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# A STUDY ON NON-PURCHASERS OF NATURAL PRODUCTS AND THEIR PRODUCT EXPECTATIONS FOR GREEN MARKETING IN CHENNAI AND TRICHY CITIES

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## ABSTRACT

Green marketing can be comprehended as marketing without detrimental impact on environment, in present scenario it is moving towards differentiating product from that of competitors. Existing reviews imply the imperativeness of understanding product expectation of non-purchasers of green products to motivate them to go for green products. It is important motivating non-purchasers to go for green products, comprehending influence of non-purchasers demographic variables regarding natural product buying intention to identify and arrive at basis to segment the market for natural products.

This research found out non-purchasers buying intension and expectation by enquiring their response if natural product or green product is introduced as eco-friendly variant of their regularly buying personal care and home care brands. Kruskal wallis test was done to find influence of demographic variables on buying intention of natural products of non-purchasers, Multiple regression was used to analyse product expectation regarding natural tooth paste among non-purchasers.

**KEYWORDS:** Green Marketing, Environmental Management, Non-Purchasers, Product

## INTRODUCTION

**Ottman 1993 Davis 1993 and Kangun 1994 defines**" Green marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs with minimal detrimental impact on the natural environment"

According to ottman and Davis "Green Marketing involves product design with eco-friendly ingredients and minimal usage of resources in production process, eco-friendly or bio-degradable packaging, distribution with less emission at the same time satisfying needs and wants of humans in order to facilitate exchange.

**Michael Kuhn 2005** indicates green marketing is moving towards companies using environmental differentiation as a vehicle for overcoming competition but this is not the sole reason for going green, if improvements in the environmental performance drive-up variable production costs a clean firm will be placed at a cost disadvantage. This can be traded off against quality/environmental advantage that allows the firm to extract a premium from its customers. Competitive strategy within such an industry will then be determined in the triangle of cost advantage vs quality/environmental advantage vs product differentiation.

Thus from earlier definition green marketing can be comprehended as marketing without detrimental impact on environment in present scenario it is moving towards differentiating product from that of competitors.

## REVIEW OF LITERATURE

**Roberts (1996**). Studies showing relationship between age and green behaviour is inconclusive. One study shows positive correlation between the two(Roberts 1996) while other shows negative correlation between the two(vanlier and Dunlop 1981). Regarding education consumer with higher level of education show greater concern for environment and more like to consume product that least affect environment. Income positively correlates with environment people with higher and middle income are more likely to engage in pro-environmental consumption**.**

**William E.Kilboume (1998)** The development of Green marketing is a necessary condition for the reconciliation of human needs and nature. Because of its inchoate character However green marketing and its potential are not yet fully understood. Recent developments in green marketing thought do reflect a growing recognition of the Imminent failure of the DSP (Domestic social paradigm) and research has begun to incorporate more diverse perspectives.

**Laroche, M., Bergeron, J. and Barbaro-Forleo, G. (2001)** conclude that the segment of consumers that are willing to pay a premium for environmentally friendly products is of sufficient size to warrant the attention of marketers. The segment that is willing to offer premium is large enough to be targeted by marketers.

**Sanjay K. Jain * & Gurmeet Kaur(Dec 2004)** Indian consumers are concerned, they too have, over time, started becoming environmentally conscious. But they have been engaging in environment friendly behaviour mostly on account of their own self interest rather than any sincere concern for the environment as such. Safe guarding personal health, for instance, is a bigger motivating factor than the general environmental concern behind the purchases of environment-friendly products. Attitudinal change at grass root level is essential for modifying consumer behaviour. Information is lacking on what inhibits consumer to go for green products and what will motivate them to buy green products.

Research studies investigating consumer attitudinal and behavioural aspects of the environment by academicians be initiated to fill the information void and to make it possible for government agencies, non-government organizations and business firms to evolve pragmatic environmental Campaigns and green marketing strategies.

