



## **Consumer perception towards eco-friendly FMCG products and its influence on their purchase decision: An empirical study**

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### **Abstract**

Today's world is witnessed by a drastic increase in the products that are either substitutes or complementary. The consumers are in a dilemma with regard to their purchase decision. The availability of the products is a boon to the economy, but are these products being utilized in a proper manner where in the environmental issues are taken into consideration. The resources that are available in the economy are less as compared to what is needed. Therefore a proper balance is to be kept between the utilization and its disposal. The producers may be concerned about their profit margin, still keeping the objectives the production could be effectively done without harming the environment. In recent days, environmental issues have received a great deal of discussion in the field of marketing. When the society becomes more concerned with the natural environment, businessmen have begun to modify their behavior to address the society's new concern. With the growing awareness about the implication of global warming, non-bio degradable solid waste, harmful impact of pollutants etc, both marketer and consumers are switching to eco-friendly products and many companies have accepted their responsibility not to harm the environment and not to waste the natural resources. This paper aims to understand the perception of consumers towards eco-friendly goods and its influence on their buying decision.

**Keywords:** environmental issues, consumer perception, eco-friendly products, consumer buying decision

### **Introduction**

Modern day is witnessed by the problem of effective disposal of waste, whether it is degradable or non-degradable. The effective utilization of waste after usage and reduction of the same has become a tremendous effort on the part of the industry as well as the nation. The degradable waste could be managed so effectively with much gain, as it can be broken down in a reasonable amount of time. In case of non-degradable waste, the management of the same should be done intelligently that the users and the environment are benefitted equally. The effort on this behalf is to recycle, reuse, reduce and be socially responsible. The awareness regarding this is to be created among the individual consumers so that the product which helps in the protection of environment will be produced and will create a better future for the offspring's. Fast Moving Consumer Goods sector is considerably one of the major sectors in the Indian market. These are products that are sold quickly, have relatively low cost and are required in the routine of the people. The companies move towards the production of such products so as to compete and be socially responsible. But lack of awareness regarding the products available may hinder the production of the same.

Consumer Perception can be defined as the way the consumers usually view or feel about a certain product or service. It can also be related to expected customer satisfaction of the consumer from a certain product or service.

There is a rapid growth of awareness among the consumers all over the world regarding the protection of environment in

which they live. People do want to bequeath a clean earth and environment to their offspring. Various studies indicate that people are concerned about the environment and are changing their behavior pattern so as to be less hostile towards it. Nowadays most of the consumers, both individual and industrial, are becoming more concerned about environment-friendly products and services.

Consumer choices reflect not only price and quality preferences but also social and moral values, as witnessed in the remarkable growth of the global market for organic and environmentally friendly products. In line with the corona associated with green consumerism, results showed that people act more altruistically after exposure to eco-friendly products than after mere exposure to conventional products. Environmentally friendly is a synonym used to refer to goods and services, laws, guidelines and policies considered to cause minimal or no harm on the environment. To make consumers aware, environmentally friendly goods and services often are marked with eco-labels. But because there is no single international standard for this concept, the International Organization for Standardization considers such labels too vague to be meaningful. Nobody wants to be seen as environmentally irresponsible. Over the years, companies have greatly expanded its range of environmentally friendly promotional products.

### **Review of Literature**

Mendleson N & Polonsky M J (1995): Asserts that strong willingness is shown by consumers to favour environmentally

conscious products and companies as per various opinion polls taken in US and elsewhere, however action to do so in reality are debatable.

Mintel (1995): In his study found a significant gap between consumers concern and actual green purchasing. In spite of huge interest in green marketing by researchers and organizations, demand for green products is not as high as expected.

Roberts (1996): Explains that environmentally conscious customers prefer to purchase green products because these products improve ecological activities and dilute the bad effects of other pollutants.

Mansaray and Abijoye (1998): In their study found that the quality of the environment depends on the level of knowledge, perception, attitudes, values and practices of consumers.

Gordon and Atkinson (2013): In their study have suggested that price would not be the only determinant in the marketing mix. It was currently unknown how the price points of eco-friendly products would affect consumer behavior and whether consumers who believed in the efficacy of eco-friendly products were willing to pay more for those products. Preeti Pillai & Dr. S.O. Junare (2016) – In their research paper are of the opinion that marketers need to understand the demographic profile of consumers using eco-friendly product consumers. They conclude stating that there a need for study of the factors influencing the perception of consumers in the purchase decision of eco-friendly products.

