



A STUDY ON CONSUMERS AWARENESS TOWARDS GREEN PRODUCTS

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Abstract

In India, environmental protection is the major matter of concern for both the public and the government. In the International market, our poor environmental performance on our goods and services has weighed down our export market. The total environmental burden of human activity is based on population, abundance of resources and advance technology. Based on the findings of the study the level of awareness for certain demographics were found to have very low, suggesting that awareness need to be improved by providing information such as clearly stating environmental benefits when using green products, products characteristics beneficial for environment, benefits achieved by the consumer, comparison of the difference in using non-green products.

Introduction

In India, environmental protection is the major matter of concern for both the public and the government. In the International market, our poor environmental performance on our goods and services has weighed down our export market. The total environmental burden of human activity is based on population, abundance of resources and advance technology. In the present scenario, many companies have incorporated environmental strategy which focuses on controlling pollution. The ecological behaviour of an individual is based on the social context. The development of consumer awareness about the products with their origin and an international environmental awareness has given the marketer an opportunity to facilitate the customers about the green product. Presently, firms have developed eco-friendly products with innovation to reach the customers and the customer is willing to pay for the products that ensure environmental protection.

Statement of the Problem

The study is a niche attempt to find the level of acceptability and reach of Green products among consumers in the market. Hence, it is felt necessary by the researcher that in order to promote the products in the market, the manufacturer should be able to make their products distinct from their competitors' products, not only in quality but also making them eco-friendly. So the study attempts to study the awareness on respondents towards green products.

Objectives

1. To study the socio-economic profile of the respondents.
2. To study the consumer awareness towards green products.

Methodology of the Study

- **Period of the study:** The study conducted for a period of December 2014 - May 2015.
- **Sources of data:** To accomplish the objectives of the study, the researchers have depended on both primary data and secondary data.
- **Primary data:** The study is based on primary data that were collected through a questionnaire.
- **Secondary data:** It was taken from published journals, magazines and from internet.
- **Sample technique:** The research was carried out in and around Coimbatore city. Convenient sample method was used to select the sample.
- **Sample size:** Sample size considered for the study was 500 respondents.
- **Tools used for analysis:** The following tools are used for the study
 - Chi-square test
 - Mean
 - Range

Review of Literature

Passent Tantawi et al. (2009) in their research paper on "Green Consciousness of Consumers in a Developing Country: A Study of Egyptian Consumers" focused the attitude of Egyptian respondents towards the environmental belief. The study found that there was a positive attitude towards the environment i.e., they had high concern about the quality of the environment. The environmental concern is a luxury one and it is afforded only by the wealthy people. The study also suggested the Egyptian Government to initiate environmental awareness policies to improve green purchase.



Chingching Chang (2011) in his study on “Feeling Ambivalent About Going Green Implications for Green Advertising Processing” analyzed the Ambivalence Toward Green Products and Buying Green Products. The study found that consumers had both positive and negative ambivalence attitude on green products which reflect purchase behaviour of green product. The study suggested that traditional attitude of the customers on product cannot change on the response towards ambivalence of green products and green ads makes the customers discomfort on their attitude and make negative impact on the product.

Aditya Maheshwari and Gunjan Malhotra (2011) in their study on “Green Marketing: A Study on Indian Youth” highlighted the awareness, perception, parameters for buying green products and green marketing decision which affects the buying behaviour. The study used F test and found that awareness about the green product is less among the customer. There was a significant influence on consumer buying behaviour of green products which mainly focused on price, brand name, convenient, variety and availability of the green products. The study concluded that customers are not concerned with the environment but they were lay too much on government and industries.

Krishna Kumar Veluri (2012) in his study on “Green Marketing: Indian Consumer Awareness and Marketing Influence on buying decision” examined the green belief, awareness, attitude, availability and marketing effort for consuming non-durable green products. His research work was divided into three parts viz General Environmental Beliefs, Consumer Environmental Behavior and Consumer Buying Behavior. The study founded that consumers had strong agreeability on green belief, environmental attitude and trust on product performance where consumers are unaware of eco-friendly brands due to less effort taken by the green marketer.

