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# Green Marketing and Indian Consumer

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*Abstract: Environmental problems have led government and companies increasingly shift their focus on green marketing and green products. Consumers today also are a stakeholder of this initiative as without them all the efforts in this regards would fail. The main objective of present research is to explore and understand awareness and attitude of consumers are towards green products and services and green marketing initiatives by companies, for which a comparative analysis was done in Delhi-National Capital Region (NCR) and Gorakhpur. Variables like age, income, gender, qualification and regional differentials were taken in consideration for the study. Employing stratified random sampling technique and a five point Likert type scale, the data was collected from the regions. Subsequent analysis was done through various statistical methods including reliability statistics (Cronbach's alpha), descriptive statistics (mean and standard deviation), chi square test, bivariate correlation, one way analysis of variance (ANOVA) and related procedures of multiple comparisons (Games-Howell test) and Levene Statistics for test of homogeneity of variances. Findings suggest that though people have favourable attitude towards green product and marketing, but various variables researched have a slightly different story to tell.*

**Keywords:** Green Marketing, Consumer, Attitude, Region, Green Products

## I. INTRODUCTION AND LITERATURE REVIEW

Rapidly changing environment is now a major concern for the people throughout world, making them more and more concerned about the environment. The quote "save the planet, not shave the planet" is now need of the time. To have a sustainable, pollution free environment, it is paramount to implement the concept of green marketing, so that people are educated in this regards as much as possible. Now the question arises what is green marketing and according to the American marketing association, "Green marketing is the marketing of product that are presumed to be environmentally safe thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes as well as modifying advertising." The earliest definition of green marketing was given by Henion as "the implementation of marketing programs directed at the environmentally conscious market segment" (Henion & Kinnear, 1979, pp: 98-113). Environmental marketing, more popularly known as green marketing or sustainable marketing can be defined as the effort by a company to design, promote, price and distribute products in a manner which promotes environmental protection (Polonsky, 2011).

Early literature indicates shift in consumer attention to green product a precursor to green marketing. There was a great deal of empirical research carried out to identify interest among consumers, in using and purchasing green products (Mintel 1991). In the early 90s, green marketing approach was researched from a corporate interest point of view, which says that 92% of MNCs from Europe changed their products to address growing concerns of environmental pollution (Vandermerwe & Oliff, 1990). Green marketing research has come a long way since then, indicating a growing consciousness among the consumers about the environment in developed part of the world like USA and Western Europe (Curlo, 1999). Research in the last decade (Lee, 2009; Rahbar & Wahid, 2011; Lee, 2008; D Souza, 2004) has further pointed out that purchasers of goods and services are aware and are willing to pay more to "go green". Nevertheless not much research on these lines has been done in developing countries like India (Bhattacharya, 2011).

"Green" is the buzzword that is gaining popularity in the contemporary generation. Both the public sector and the private sector undertakings are embarking on the 'green' bandwagon. According to a popular survey, 87% of people from various nations like Brazil, Canada, China, France, Germany, India, the UK and the US have shown an interest in reducing their impact on the environment (McKinsey, 2007). Nonetheless, showing interest and actually acting on it are two different things.

In a study by Kangis (1992), it is proposed that the challenges both for marketing specialists and for consumers, raised by the concept of green marketing, are due to several issues, such as the lack of an acceptable definition for green marketing, the absence of a clear understanding of cause-and-effect relationships in matters affecting the environment, and the overt and covert reasons for concern about such issues. One of the best ways to make people learn how they could give their contribution through changing their behavior and consumption pattern is



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to generate the need for green marketing and its understanding. Despite of having a great influence in every part of our life there are only few work done in the field of green marketing. Further, research done by Grant (2008) aims to look at how companies obtain a greener strategy and what is the future of green marketing. There have been many researches on environmental consumerism one of the earliest ones dating back to the 1970s (Henion & Kinnear, 1976). Practitioners and marketing academics have done much work on the concept of the impact on marketing on promoting and maintaining ecological balance (Chammaro et al., 2009; Bhattacharya, 2011). According to (Mainieri et al., 1997), the relationship between environmental attitudes and behavior may be confounded by situational factors (social norms, other attractive choices or economic constraints) and personal factors (knowledge, motivation or attitudes). Some such factors have been dealt in the present research also.

