 5% level of significance. Further it is found that the attitude towards eco-friendly products namely nutritious and taste factor is not varied among different gender group of the consumer.

The ANOVA test further highlights that there is no statistically significant relationship between gender group of the consumer and attitude towards eco-friendly products namely fresh and pesticide residues factor. Therefore, **H$_0$ is accepted** (p-value 0.124 > 0.05) at 5% level of significance. Further it is found that the attitude towards eco-friendly products namely fresh and pesticide residues factor is not varied among different gender group of the consumer.

The ANOVA test shows that there is a statistically significant relationship between gender group of the consumer and attitude towards eco-friendly products namely environment conscious and privileges factor. Therefore, **H$_0$ is rejected** (p-value 0.002 < 0.05) at 5% level of significance. That is the sample consumer differ significantly in the attitude towards eco-friendly products namely environment conscious and privileges factor when they are classified based on their gender group. Hence it is inferred that the attitude towards eco-friendly products namely environment conscious and privileges factor is differ among the different gender group of the consumer in the study area. It is suggested that the eco-friendly products shops may concentrate on environment conscious and privileges factor while providing the eco-friendly products to the different gender group of the consumer.

The ANOVA test further reveals that there is no statistically significant relationship between gender group of the consumer and attitude towards eco-friendly products namely fashion and health benefits factor. Therefore, **H$_0$ is accepted** (p-value 0.124 > 0.05) at 5% level of significance. Further it is found that the attitude towards eco-friendly products namely fashion and health benefits factor is not varied among different gender group of the consumer.

Satisfaction level towards eco-friendly products based on Occupation of sample consumer
An attempt was made to know the satisfaction level of the sample consumer towards eco-friendly products namely overall satisfied with eco-friendly products, health problems has reduced after started using eco-friendly products, continue the purchase of eco-friendly products, recommend the eco-friendly products to friends/relatives and increase the consumption of eco-friendly products in future based on occupation of sample consumer. The occupation of the sample consumer was classified as Government employees, private employees, professional, business and others. To test the satisfaction level of the sample consumer towards eco-friendly products based on occupation of sample consumer, the following null hypothesis was proposed.
H$_0$: There is no significant difference between the occupation of sample consumer and satisfaction level towards eco-friendly products.

The non parametric statistics of Kruskal-Wallis test was used to analyze the satisfaction level of the sample consumer towards eco-friendly products based on occupation of sample consumer and test the proposed null hypothesis. The details of the result of Kruskal-Wallis test is reported in Table 3.

Table 3 Kruskal-Wallis Test: Satisfaction level towards eco-friendly products based on Occupation of sample consumer

Factors	Chi-Square χ^2	*p* value	Occupation [Mean ranks]				
			Govt. employee	Pvt. Employee	Professional	Business	Others
Overall satisfied with eco-friendly products	46.255	0.000	300.01	338.08	378.32	334.10	242.32
Health problems has reduced after started using eco-friendly products	50.068	0.000	284.49	346.08	378.61	334.90	238.87
Continue the purchase of eco-friendly products	46.208	0.000	299.90	327.98	384.88	349.10	244.90
Recommend the eco-friendly products to friends/relatives	34.998	0.000	319.76	334.04	370.71	318.21	249.81
Increase the consumption of eco-friendly products in future	26.348	0.000	321.86	317.77	382.15	296.63	271.28

**Significant at 0.05 level

A Kruskal-Wallis test was run to determine if there were differences in overall satisfied with eco-friendly products, health problems has reduced after started using eco-friendly products, continue the purchase of eco-friendly products, recommend the eco-friendly products to friends/relatives and increase the consumption of eco-friendly products in future score between occupation of the sample consumer.

The result of the table shows that there was statistically significantly different between the occupation of sample consumer and overall satisfied with eco-friendly products [$\chi^2 = 46.255$, $p =.000$, $< .05$], between the occupation of sample consumer and health problems has reduced after started using eco-friendly products [$\chi^2 = 50.068$, $p =.000$, $< .05$], between the occupation of sample consumer and continue the purchase of eco-friendly products [$\chi^2 = 46.208$, $p =.008$, $< .05$], between the occupation of sample consumer and recommend the eco-friendly products to friends/relatives [$\chi^2 = 34.998$, $p =.000$, $< .05$] and between the occupation of sample consumer and increase the consumption of eco-friendly products in future [$\chi^2 = 26.348$, $p =.000$, $< .05$].

From a theoretical point of view, satisfaction level towards eco-friendly products wise data show that there was statistically significantly difference between the occupation of the sample consumer with regard to the overall satisfied with eco-friendly products, health problems has reduced after started using eco-friendly products, continue the purchase of eco-friendly products, recommend the eco-friendly products to friends/relatives and increase the consumption of eco-friendly products in future.

The proposed null hypothesis (H$_0$) was tested by the non parametric statistics of Kruskal-Wallis test. The significant level of confidence was fixed at .05. Using this significance level, it is possible to reach a decision with regard to whether to retain or accept the proposed null hypothesis. The decision made, based on this *p*-value, is presented in Table 4.

Table 4 Hypothesis (H$_0$) Test Summary for Satisfaction level towards eco-friendly products based on Occupation of sample consumer

Null Hypothesis	*p*-value	Decision
There is no significant difference between the occupation of sample consumer in the satisfaction level towards eco-friendly products	.000** (Overall satisfied with eco-friendly products)	Reject
	.000** (Health problems has reduced after started using eco-friendly products)	Reject
	.000** (Continue the purchase of eco-friendly products)	Reject
	.000** (Health problems has reduced after started using eco-friendly products)	Reject
	.000** (Health problems has reduced after started using eco-friendly products)	Reject

**Significant at 0.05 level

Table 4 discloses that the null hypothesis (H$_0$) is rejected at the 5% level of significance with regard to the overall satisfied with eco-friendly products, health problems has reduced after started using eco-friendly products, continue the purchase

of eco-friendly products, recommend the eco-friendly products to friends/relatives and increase the consumption of eco-friendly products in future due to the *p* value is less than 0.05.

SUGGESTIONS

✓ In any business organization, the demographic profile of the consumers (such as gender, marital status, etc.) are important determining factors of production and sales of the organization. Therefore, the manufacturers and marketers of eco-friendly products should focus more on these demographic segments while framing and implementing production and marketing policies relating to eco-friendly products

✓ The study suggests the manufacturers and marketers could reduce the environmental impact associated with the consumption of a product by changing the source of materials, monitoring the carbon footprint, minimizing packaging, providing recycling options for product disposal.

CONCLUSION

It is concluded that the products purchase and use do not harm the environment is the important perception on environmental concern relating to eco-friendly products and occupies the first rank and purchase habits are affected by concern for environment is the next important perception on environmental concern relating to eco-friendly products and occupies the second rank. The Government has also taken environmental concern very seriously and has come forward to educate consumers regarding the causes of environmental degradation. The Government along with other stakeholders should make consumers contribute towards saving environment by voluntarily participating in events stated by the organisations and encourage the consumers to buy and use more eco-friendly products for preserving the environment and the natural resources of the earth.

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