### Objectives of the Study

- To study the perception of the consumers towards the eco-friendly products
- To analyse the influence of consumer perception on their purchase decision of eco-friendly products

### Hypotheses

**H<sub>a1</sub>:** There is a significant difference of opinion among the respondents belonging to different gender on Consumer Perception of Eco-friendly products and Purchase Intention.

**H<sub>a2</sub>:** There is a significant difference of opinion among the respondents belonging to different age group on Consumer Perception of Eco-friendly products and Purchase Intention.

**H<sub>a3</sub>:** There is a significant difference of opinion among the respondents belonging to different educational qualification on Consumer Perception of Eco-friendly products and Purchase Intention.

**H<sub>a4</sub>:** There is a significant difference of opinion among the respondents spending on purchase of eco-friendly FMCG products on Consumer Perception of Eco-friendly products and Purchase Intention.

**H<sub>a5</sub>:** Consumers perception of eco-friendly products has a significant positive influence on Purchase intention of eco-friendly FMCG products

### Research Methodology

A research study was conducted in Bengaluru City selecting a

Sample of 80 consumers. Simple Random Sampling method was adopted in the selection of respondents. A questionnaire was designed in order to find out the perception of the consumers towards eco-friendly FMCG products. The secondary data for the review was collected from various journals and websites. The research design is both descriptive and analytical. The reliability of the data was verified by using Cronbach Alpha. The data was analyzed with the help of statistical tools like frequency table, Mean, Standard Deviation, Independent Sample t-test, ANOVA and Regression.

### Limitations

- The study is restricted to Bengaluru City and the results may not be applicable to other places
- The result obtained is based on the respondents' opinion and hence there is a chance of consumer bias

### Respondents Profile – Frequency

Table 1

		Count	Table N %
Gender	Male	42	52.5%
	Female	38	47.5%
Age of the respondents	Below 20 Years	10	12.5%
	21-30 Years	26	32.5%
	31-40 Years	30	37.5%
	More than 40 Years	14	17.5%
Educational Qualification	School Level	9	11.3%
	Diploma/Degree	27	33.8%
	Post-Graduation	36	45.0%
	Professional	8	10.0%
Monthly Expenditure on Eco-friendly Products	Less than 500	56	70.0%
	501-1000	7	8.8%
	1001-2000	7	8.8%
	more than 2000	10	12.5%

The above table refers to the demographic profile of the respondents. It was inferred from the table that; 52.5 percent of the respondents were male and the 47.5 percent of the respondents were female. With regard to the age of the respondents 37.5 Percent of the respondents were in the age group between 31-40 years followed by 32.5 percent in 21-30 years, 17.5 percent more than 40 years and 12.5 percent were in the age group less than 20 years of age. While looking into the classification of respondents based on the educational qualification, 45 percent of the respondents hold a Post-graduation degree whereas 33.8 percent have completed Diploma/degree, 11.3 percent had their school level graduation and 10 percent of the respondents have completed professional courses. With respect to the monthly expenditure on eco-friendly FMCG products, 70 percent of the respondents spend less than 500 rupees, 12.5 percent more than 2000 rupees and 8.8 percent spend 501-1000 rupees and 1001 to 200 rupees in a month.

**Table 2**

Descriptive Statistics - Perception on Eco-friendly Products			Cronbach Alpha
	Mean	Std. Deviation	
Are good for the environment	4.43	0.57	0.839
Are healthy	4.13	0.60	
Have better quality/performance than conventional products	3.74	0.82	
Are reasonably priced	3.04	0.99	
Are well promoted	2.98	1.01	
Are accessible/available in the market	3.45	0.95	
Perception on Eco-friendly products	3.63	0.50	

With regard to Consumer perception of eco-friendly products ( $M = 3.63, S. D = 0.50$ ), the highest contribution was from the item are good for the environment ( $M = 4.43, S. D = 0.57$ ), followed by are healthy ( $M = 4.13, S. D = 0.60$ ), Have better quality/performance than conventional products ( $M = 3.74, S.$

$D = 0.82$ ), are accessible/available in the market( $M = 3.45, S. D = 0.95$ ), Are reasonably priced ( $M = 3.04, S. D = 0.99$ ) and are well promoted ( $M = 2.98, S. D = 1.01$ ). The Cronbach alpha reliability value for the constructs is more than 0.70 as suggested by Nunnally (1978).