## MICHAEL KUHN(2005)

A purely altruistic consumer who is directly concerned about the state of environment but rationally expects her purchasing decision to have no measurable impact will not engage in green consumption. In contrast an individual solely driven by green glow would purchase environmentally friendly products as a person with green glow receives warm glow by doing public good. Hence green consumption behaviour will occur only if it is honoured by society or at least by individual peers. Green consumerism is still a very limited phenomenon regarding both the share of green consumers in the overall population and the willingness to pay for environmentally superior products even among those concerned about the environment.

## D'SOUZA, TAGHIAN & KOLSA (2007)

People who know well about environmental issues such as global warming, climate change, ozone layer penetration, Green House gases, toxic chemicals will be more likely to purchase green products. With confusion surrounding green marketing it is difficult to identify green consumers as this is little known segment. Proper description about the segment income wise, Age wise or Education wise is not available country specific or region specific and it differs from country to country. Education and Environmental oriented consumers are likely to go green than traditional used demographic variables such as age, gender and income. However definite relationship of education, environmental orientation and going green is yet to be established.

## RESEARCH GAPS

Reviews imply the imperativeness of understanding product expectation of respondents regarding green products to motivate them to go for green products. Research gaps from reviews also indicate motivating non-purchasers to go for green products, comprehending influence of non-purchasers demographic variables regarding natural product buying intention to identify and arrive at basis to segment the market for natural products.

This research found out non-purchasers buying intension and expectation by enquiring their response if natural product or green product is introduced as eco-friendly variant of their regularly buying personal care and home care brands. This response is related with research gaps of product expectation and influence of demographic variables.
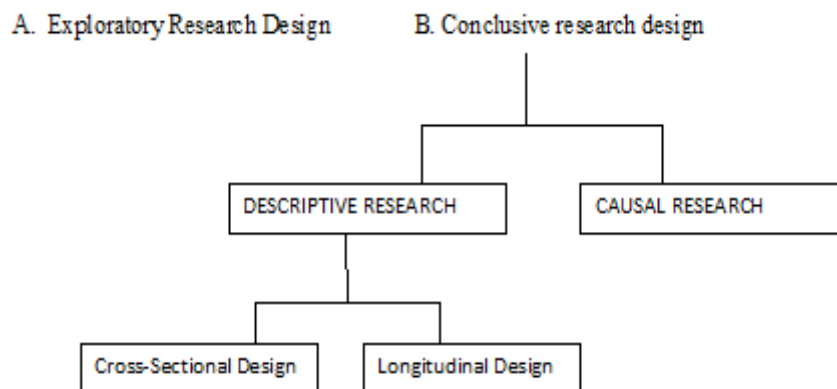
## RESEARCH OBJECTIVES

To comprehend the influence of demographic characteristics (age, gender, income) of Non-purchasers who have positive buying intension if natural products are introduced as eco-friendly variety of their regular buying brands. To understand the product expectation and it's influence on positive buying intention by non-purchasers if natural products are introduced as eco-friendly variety of their regularly buying brands.

## RESEARCH METHODOLOGY

**Research Design**

**Classification of Research Design**



**Exploratory Research Design**

This design has it's primary objective of provision of insight into and comprehension of problem situation confronting the researcher. Research process is flexible and unstructured. Sample is small and non-representative. Analysis of primary data is qualitative. This gives a qualitative understanding of underlying reasons and motivations.

**Descriptive Research Design**

This is a type of conclusive research that has the major objective of description of something usually market characteristics or functions. This quantifies the data and generalizes the results from the sample to the population of interest. The sample size is usually large. This study is used for to describe the characteristics of consumer groups, organizations or market areas, to find how much percentage of specified population exhibit a certain behavior, to make specific predictions such as preferred promotional method, product attributes etc.

**Cross Sectional Design:** Type of research design involving collection of information from any given sample of population elements only once. There are 2 types in this research design Single cross sectional Design and Multiple cross sectional Design.