## II. JUSTIFICATION OF STUDY

To forecast consuming environmental conscience, it is necessary to investigate the social demographic variables (Jain and Kaur, 2006), so that government and the industry can achieve a better policy mapping for the placement of green products and the determination of the strategy of a marketing - mix that will be the most suitable for the green marketing efforts. The present study helps to understand the concept of green marketing and its theoretical and practical aspects with the special regards of the product and services. It is also helpful to understand the current scenario of green marketing in India such as consumer's awareness about green marketing, their attitude, preferences, and readiness to adapt sustainable and eco friendly products and services. It elaborates the effect of demographic, geographic, and socio-economic conditions of consumer on green marketing practices in India. This research work gives some vital suggestions to industries to enhance their image, profitability, and customer and also to fulfill their social responsibility through adapting some modified green strategies.

## III. OBJECTIVES

The main objectives of the present study are as following:

1. To explore awareness level of people in Delhi-National Capital Region (NCR) and Gorakhpur region about green marketing in the respect of product and services.
2. To analyze the attitude of consumers for green products.
3. To explore the attitude of consumers towards green marketing initiatives by various companies.
4. To explore and analyze attitude of consumers towards green products and green marketing initiatives of companies for the variables region, age, education and income.
5. To recommend how green marketing initiatives can be made successful for government, industry and consumers.

## IV. STATEMENT OF HYPOTHESIS

### A. Null Hypothesis ( $H_0$ )

There is no significant difference in attitude between the consumers in Delhi NCR and Gorakhpur towards green products.

### Alternative ( $H_1$ )

There is a significant difference in attitude between the consumers in Delhi NCR and Gorakhpur towards green products.

### B. Null Hypothesis ( $H_0$ )

There is no significant difference in attitude between the male and female consumers towards green products.

### Alternative ( $H_1$ )

There is a significant difference in attitude between the male and female consumers towards green products.

### C. Null Hypothesis ( $H_0$ )

As the age of consumers increase they have less favorable attitude towards green products.

### Alternative ( $H_1$ )

As the age of consumers increase they have favorable attitude towards green products.

### D. Null Hypothesis ( $H_0$ )

More the income there would be less favorable attitude of consumers towards green product.

### Alternative ( $H_1$ )

More the income there would be favorable attitude of consumers towards green product.

### E. Null Hypothesis ( $H_0$ )

As age of the consumer increases their attitude is not favorable towards green marketing initiatives by companies.



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**Alternative (H<sub>1</sub>)**

As age of the consumer increases their attitude is favorable towards green marketing initiatives by companies.

**F. Null Hypothesis (H<sub>0</sub>)**

There is no significant difference in attitude between the consumers of NCR and Gorakhpur towards green marketing initiatives by companies.

**Alternative (H<sub>1</sub>)**

There is a significant difference in attitude between the consumers of NCR and Gorakhpur towards green marketing initiatives by companies.

**G. Null Hypothesis (H<sub>0</sub>)**

As income of the consumers increases their attitude is not favorable towards green marketing initiatives by companies.

**Alternative (H<sub>1</sub>)**

As income of the consumers increases their attitude is a favorable towards green marketing initiatives by companies.

**V. METHODOLOGY**

**A. Research Design, Sample and Instruments:** A non-experimental, descriptive, and quantitative research design was employed in the current research. The study has been conducted on various demographic characteristics of population such as age, gender, qualification, marital status, and income with sample size of 126 (after rejections and discrepancies), equally divided into those from Delhi NCR and Gorakhpur. The stratified random sampling technique was used in the present research, stratum being the above two regions. Questionnaire having five point Likert type scale, having open and close ended questions was used in the research. Various statistical methods have been employed to analyze the data which includes reliability statistics (Cronbach's alpha), descriptive statistics (mean and standard deviation), chi square test, bivariate correlation, one way analysis of variance (ANOVA) and related procedures of multiple comparisons (Games-Howell test) and Levene Statistics for test of homogeneity of variances.

