



Green Marketing: A Study of Consumer Buying Behavior with regards to Eco-friendly products in Gujarat

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ABSTRACT

Green marketing is a phenomenon which has developed particular important in the modern market. This concept has enabled for the re-marketing and packaging of existing products which already adhere to such guidelines. In the present research it explores this under-researched area in the context of environmentalism and examines the moderating effect of consumers' buying behavior towards eco-friendly products. Are the consumers willing to pay more for eco-friendly products? And what are the factors affecting the buying behavior of consumers towards eco-friendly products? Research suggests that consumers who are highly involved and concerned with the environmental issues prefer to buy eco- friendly products and are willing to pay a higher price for such products.

Abstract:

Green marketing is a phenomenon which has developed particular important in the modern market. This concept has enabled for the re-marketing and packaging of existing products which already adhere to such guidelines. In the present research it explores this under-researched area in the context of environmentalism and examines the moderating effect of consumers' buying behavior towards eco-friendly products. Are the consumers willing to pay more for eco-friendly products? And what are the factors affecting the buying behavior of consumers towards eco-friendly products? Research suggests that consumers who are highly involved and concerned with the environmental issues prefer to buy eco- friendly products and are willing to pay a higher price for such products.

Introduction:

On a global level, there is an increased awareness of global warming and adverse climate conditions and as a result there is a spur in interest toward environmental protection and sustainable development. The rapid economic growth in the past years have witnessed increasing consumers' consumption worldwide causing environmental deterioration through over-consumption and utilization of natural resources (Chen & Chai,2010).

One type of environmentally conscious behavior is environmental consumerism (green buying)--purchasing and consuming products that are gentle towards the environment. The rising number of consumers who prefer and are willing to buy eco-friendly products are creating opportunity for businesses that are using "eco-friendly" or "environmentally friendly" as a component of their value proposition.

Increasing focus on environmental issues can be seen as an indication that pro-environmental concerns have emerged as a potential strategic concern for businesses (Polonsky & Kilbourne, 2005; Menon & Menon, 1997). The belief is that the consumer's pro-environmental concern is one of the determinants of their "green buying" behavior i.e., buying and consuming products that are environmentally beneficial (Mainieri et al., 1997).

Green Marketing:

According to the American Marketing Association, green marketing is the marketing of products or goods that are supposedly believed to be environmentally safe. Green Marketing

is also alternatively termed as environmental marketing or ecological marketing.

According to Pride and Ferrel (1993), Green marketing (also called as Environmental Marketing and sustainable marketing) refers to an Organization's efforts at designing, promoting, pricing and distributing products that will not harm the environment.

Polonsky (1994) defines Green Marketing as all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants occurs, with minimal detrimental impact on the natural environment.

Green Marketing in India:

Kansai Nerolac Paints has been at the forefront of paint manufacturing for more than 88 years pioneering a wide spectrum of quality paints. Kansai Nerolac has worked on removing hazardous heavy metals from their paints – among this lead being the most prominent metal. Kansai Nerolac does not add any lead or other such heavy metals in its manufacturing process. New Delhi, the Capital of India, was being polluted at a very fast pace until Supreme Court of India forced a change to alternative fuels. In 2002, a directive was issued to completely adopt CNG in all public transport systems to curb pollution. Gas Tech Electronic Products (Pvt) Ltd. has invented LPG Kit for motorcycles/scooters (4 stroke and 2 stroke). Can be fitted in 50 cc to 375 cc air cooled , single cylinder 2 stroke as well 4 stroke vehicles with cent % fuel efficiency, with clean exhaust and zero pollution.

Review of Literature:

- R. Shrikanth, D.Surya Narayana Raju (2012) aims at finding out what actually Green Marketing is all about and how can a business firm be more competitive by using green marketing strategies to gain a competitive edge over others. It explores the main issues in adoption of green marketing practices.
- Tan Booi Chen & Lau Teck Chai (2010) expressed two objectives; first objective is to compare gender with attitudes towards the environment and green products. The second objective is to investigate the relationship between attitude towards the environment and green products.
- Dr. M.N. Welling and Mrs. Anupamaa S Chavan (2010)

paper tries to study the feasibility of practicing green marketing in case of small and medium scale manufacturers in Mumbai city and its suburb, (India). It analyses whether these manufacturers are aware about green products and eco-labeling, and also the difficulties in implementing green marketing.