**Longitudinal Design:** A type of research design involving a fixed sample of population elements that is measured repeatedly. The sample remains the same overtime thus providing a series of pictures that when viewed together portray a vivid illustration of the situation and the changes that are taking place over time

**Causal Research**

A type of conclusive research where the major objective is to obtain evidence of cause and effect relationship. This is used to comprehend which variables are the cause and which variables are the effect of a phenomenon, to determine the nature of relationship between causal variables and effect to be predicted.

## RESEARCH DESIGN ADOPTED BY THE STUDY

This study had adopted **descriptive research design**. It started with a pilot study in south Chennai area for assessment of purchasers of natural products based on results the questionnaire was improved and actual study was taken in Trichy and Chennai region. Majority of objectives of the study are quantitative objectives. Pilot study was done to assess the number of purchasers of green products in market, reasons behind purchase, Non-purchasers reasons for not purchasing with this results questionnaire was refined and main study was conducted. With objectives clearly set for the study, it used large sample size and survey method to gather information from respondents thus descriptive research was adopted for the study.

The main study has quantitative objectives such as proportion of consumers who are aware about green products, demographic details of green product purchasers and non-purchasers, product expectation of non-purchasers, green market adaptation possibility in trichy and Chennai market. It also has qualitative objectives such as reason behind non- purchasers buying intention of green products and non-purchasers willing to buy a green variant if introduced as brand variant of their regular buying brands.

But major objectives are quantitative in nature hence the research design adopted is **descriptive** research design based on research objectives. Under **descriptive research design** this study has **cross-sectional design method** as sample of respondents is drawn from the target population from trichy and south Chennai market and information is obtained from this sample only once.

## SAMPLING METHOD

Two types of sampling method are Probability sampling method and Non-probability sampling method.

**Probability Sampling Method**

In probability sampling method each and every unit of population have an equal and known chance of being selected.

**Non-Probability Sampling**

In non-probability sampling each and every unit of population will not have equal and known chance of being selected. This is judgement based procedure. It can be representative but precision and confidence cannot be obtained.

**Non-Probability Sampling Methods**

- Quota sampling

- Convenience sampling

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- Judgment sampling

- Purposive sampling

Sampling Method adopted for this Study:

**Purposive Sampling**

**This is a Non-Probability Sampling Method which Serves an Objective or Purpose**

The sample is chosen so that a particular research purpose or objective is served and is adequate for it. The sample is typical rather than representative. Purposive sampling is similar to judgement sampling.

The sample for this study is chosen in such a way it should have purchasers of Natural personal care and home care products among the respondents along with non-purchasers to serve the research objectives. The retailers of Natural personal care products and Green Peace organization experts are interviewed and based on their information residences in and around 10 kms range of Natural product retailer is chosen for the study, so the respondents will include purchasers of Natural personal care products to satisfy the research purpose. Thus sampling uses judgment of natural product retailer ,green peace organization expertise, researcher's own observation in the market and then samples are chosen so particular research objective or research purpose is served. Thus sampling method adopted is **Purposive sampling**.

## PRODUCT CATEGORY FOR THE STUDY

This study focuses on natural bathing soap, natural shampoo, natural tooth paste, natural face wash under natural personal care product category. Under natural home care category it focuses on natural detergent, natural surface cleaner. Thus mentioning of natural personal care and natural home care products or green personal care, home care in the entire study means the products mentioned above. The term green or natural or Herbal before personal care, home care products implies same meaning it is eco-friendly personal care and home care products.

## SAMPLE SIZE

A total of **885 respondents had been surveyed for this study from 2 cities**.