Anitha (2012) in her study on “Consumer Awareness and Buying Decisions of Green Products in Tamilnadu, India” analysed the consumer awareness, belief, attitude, availability and buying behaviour towards green products. The questionnaire was constructed using HEP-NEP environmental survey and Roper Starch worldwide environmental behaviour survey. Based on the findings revealed that the customer had positive belief and attitude on eco-friendly products. Since the customers had belief and attitude, they were not much aware about green brands. The author further added that, in regard with marketing effort the gap between the awareness and promotion exist due to less effort by the marketer in promoting the eco brands.

Analysis and Interpretation

Demographics and Respondents Awareness towards Green Products

To study the respondent’s awareness level towards green products in relation with personal factors their opinion were quantified. The following product categories were considered. The cross tabulation explains the values between each variable and the hypothesis were done to find the relationships among the demographic variables and awareness of respondents towards Green Products.

1. Grocery
2. Cleaning /Household
3. Paper products
4. Vegetables
5. Health / Beauty (Cosmetics)
6. Personal care products (Soaps, Shampoos etc.)
7. Health conscious products
8. Automobiles
9. Electronic Goods
10. Apparel and Clothing

For the purpose of analysis five point scaling technique was used to convert the qualitative information (awareness level of the customer) into quantitative one. For the awareness levels the score assigned are as follows:

Very High - score 5, High- score 4, Moderate - score 3, Low - score 2, Very Low - score 1

The sample respondents were divided into three groups in accordance with their perception on the awareness towards green products. The scores obtained by the respondents with regard to their perception are classified into High, Moderate and Low. The mean score analysis explains the range, however, the high level of awareness ranging between 21.10 and 24.50, while the moderate level of awareness ranges from 15.6 to 21.0 and finally, the low level of awareness towards green products ranged between 7 and 15.5. This has been explained in the table below:



Table – 1, Perception of Respondents towards Awareness of Green Products

Level of Awareness	No. of Respondents	Percentage
Low (7.0 to 15.5)	95	19.0
Moderate (15.6 to 21.0)	338	67.6
High (21.1 to 24.5)	67	13.4
Total	500	100.0

Source: Primary Data.

Table 1 reveals that out of five hundred sample respondents, ninety five respondents (19.0 per cent) perceived the level of awareness towards green products as ‘low’; three hundred and thirty eight respondents (67.6 per cent) perceived the level of awareness towards green products as ‘moderate’ and the remaining sixty seven respondents (13.4 per cent) perceived the level of awareness towards green products is ‘high’.

The following selected demographic variables were compared with respondents awareness towards green products.

Hypothesis

H₀: There is no significant difference between the demographic variables of the respondents and the awareness towards green products.

a) Age and Respondents Awareness towards Green Products

Table - 2: Age and Respondents Awareness towards Green Products

Age	No. of Resp.	Average	Range		Opinion on Respondents Awareness about Green Products		
			Min.	Max.	High	Moderate	Low
Below 20 years	65(13.0)	18.58	13.50	24.50	7(10.8)	49(75.4)	9(13.8)
21 years to 30 Years	178(35.6)	17.69	7.00	24.50	18(10.1)	122(68.5)	38(21.3)
31 years to 40 Years	97(19.4)	17.63	12.00	22.50	6(6.2)	68(70.1)	23(23.7)
Above 40 Years	160(32.0)	19.05	13.00	24.50	36(22.5)	99(61.9)	25(15.6)
Total	500	18.24	7.00	24.50	67	338	95

Source: Primary Data

Note: Figures in parenthesis represents percentage

It is clear from the Table 2, the high level of awareness was found among respondents who belong to the age group of above 40 years which is evident from the analysis that the majority (22.5 per cent) of the respondents belong to the age group above 40 years are found to have high level of awareness towards green products. This was followed by the respondents who are below 20 years age (10.8 per cent), 21 years to 30 years (10.1 per cent), and the remaining 6.2 per cent of the respondents belong to the age between 31 years to 40 years who are highly aware about green products.

The low level of awareness was highly found among the respondents who belong to the age group between 31 years to 40 years (23.7 per cent), followed by 21 years to 30 years (21.3 per cent), above 40 years (15.6 per cent) and the remaining 13.8 per cent of the respondents who belong to the age group of below 20 years.