**VI. FINDINGS**

**A. Demographic Profile**

The demographic profile of consumers include 38.9% respondents who are below 25 years, 42.1% are 25-30, 12.7% are 30-35, 3.2% are 35-40 and 3.2% are 40-45 of age. 65.9% respondents are male and rests 34.1% are female. As far as educational qualifications are concerned 32.5 percent have bachelor degree, 52.4% are masters, 6.5% are doctorate and rest 9.5% has other kinds of qualification. On the ground of marital status 50% are married and rests 50 % are single. If we talk about income group 19.8% are students and have no income, 20.6% have income of less than Rs. 15000, 34.1% have monthly income between Rs. 15000-23000, 12.7% have monthly income between Rs. 23000-32000, 9.5% have monthly income between Rs. 32000-40000 and rest of 3.2% have more than Rs. 50000 of monthly income.

**B. Familiarity with and attitude towards Green Marketing and environment**

In all of the 126 respondents 63.5% were familiar with the concept of green marketing and rest 36.5% was unaware about this concept. A majority at 88.1% although claim that they worry about the environment.

**C. Reliability Statistics**

**1. Consumer attitude scale and initiative scale**

Reliability procedures for the reflective scales comprised the calculation of Cronbach's alphas mentioned in table 1. With 14 items in the consumer attitude scale and 16 for initiatives scale, the reliability coefficient was .768 and .633 respectively. Nunnally and Bernstein (1994) consider values that vary around 0.50 as being the lower limit of acceptability and all the above mentioned values are thus deemed acceptable.

**Table 1: Reliability Statistics**

Scales	Cronbach's Alpha	No. of Items
Consumer Attitude Scale	.768	14
Initiatives Scale	.633	16



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**D. Consumer attitude towards green products**

**1. Differentials of Region**

Consumer attitude towards green products and green marketing was analysed through consumer attitude scale. To test the null hypothesis that there is no significant difference in attitude between the consumers in Delhi NCR and Gorakhpur towards green products chi square test (value=6.583, df 2 and  $p < .05$ ) was performed, presented in table 2. The null hypothesis is rejected, which implies that statistically speaking consumers in these two regions have different attitudes for green products.

**Table 2: Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.583	2	.037
Likelihood Ratio	8.901	2	.012
Linear-by-Linear Association	.774	1	.379
N of Valid Cases	126		

**2. Descriptive Statistics**

With mean of 3.84, standard deviation .574, consumers in Gorakhpur have most favorable attitude towards green products as compared to their counterparts in Delhi NCR (mean 3.76, standard deviation .429).

**3. Differentials of Gender**

Further, analyzing the gender differentials, it was found that statistically speaking there is no difference of attitude towards green products among the male and female respondents. The null hypothesis that there is no significant difference in attitude between the male and female consumers towards green products chi square test (value=4.882, df 2 and  $p < .05$ ) is accepted, it is presented in table 3.

**Table 3: Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.882	2	.087
Likelihood Ratio	6.715	2	.035
Linear-by-Linear Association	4.119	1	.042
N of Valid Cases	126		

**4. Age and consumer attitude for green products:**

The null hypothesis as the age of consumers increase they have less favorable attitude towards green products was tested. The one-tailed bivariate correlation test presented in table 4 provides a matrix of correlation coefficients for the two variables (age of consumers and consumer attitude) along with the significance values. Age is negatively correlated with consumer attitude towards green products, a correlation coefficient of  $r = -.092$  which is significant at  $p < 0.01$  (one-tailed significance value = .006), accepting the null hypothesis. Therefore increase in the age of the consumer means that they have less favorable attitude towards green products.

**Table 4: Correlations**

		Age	Consumer Attitude
Age	Pearson Correlation	1	-.092
	Sig. (1-tailed)		.006
	N	126	126
Consumer Attitude	Pearson Correlation	-.092	1
	Sig. (1-tailed)	.006	
	N	126	126

**5. Income and consumer attitude for green products**

The null hypothesis more the income there would be less favorable attitude of consumers towards green product is tested through one-tailed bivariate correlation test which is in consonance with the observations and directions given by Minimum et al. (2008, p. 284). Table 5 provides a matrix of correlation coefficients for the two variables (income and consumer attitude) along with the significance values. Each variable is perfectly correlated with itself (obviously) and so  $r = 1$ . Income is negatively correlated with consumer attitude towards



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green products, a correlation coefficient of  $r = -.089$  which is significant at  $p < 0.01$  (one-tailed significance value = .000), accepting the null hypothesis as increase in income of the consumers statistically states less favorable attitude towards green products.