**Descriptive Statistics: Purchase Intention of Eco-friendly Products**

**Table 3**

	Mean	Std. Deviation	Cronbach Alpha
I choose to purchase products that are eco- friendly only	3.78	0.73	0.851
I prefer eco-friendly products to non-eco-friendly products	3.83	0.67	
I purchase eco-friendly products even if they are costlier than non-eco-friendly products	2.81	1.01	
Even in the future I intent to purchase more eco-friendly products	3.79	0.71	
Purchase Intention of Eco-friendly products	3.55	0.57	

It was found from the descriptive table on Consumers Purchase Intention of eco-friendly products ( $M = 3.55, S. D = 0.57$ ) that, the highest contribution for the construct was from the item I prefer eco-friendly products to non-eco-friendly products( $M = 3.78, S. D = 0.73$ ), Even in the future I intent to

purchase more eco-friendly products( $M = 3.79, S. D = 0.71$ ), I choose to purchase products that are eco- friendly only( $M = 3.78, S. D = 0.73$ ) and I purchase eco-friendly products even if they are costlier than non-eco-friendly products( $M = 2.81, S. D = 1.01$ )

**Independent Sample t-test: Perception of eco-friendly Products and Intention to buy eco-friendly FMCG products with Gender**

**Table 4**

	Male		Female		t-test
	M	S D	M	S. D	
Perception on Eco-friendly products	3.63	0.46	3.62	0.55	-.037 <sup>ns</sup>
Purchase Intention of Eco-friendly products	3.55	0.63	3.55	0.49	.059 <sup>ns</sup>

An Independent sample t-test was conducted to find whether difference of opinion exists among respondents based on gender. No significant difference exists among male ( $M = 3.63, SD = 0.46$ ) and female respondents ( $M = 3.62, SD = 0.55$ ) on Perception on eco-friendly products

$t (78) = -0.37$ . It was also found that male ( $M = 3.55, SD = 0.63$ ) and female respondents ( $M = 3.55, SD = 0.49$ ) does not have any difference in their opinion relating to perception on eco-friendly products  $t (78) = .059$ .

**ANOVA: Difference of opinion among the respondents based on Age, Educational Qualification and Monthly Expenditure on Eco-friendly FMCG Products**

**Table 5**

Age of the respondents	Perception on Eco-friendly products		N	M	S D	F-test
		Below 20 Years	10	3.50	0.49	5.167*
		21-30 Years	26	3.79	0.49	
		31-40 Years	30	3.40	0.46	
		More than 40Years	14	3.89	0.41	
		Total	80	3.63	0.50	

	Purchase Intention of Eco-friendly products	Below 20 Years	10	3.35	0.50	2.824*
		21-30 Years	26	3.69	0.58	
		31-40 Years	30	3.38	0.51	
		More than 40 Years	14	3.79	0.59	
		Total	80	3.55	0.57	
Educational Qualification	Perception on Eco-friendly products	School Level	9	3.78	0.40	0.945 <sub>ns</sub>
		Diploma/Degree	27	3.64	0.47	
		Post-Graduation	36	3.63	0.57	
		Professional	8	3.38	0.29	
		Total	80	3.63	0.50	
	Purchase Intention of Eco-friendly products	School Level	9	3.47	0.46	0.582 <sub>ns</sub>
		Diploma/Degree	27	3.65	0.58	
		Post-Graduation	36	3.53	0.59	
		Professional	8	3.38	0.55	
		Total	80	3.55	0.57	
Monthly-Expenditure on Eco-friendly products	Perception on Eco-friendly products	Less than 500	56.00	3.63	0.53	0.753 <sub>ns</sub>
		501-1000	7.00	3.69	0.39	
		1001-2000	7.00	3.81	0.47	
		more than 2000	10.00	3.45	0.42	
		Total	80.00	3.63	0.50	
	Purchase Intention of Eco-friendly products	Less than 500	56.00	3.55	0.56	0.119 <sub>ns</sub>
		501-1000	7.00	3.54	0.57	
		1001-2000	7.00	3.64	0.75	
		more than 2000	10.00	3.48	0.55	
		Total	80.00	3.55	0.57	