Table - 3: Relationship between Age and Respondents Awareness towards Green Products (Chi-Square Test)

Demographics	Calculated t ² Value	Table Value	D.F	Remarks
Age	20.416	16.812	6	Significant @ 1% Level

Source: Primary Data

It is clear from the above table that the calculated Chi-square value is more than the table value and the result is significant at 1 per cent level. Hence, the hypothesis “age of the respondents and the level of awareness towards the green products” are associated and holds good. From the above analysis, it is concluded that there is significant relationship between the two variables and the null hypothesis is rejected.



b) Sex and Respondents Awareness towards Green Products

Table - 4: Sex and Respondents Awareness towards Green Products

Sex	No. of Resp.	Average	Range		Opinion on Respondents Awareness about Green Products		
			Min.	Max.	High	Moderate	Low
Male	182(36.4)	18.82	11.50	24.50	43(23.6)	106(58.2)	33(18.0)
Female	318(63.6)	17.91	7.00	24.50	24(7.5)	232(73.0)	62(19.5)
Total	500	18.24	7.00	24.50	67	338	95

Source: Primary Data

Note: Figures in parenthesis represents percentage

It is clear from the Table 4 the majority (23.6 per cent) of the male indicated high level of awareness towards green products and 7.5 per cent of the male respondents indicated high level of awareness. Whereas 19.5 per cent of the female respondents indicated low level of awareness and 18.1 per cent of the male respondents stated low level of awareness towards the green products.

Table - 5: Relationship between Sex and Respondents Awareness towards Green Products (Chi-Square Test)

Demographics	Calculated t^2 Value	Table Value	D.F	Remarks
Sex	26.15	9.210	2	Significant @ 1% Level

Source: Primary Data

It is clear from the above table that the calculated Chi-square value is more than the table value and the result is significant at 1 per cent level. Hence, the hypothesis “sex of the respondents and the level of awareness towards the green products” are associated and holds good. From the analysis, it is concluded that there is significant relationship between the two variables and the null hypothesis is rejected.

c) Educational Qualification and Respondents Awareness towards Green Products

Table - 6: Educational Qualification and Respondents Awareness towards Green Products

Educational Qualification	No. of Resp.	Average	Range		Opinion on Respondents Awareness about Green Products		
			Min.	Max.	High	Moderate	Low
Up to School Level	82(16.4)	18.40	8.50	24.50	10(12.2)	60(73.2)	12(14.6)
Diploma / Degree	247(49.4)	18.05	11.50	24.50	26(10.5)	168(68.0)	53(21.5)
Post Graduation	97(19.4)	18.34	8.00	24.50	20(20.6)	55(56.7)	22(22.7)
Professional	74(14.8)	18.56	7.00	24.50	11(14.9)	55(74.3)	8(10.8)
Total	500	18.24	7.00	24.50	67	338	95

Source: Primary Data

Note: Figures in parenthesis represents percentage

It is clear from the Table 6 the high level of awareness was found among post graduates. It is revealed that the majority (20.6 per cent) of the respondents having post graduation are found to have high level of awareness towards green products. This was followed by professionals, who constitute up to 14.9 per cent of the respondents, and following there at 12.2 per cent of the respondents were those who have had school level education and finally the respondents who hold diploma / degree constituted to 10.5 per cent of the respondents with high level of awareness towards green products.

The low level of awareness was found among the 22.7 percent of the post graduates, followed by 21.5 percent of Diploma/Degree holders, 14.6 per cent of the respondents who have had education up to school level and only the least 10.8 per cent amongst the professionals.

Table - 7: Relationship between educational qualification and Respondents Awareness towards Green Products (Chi-Square Test)

Demographics	Calculated t^2 Value	Table Value	D.F	Remarks
Educational Qualification	12.995	12.592	6	Significant @ 5% Level

Source: Primary Data

It is clear from the above table that the calculated Chi-square value is more than the table value and the result is significant at 5 per cent level. Hence, the hypothesis “educational qualification of the respondents and the level of awareness towards the



green products” are associated and holds good. From the analysis, it is concluded that there is significant relationship between the two variables and the null hypothesis is rejected.