- Ashish Vasant Rao Gadekar and Rimalini Ashish Gadekar (2012) highlighted that green marketing can operate from three perspectives: the personal, through products and individual benefits, the social, through communities and associations, and public, doing business and cultural leaders, credible resources.
- Aseem Prakash (2002) focuses primarily on promoting products by employing claims about their environmental attributes or about firms that manufacture and/or sell them. Secondly, it focuses on product and pricing issues.
- Pavan Mishra & Payal Sharma (2010) had discussed how businesses have increased their rate of targeting green consumers, those who are concerned about the environment and allow it to affect their purchasing decisions.
- Dr. Sandhya Joshi (2011) highlighted the terms and concept of green-marketing; about the importance of green marketing; why firms use green marketing, it also highlights some problems that organization may face to implement green marketing.
- Sanjay K. Jain and Gurmeet Kaur (2004) paper makes an assessment of the extent of environmental awareness, attitudes and behavior prevalent among consumers in India.
- Paranjape Anand, Bhakare Saurabh, Mathur Neha (2012) expressed the objective of this present research was to evaluate the environmental literacy among the selected samples and their willingness to pay extra among the selected samples.
- Saroj Kumar Datta, Ishaswini (2011) expressed objectives of the study are to determine the consumers' pro-environmental concerns, knowledge of environmental issues, awareness of eco-friendly products, and to make recommendations based on the findings about their "Green Buying" behavior in Indian context.
- Jacquelyn A. Ottman (June 2006), the basic focus of this article was that Green marketing must satisfy two objectives: improved environmental quality and customer satisfaction.

Research Methodology:

1. Rational of the Study:

This research is based on the consumer buying behavior with regards to eco-friendly products in Gujarat. The research emphasizes on pro-environmental concern which is likely to affect green buying behavior. This research is basically helpful to the green marketer who can identify such segment of consumers and accordingly design and market products at suitable price levels. Pro-environmental concerns can be raised by advertising that individual buying behavior can make a difference and can have an impact on the welfare of the environment. Finding from this work also suggest that the segment of consumers willing to pay more for eco-friendly products in Gujarat.

2. Objective of the study:

- To identify if consumers are willing to pay more for eco-friendly products.
- To identify if education level and income levels affect the buying behavior on consumers for eco-friendly products.

- To study consumer attitude towards green marketing.

3. Data Collection:

The questionnaire for this study was administered to 50 randomly selected respondents. Personal interview method was conducted on these 50 respondents. As the respondent were selected randomly so there is no specific age group.

4. Hypothesis of the Study:

- I. Agreement towards needs of eco-friendly products in independence of age-group.
- II. Agreement towards needs of eco-friendly products in independence of income.
- III. Agreement towards needs of eco-friendly products in independence of occupation.
- IV. Agreement towards needs of eco-friendly products in independence of qualification.

5. Limitation of the Study:

- I. Present Study is based on primary data and primary data has its own limitations which might affect the study.
- II. Statistical tools have its own limitations and it will affects to present study.
- III. As personal interview method is used in the study, there may be chances that the respondent may give fake answers.
- IV. Sample size of the research may affect the study.

Analysis and Result

Hypothesis 1

H0: Agreement towards needs of eco-friendly food products is independent of age-group

H1: Agreement towards needs of eco-friendly food products is not independent of age-group

| Age Group | strongly disagree | Disagree | indifference | agree | strongly agree | |
|--------------|-------------------|----------|--------------|-------|----------------|----|
| 18-24 | 0 | 0 | 2 | 5 | 2 | 9 |
| 25-35 | 0 | 0 | 1 | 12 | 8 | 21 |
| 35-60 | 0 | 0 | 1 | 3 | 7 | 11 |
| 60 and above | 0 | 0 | 1 | 4 | 4 | 9 |
| | 0 | 0 | 5 | 24 | 21 | 50 |

| fo | fe | (fo-fe) ² | (fo-fe) ² /fe |
|----|-------|----------------------|--------------------------|
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 2 | 0.9 | 1.21 | 1.344444 |
| 5 | 4.32 | 0.4624 | 0.107037 |
| 2 | 3.78 | 3.1684 | 0.838201 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 2.1 | 1.21 | 0.57619 |
| 12 | 10.08 | 3.6864 | 0.365714 |
| 8 | 8.82 | 0.6724 | 0.076236 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 1.1 | 0.01 | 0.009091 |
| 3 | 5.28 | 5.1984 | 0.984545 |
| 7 | 4.62 | 5.6644 | 1.226061 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 0.9 | 0.01 | 0.011111 |
| 4 | 4.32 | 0.1024 | 0.023704 |
| 4 | 3.78 | 0.0484 | 0.012804 |
| | | | 5.575139 |