Table 5: Correlations

		Income	Consumer Attitude
Income	Pearson Correlation	1	-.089
	Sig. (1-tailed)		.000
	N	126	126
Consumer Attitude	Pearson Correlation	-.089	1
	Sig. (1-tailed)	.000	
	N	126	126

**E. Consumer attitude towards green marketing initiatives by companies**

Age factor:

Table 6: Correlations

		Age	Org. Initiative for GM
Age	Pearson Correlation	1	.194*
	Sig. (1-tailed)		.000
	N	126	126
Org. Initiative for GM	Pearson Correlation	.194*	1
	Sig. (1-tailed)	.000	
	N	126	126

\*. Correlation is significant at the 0.05 level (1-tailed).

Analyzing table 6, which provides a matrix of correlation coefficients for the variables, it is found that age is positively correlated with consumer attitude towards green marketing initiatives by companies. A correlation coefficient of  $r = .194$  which is significant at  $p < 0.01$  (one-tailed significance value = .000), rejects the null hypothesis that as age of the consumers increases their attitude is not favourable towards green marketing initiatives by companies.

**1. City Wise**

Further, analyzing the city wise differentials, it was found that statistically speaking there is no difference of attitude of consumers towards green marketing initiatives by companies among the respondents of NCR and Gorakhpur. The null hypothesis that there is no significant difference in attitude between the consumers of NCR and Gorakhpur towards green marketing initiatives by companies with chi square test (value=1.290, df 2 and  $p < .05$ ) is accepted, it is presented in table 7.

Table 7: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.290	2	.525
Likelihood Ratio	1.304	2	.521
Linear-by-Linear Association	.035	1	.851
N of Valid Cases	126		

**2. Income Factor**

Table 8 provides a matrix of correlation coefficients for the variables income and consumer attitude towards green marketing initiatives by companies, a positive correlation is found. A correlation coefficient of  $r = .047$  which is significant at  $p < 0.01$  (one-tailed significance value = .009), rejects the null hypothesis that as income of the consumers increases their attitude is not favorable towards green marketing initiatives by companies.

Table 8: Correlations

		Income	Org. Initiative for GM
Income	Pearson Correlation	1	.047



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	Sig. (1-tailed)		.009
	N	126	126
Org. Initiative for GM	Pearson Correlation	.047	1
	Sig. (1-tailed)	.009	
	N	126	126

#### VII. KEY FINDINGS

1. A majority of respondents were familiar with the concept of green marketing and worry about the environment.
2. Consumers in NCR and Gorakhpur regions have different attitude towards green products, with latter having more favorable attitude.
3. Male and female respondents show no significant difference in attitude towards green products.
4. Consumers who are older have less favorable attitude towards green products.
5. Richer consumers have less favorable attitude towards green products.
6. Older consumers have less favorable attitude towards green marketing initiatives by companies.
7. Attitude towards green marketing initiatives by companies is statistically not different among the consumers of NCR and Gorakhpur regions.
8. Richer consumers nonetheless have favorable attitude towards green marketing initiatives by companies.
9. Education wise one way analysis of variance ANOVA and related procedure of Games-Howell (multiple comparisons) was applied and statistically speaking no significant differences were found among various educational levels vis-à-vis consumer attitude towards green products and initiatives taken by companies towards green marketing.

#### VIII. RECOMMENDATIONS AND CONCLUSION

- a. Companies should start organised and unified campaigning to enhance the awareness about green marketing among customers, keeping factors like age, region, and income among others in perspective.
- b. Marketers and producer should develop their product and services according to the genuine need of the customers because merely producing the green product and services is not enough rather that must be well suited to the reality of customers need.
- c. The research and development expenses should be increased as it will bring some new innovative and better ways to generate, communicate and deliver green product and services.
- d. Government should promote green concept of product and services and eventually should move towards green economy.
- e. Government should subsidise the green efforts, so that marketer could avail green product and services at reasonable prices.
- f. Organisations should introduce new ways of enhancing green efforts such as at the recruitment of new employee their green contribution should also be acknowledged with their academic qualification.
- g. Organisations should adapt green policies as long term strategy because most of the green efforts took heavy initial cost but in long term it is beneficial and cost effective to the organisations.
- h. It could easily be concluded here that much work and efforts are required on part of the government and industry for proper planning and implementation of green marketing. The attitude of the consumers towards better environment and subsequently their contribution in making the green marketing initiatives successful is of paramount importance. No amount of Endeavour vis-à-vis green marketing would be successful without their participation.

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