d) Occupation and Respondents Awareness towards Green Products

Table - 8: Occupation and Respondents Awareness towards Green Products

Occupation	No. of Resp.	Average	Range		Opinion on Respondents Awareness about Green Products		
			Min.	Max.	High	Moderate	Low
Employee	162(32.4)	17.98	7.00	24.50	25(15.4)	100(61.7)	37(22.8)
Self Employed	51(10.2)	19.03	12.00	23.00	12(23.5)	33(64.7)	6(11.8)
Professional	88(17.6)	17.76	11.50	22.50	3(3.4)	70(79.5)	15(17.0)
Agriculturalist	75(15.0)	18.07	10.50	24.00	11(14.7)	45(60.0)	19(25.3)
Others (Students, Unemployed, etc.)	124(24.8)	18.70	13.00	24.50	16(12.9)	90(72.6)	18(14.5)
Total	500	18.24	7.00	24.50	67	338	95

Source: Primary Data

Note: Figures in parenthesis represents percentage

It is clear from the Table 8 the high level of awareness was found among Self employed category respondents which revealed that the majority (23.5 per cent) of the respondents who are self-employed are found to have high level of awareness towards green products. This was followed by Employed (15.4 per cent), Agriculturists (14.7 per cent), others (12.9 per cent) and the remaining 3.4 per cent of the respondents who are professionals revealed they have high awareness about green products.

The low level of awareness was highly found among the agriculturists (25.3 per cent), followed by Employed (22.8 per cent), Professionals (17 per cent), Others (14.5 per cent) and the remaining 11.8 per cent among Self Employed respondents.

Table - 9: Relationship between occupation and Respondents Awareness towards Green Products (Chi-Square Test)

Demographics	Calculated t^2 Value	Table Value	D.F	Remarks
Occupation	20.650	20.090	8	Significant @ 1% Level

Source: Primary Data

It is clear from the above table that the calculated Chi-square value is more than the table value and the result is significant at 1 per cent level. Hence, the hypothesis “occupation of the respondents and the level of awareness towards the green products” are associated and holds good. From the analysis, it is concluded that there is significant relationship between the two variables and the null hypothesis is rejected.

e) Family Monthly Income and Respondents Awareness towards Green Products

Table - 10: Family Monthly Income and Respondents Awareness towards Green Products

Monthly Income	No. of Resp.	Average	Range		Opinion on Respondents Awareness about Green Products		
			Min.	Max.	High	Moderate	Low
Below ₹.20000	113(22.6)	18.40	11.50	23.50	9(8.0)	88(77.9)	16(14.2)
₹.20001 to ₹.40000	226(45.2)	18.53	13.00	24.50	25(11.1)	171(75.7)	30(13.3)
₹.40001 to ₹.60000	86(17.2)	17.94	7.00	24.50	24(27.9)	36(41.9)	26(30.2)
Above ₹.60000	75(15.0)	17.45	9.50	23.50	9(12.0)	43(57.3)	23(30.7)
Total	500	18.24	7.00	24.50	67	338	95

Source: Primary Data

Note: Figures in parenthesis represents percentage

It is clear from the Table 10 the high level (27.9 per cent) of awareness was found among respondents whose monthly income was between ₹.40001 and ₹.60000 towards green products followed by the above ₹.60000 income group (12 per cent), then the income group of ₹.20001 to ₹.40000 (11.1 per cent), and finally the remaining 8 per cent of the respondents in the monthly income group with below ₹.20000 income, revealed high awareness about green products. The low level of



awareness was highly found among the respondents having income above ₹.60000 (30.7 per cent), followed by ₹.40001 to ₹.60000 (30.2 per cent), Below ₹.20000 (14.2 per cent) and the remaining 13.3 per cent among respondents having income between ₹.20001 and ₹.40000.

Table - 11: Relationship between Family Monthly Income and Respondents Awareness towards Green Products (Chi-Square Test)

Demographics	Calculated t^2 Value	Table Value	D.F	Remarks
Monthly Income	46.943	16.812	6	Significant @ 1% Level

Source: Primary Data

It is clear from the above table that the calculated Chi-square value is more than the table value and the result is significant at 1 per cent level. Hence, the hypothesis “monthly income of the respondents and the level of awareness towards the green products” are associated and holds good. From the analysis, it is concluded that there is significant relationship between the two variables and the null hypothesis is rejected.

f) Type of Family and Respondents Awareness towards Green Products

Table - 12: Type of Family and Respondents Awareness towards Green Products

Type of Family	No. of Resp.	Average	Range		Opinion on Respondents Awareness about Green Products		
			Min.	Max.	High	Moderate	Low
Joint	158(31.6)	18.22	11.50	24.50	34(21.5)	93(58.9)	31(19.6)
Nuclear	342(68.4)	18.25	7.00	24.50	33(9.6)	245(71.6)	64(18.7)
Total	500	18.24	7.00	24.50	67	338	95