$\alpha = 0.05$, degree of freedom (df) = (r-1)*(c-1) = (4-1) (5-1) =12

X2 cal = 5.575 < χ^2 tab. = 21.0296

Hence we fail to reject H0. So, we can say that Agreement towards needs of eco-friendly food products is independent of age-group

Hypothesis 2

Ho: Agreement towards needs of eco-friendly Home Appliance products is independent of income

H1: Agreement towards needs of eco-friendly Home Appliance products is not independent of income

| Income Level | strongly disagree | Disagree | indifference | agree | strongly agree | |
|------------------|-------------------|----------|--------------|-------|----------------|----|
| 10000-30000 | 0 | 0.92 | 1.38 | 13.8 | 6.9 | 23 |
| 40000-60000 | 0 | 0.36 | 0.54 | 5.4 | 2.7 | 9 |
| 60000-100000 | 0 | 0.24 | 0.36 | 3.6 | 1.8 | 6 |
| 100000 and above | 0 | 0.48 | 0.72 | 7.2 | 3.6 | 12 |
| | 0 | 2 | 3 | 30 | 15 | 50 |

| fo | Fe | (fo-fe) ² | (fo-fe) ² /fe |
|----|------|----------------------|--------------------------|
| 0 | 0 | 0 | 0 |
| 1 | 0.92 | 0.0064 | 0 |
| 1 | 1.38 | 0.1444 | 0.104638 |
| 17 | 13.8 | 10.24 | 0.742029 |
| 4 | 6.9 | 8.41 | 1.218841 |
| 0 | 0 | 0 | 0 |
| 0 | 0.36 | 0.1296 | 0 |
| 0 | 0.54 | 0.2916 | 0.54 |
| 5 | 5.4 | 0.16 | 0.02963 |
| 4 | 2.7 | 1.69 | 0.625926 |
| 0 | 0 | 0 | 0 |
| 0 | 0.24 | 0.0576 | 0 |
| 1 | 0.36 | 0.4096 | 1.137778 |
| 3 | 3.6 | 0.36 | 0.1 |
| 7 | 1.8 | 27.04 | 15.02222 |
| 0 | 0 | 0 | 0 |
| 0 | 0.48 | 0.2304 | 0 |
| 1 | 0.72 | 0.0784 | 0.108889 |
| 6 | 7.2 | 1.44 | 0.2 |
| 5 | 3.6 | 1.96 | 0.544444 |
| | | | 20.3744 |

$\alpha = 0.05$, degree of freedom (df) = (r-1)*(c-1) = (4-1) (5-1) = 12

X2 cal = 20.3744 < χ^2 tab. = 21.0296

Hence we fail to reject H0. So, we can say that Agreement towards needs of eco-friendly Home Appliance products is independent of income

Hypothesis 3

Ho: Agreement towards needs of eco-friendly Energy Supply products is independent of occupation

H1: Agreement towards needs of eco-friendly Energy Supply products is not independent of occupation

| Occupation | strongly disagree | Disagree | indifference | agree | strongly agree | |
|------------|-------------------|----------|--------------|-------|----------------|----|
| Employed | 0 | 1 | 1 | 11 | 17 | 30 |
| Unemployed | 0 | 0 | 1 | 2 | 1 | 4 |

| | | | | | | |
|---------------|---|---|---|----|----|----|
| Self employed | 0 | 0 | 0 | 5 | 4 | 9 |
| Business | 0 | 1 | 0 | 3 | 2 | 6 |
| Student | 0 | 0 | 0 | 1 | 0 | 1 |
| | 0 | 2 | 2 | 22 | 24 | 50 |