Analysis of Variance test was made in an objective to find whether difference of opinion exist among the respondents relating to perception and intention to buy eco-friendly products based on demographic variables namely age, educational qualification and Monthly expenditure on eco-friendly products. It was depicted that, respondents with different age group have difference of opinion on perception of eco-friendly products in which respondents more than 40 years of age ( $M = 3.94, SD = 0.35$ ) had the highest mean score

compared to the other respondents of different age. While looking into the difference of opinion of respondents on purchase intention of eco-friendly products, significant difference of opinion was noted in which respondents more than 40 years of age ( $M = 3.79, SD = 0.59$ ) had the highest mean score. With regard to difference of opinion among the respondents based on educational qualification and monthly expenditure on eco-friendly products no significant difference of opinion was noted.

**Regression Analysis between Consumer Perception of eco-friendly FMCG products and Purchase Intention**

**Table 6**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.438 <sup>a</sup>	.192	.182	.51197
a. Predictors: (Constant), Perception on Eco-friendly products				

**Table 7**

ANOVA						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.855	1	4.855	18.522	.000 <sup>b</sup>
	Residual	20.445	78	.262		
	Total	25.300	79			
a. Dependent Variable: Purchase Intention of Eco-friendly FMCG products						
b. Predictors: (Constant): Perception on Eco-friendly FMCG products						

Simple linear regression analysis was made in an objective to find whether consumers’ perception of eco-friendly products has any influence on Purchase Intention of consumers. It was

found from the table that, Perception of consumers had a significant positive impact on Purchase intention of consumers towards eco-friendly products ( $F=18.522, p=.000$ ).

Table 8

Coefficients						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	1.760	.420		4.193	.000
	Perception on Eco-friendly products	.494	.115	.438	4.304	.000

a. Dependent Variable: Purchase Intention of Eco-friendly products

While looking into the influence it was found that, Consumer Perception on eco-friendly products had a positive influence on Consumer Intention to Purchase eco-friendly products ( $B=0.438$ ). The Adjusted  $R^2$  (.182) shows variance of the dependent variable being explained by the independent variables. The value of  $R$  (.438) shows a strong relationship between the independent and dependent variables. The adjusted  $R^2$  shows that the independent variable Consumer Perception of eco-friendly products accounted for 18 percent of variance in Consumers purchase intention of eco-friendly products

### Findings

- The number of male and female respondents are almost equal *i.e.* male 52.5% and female 47.5%
- Majority of the respondents were of the age group 31 to 40
- Majority (45%) of the respondents were post graduate degree holders
- Majority *i.e.* 70% of the respondents spend less than Rs.500 per month on eco-friendly FMCG products
- Most of the consumers prefer eco-friendly products because of the reason that the products are eco-friendly in nature and causes less harm for the environment and some of the consumers prefer as the eco-friendly products are healthy
- From the above analysis it was found that majority of the consumers are ready to pay more price for the eco-friendly products
- Most of the consumers are buying eco-friendly products at present and are going to continue to purchase it in future also
- From the above analysis it was found that Perception of consumers had a significant positive impact on Purchase intention of consumers towards eco-friendly products

### Suggestions

From the above study, it is clear that there is a positive influence of the consumer perception on their purchase decision. Majority of the consumers are switching over from the conventional products to eco-friendly products. This is found in almost all the categories of products. FMCG category is not an exception to this. So, the manufacturers and traders should concentrate more on the production and marketing of Eco-friendly FMCG products which are healthier for the consumers and eco-friendly. Even if the price is slightly high compared to the conventional products, most of the consumers are ready to purchase the eco-friendly products in the interest on environment and health.

### Conclusion

From the above study, we can come to know that people are willing to purchase eco-friendly FMCG products provided

they should be convinced with the eco-friendly nature of the product and the price should not be too high compared to the conventional products. Government and Business Organizations should work more in this direction. People should be educated to understand the significance of eco-friendly products in the FMCG sector. Currently people are not spending more on eco-friendly products as much as they are spending on conventional and established products in the FMCG sector. There is a need to market the eco-friendly products by using eco-labels to inform the consumers to easily identify the eco-friendly products.

To conclude, both Government and Marketers should create a good market for the eco-friendly FMCG products, in order to protect the environment for the future generation.

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