Source: Primary Data

Note: Figures in parenthesis represents percentage

It is clear from the Table 12, that the majority 21.5 per cent of the respondents who are in joint family indicated high level of awareness towards green products and 9.6 per cent of the respondents who are in nuclear family indicated high level of awareness. Whereas 19.6 per cent of the respondents who are in joint family indicated low level of awareness and 18.7 per cent of the respondents who are in nuclear family had low level of awareness towards the green products.

Table - 13: Relationship between Type of Family and Respondents Awareness towards Green Products (Chi-Square Test)

Demographics	Calculated t^2 Value	Table Value	D.F	Remarks
Type of Family	14.020	9.210	2	Significant @ 1% Level

Source: Primary Data

It is clear from the above table that the calculated Chi-square value is more than the table value and the result is significant at 1 per cent level. Hence, the hypothesis “type of family of the respondents and the level of awareness towards the green products” are associated and holds good. From the analysis, it is concluded that there is significant relationship between the two variables and the null hypothesis is rejected.

g) Size of Family and Respondents Awareness towards Green Products

Table - 14: Size of the Family and Respondents Awareness towards Green Products

Family Size	No. of Resp.	Average	Range		Opinion on Respondents Awareness about Green Products		
			Min.	Max.	High	Moderate	Low
Small (2 to 3 Members)	150(30.0)	17.69	7.00	24.50	15(10.0)	100(66.7)	35(23.3)
Medium (3 to 5 members)	291(58.2)	18.43	9.50	24.00	36(12.4)	210(72.2)	45(15.5)
Large (More than 5)	59(11.8)	18.69	13.00	24.50	16(27.1)	28(47.5)	15(25.4)
Total	500	18.24	7.00	24.50	67	338	95

Source: Primary Data

Note: Figures in parenthesis represents percentage

It is clear from the Table 14 that the majority (27.1 per cent) of the respondents whose size of the family is large (more than 5 members) expressed high level of awareness towards green products followed by medium sized family (12.4 per cent) and the remaining 10.0 per cent of the respondents whose family size is small (2 to 3 members) had high level of awareness



towards the green products. Among the respondents with low level of awareness of green products, majority (25.4 per cent) of the respondents fall into the large family size (more than 5 members), which is respondents in the small family at 23.3 per cent and the medium sized family had 15.5 per cent of the respondents with low level of awareness towards green products.

Table - 15: Relationship between Size of Family and Respondents Awareness towards Green Products (Chi-Square Test)

Demographics	Calculated t^2 Value	Table Value	D.F	Remarks
Size of the Family	18.947	13.277	4	Significant @ 1% Level

Source: Primary Data

It is clear from the above table that the calculated Chi-square value is more than the table value and the result is significant at 1 per cent level. Hence, the hypothesis “size of the family of the respondents and the level of awareness towards the green products” are associated and holds good. From the analysis, it is concluded that there is significant relationship between the two variables and the null hypothesis is rejected.

SUGGESTIONS TO ENHANCE THE MARKET FOR GREEN PRODUCTS

Based on the findings of the study the level of awareness for certain demographics were found to have very low, suggesting that awareness need to be improved by providing information such as clearly stating environmental benefits when using green products, products characteristics beneficial for environment, benefits achieved by the consumer, comparison of the difference in using non-green products. This shall be promoted by the government, NGOs, manufacturers of green products and volunteers working towards environmental concerns. Steps should be taken to advertise the products and clearly depict the information that shall reach the heart of the consumers who may be influenced with strong faith towards green products. The initiative is also needed to eliminate the problems faced by the marketers who are facing troubles when promoting the products that are not accepted by in large. The modification in the products due to increased consumers concern and future environmental issues shall be focused during marketing and promotion.

CONCLUSION

In the present day world, marketing strategies have gained greater social significance. The results of the study revealed that there is significant relationship between the perceptions towards consumer awareness. However, it is suggested that if the recommendations and suggestions are taken into consideration with due care by the authorities, it will help to enhance the awareness, of green products among consumers that will help the human beings to live in pollution-free environment in the near present and definitely for the future generations.

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