| fo | fe | (fo-fe) ² | (fo-fe) ² /fe |
|----|------|----------------------|--------------------------|
| 0 | 0 | 0 | 0 |
| 1 | 1.2 | 0.04 | 0 |
| 1 | 1.2 | 0.04 | 0.033333 |
| 11 | 13.2 | 4.84 | 0.366667 |
| 17 | 14.4 | 6.76 | 0.469444 |
| 0 | 0 | 0 | 0 |
| 0 | 0.16 | 0.0256 | 0 |
| 1 | 0.16 | 0.7056 | 4.41 |
| 2 | 1.76 | 0.0576 | 0.032727 |
| 1 | 1.92 | 0.8464 | 0.440833 |
| 0 | 0 | 0 | 0 |
| 0 | 0.36 | 0.1296 | 0 |
| 0 | 0.36 | 0.1296 | 0.36 |
| 5 | 3.96 | 1.0816 | 0.273131 |
| 4 | 4.32 | 0.1024 | 0.023704 |
| 0 | 0 | 0 | 0 |
| 1 | 0.24 | 0.5776 | 0 |
| 0 | 0.24 | 0.0576 | 0.24 |
| 3 | 2.64 | 0.1296 | 0.049091 |
| 2 | 2.88 | 0.7744 | 0.268889 |
| 0 | 0 | 0 | 0 |
| 0 | 0.04 | 0.0016 | 0.04 |
| 0 | 0.04 | 0.0016 | 0.04 |
| 1 | 0.44 | 0.3136 | 0.712727 |
| 0 | 0.48 | 0.2304 | 0.48 |
| | | | 8.240547 |

$\alpha = 0.05$, degree of freedom (df) = (r-1)*(c-1) = (5-1) (5-1) = 16

X2 cal = 8.2405 < χ^2 tab. = 26.2962

Hence we fail to reject H0. So, we can say that Agreement towards needs of eco-friendly Energy Supply products is independent of occupation

Hypothesis 4

Ho: Agreement towards needs of eco-friendly Personal care products is independent of qualification

H1: Agreement towards needs of eco-friendly Personal care products is not independent of qualification

| Education | strongly disagree | Disagree | indifference | agree | strongly agree | |
|---------------|-------------------|----------|--------------|-------|----------------|----|
| Undergraduate | 0 | 0 | 1 | 2 | 1 | 4 |
| Graduate | 0 | 0 | 1 | 7 | 25 | 33 |
| Postgraduate | 0 | 1 | 1 | 5 | 6 | 13 |
| | 0 | 1 | 3 | 14 | 32 | 50 |

| fo | fe | (fo-fe) ² | (fo-fe) ² /fe |
|----|------|----------------------|--------------------------|
| 0 | 0 | 0 | 0 |
| 0 | 0.08 | 0.0064 | 0 |
| 1 | 0.24 | 0.5776 | 2.406667 |
| 2 | 1.12 | 0.7744 | 0.691429 |
| 1 | 2.56 | 2.4336 | 0.950625 |
| 0 | 0 | 0 | 0 |
| 0 | 0.66 | 0.4356 | 0 |

| | | | |
|----|-------|---------|----------|
| 1 | 1.98 | 0.9604 | 0.485051 |
| 7 | 9.24 | 5.0176 | 0.54303 |
| 25 | 21.12 | 15.0544 | 0.712803 |
| 0 | 0 | 0 | 0 |
| 1 | 0.26 | 0.5476 | 0 |
| 1 | 0.78 | 0.0484 | 0.062051 |
| 5 | 3.64 | 1.8496 | 0.508132 |
| 6 | 8.32 | 5.3824 | 0.646923 |
| | | | 7.00671 |

$\alpha = 0.05$, degree of freedom (df) = $(r-1)*(c-1) = (3-1) (5-1) = 8$

$\chi^2_{cal} = 7.0067 < \chi^2_{tab.} = 15.5073$

Hence we fail to reject H_0 . So, we can say that Agreement towards needs of eco-friendly Energy Supply products is independent of occupation

Discussion and Conclusion:

Green marketing is a tool for protecting the environment for the future generation. Because of the growing concern of en-

vironmental protection, there is an emergence of a new market which is the green market. For companies to survive in this market, they need to go green in all aspect of their business. Consumers want to identify themselves with companies that are green compliant and are willing to pay a premium for a greener life style. As such, green marketing is not just an environmental protection tool but also, a marketing strategy.

Most consumers' spending pattern shows that they have a desire for brands that 'go green'. Consumers not only want to buy their products but are willing to pay more for it. Based on hypothesis, we have seen that needs of eco-friendly products is independent of age-group, income group, occupation and qualification. The results of this research must be used with caution as the number of respondent are limited. So understanding consumer behavior is also very necessary because it is not only influenced by the macro variables like age, locality, demographic, sex, family background etc. but also influenced by as micro variable as the hour of the day.

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