**Chennai City:** The sample size surveyed in South Chennai region of Chennai city is 440. Population of Chennai city as per census of 2011 is 46,81,087. Using sample size calculator ([www.surveysystem.com](www.surveysystem.com)) at confidence level of 95%, confidence interval of 5 for the population of 46,81,087 the sample size to be surveyed that will adequately reflect the population is 384. **The sample size surveyed for the study is 440 in south Chennai region including purchasers and non-purchasers.** Thus the sample size will reflect the population in the region.

**Trichy City:** According to government of India 2011 census trichy city population is 8,46,915. Using sample size calculator ([http://www.surveysystem.com/sscalc.htm#two](http://www.surveysystem.com/sscalc.htm#two)) sample size is calculated with 95% confidence level and confidence interval of 5. The sample size arrived at 384. For this **survey a total of 445 respondents including purchasers and non-purchasers were surveyed in trichy city**. Thus sample size adequately reflects the population of trichy city.

## ANALYSIS AND INTERPRETATION

**Relationship between Non-Purchasers Demographic Variables and Buying Intension of Various Natural Products if Introduced as Eco-Friendly Variant of their Regular Buying Brands is Found Out Using Kruskal Wallis Test**

**Hypothesis1:** There is no significant relationship between age and buying intension of various natural products by non-purchasers if introduced as eco-friendly variant of their regular buying brands**.**

**Hypothesis2:** There is no significant relationship between gender and buying intension of various natural products by non-purchasers if introduced as eco-friendly variant of their regular buying brands.

**Hypothesis3:** There is no significant relationship between Income and buying intension of various natural products by non-purchasers if introduced as eco-friendly variant of their regular buying brands.

**Table 1**

| Buying Intension | Mean Rank | | | | Mean Rank | | Mean Rank | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Age Category of Drivers | | | | Gender | | House Hold Income Category of Purchasers | | | | |
| | 18 - 28 | 29 - 38 | 39 - 48 | 49 - 58 | Male | Female | Upto 15000 | 15001-25000 | 25001-35000 | 35001-45000 | Above 45000 |
| Buying intension of tooth paste | 203.98 | 215.79 | 191.53 | 183.79 | 193.06 | 209.82 | 181.77 | 214.31 | 187.84 | 212.45 | 188.05 |
| Buying intension of Bath Soap | 221.28 | 195.08 | 193.26 | 199.78 | 209.54 | 191.52 | 193.91 | 190.97 | 193.68 | 229.80 | 248.59 |
| Buying intension of Detergent | 208.33 | 206.09 | 195.18 | 190.21 | 205.75 | 195.72 | 195.30 | 194.89 | 193.11 | 216.83 | 245.41 |
| Buying intension of surface cleaner | 221.02 | 184.21 | 201.29 | 205.36 | 210.54 | 190.41 | 189.18 | 188.28 | 196.93 | 232.85 | 265.86 |
| Buying intension of shampoo | 218.83 | 195.34 | 197.31 | 191.74 | 206.67 | 194.71 | 189.90 | 187.28 | 206.94 | 225.96 | 258.39 |
| Buying intension of face wash | 224.98 | 177.15 | 208.91 | 193.45 | 204.01 | 197.66 | 192.41 | 189.06 | 202.25 | 216.88 | 267.77 |

**Table 2**

| | Age | | | Gender | | | Income | | |
|---|---|---|---|---|---|---|---|---|---|
| | Chi-Square | df | Asymp. Sig. | Chi-Square | df | Asymp. Sig. | Chi-Square | df | Asymp. Sig. |
| Buying intension of tooth paste | 4.564 | 3 | .207 | 2.371 | 1 | .124 | 7.124 | 4 | .129 |
| Buying intension of Bath Soap | 4.536 | 3 | .209 | 2.911 | 1 | .088 | 11.730 | 4 | .019 |
| Buying intension of Detergent | 1.624 | 3 | .654 | .896 | 1 | .344 | 7.241 | 4 | .124 |
| Buying intension of surface cleaner | 6.458 | 3 | .091 | 3.599 | 1 | .058 | 18.657 | 4 | .001 |
| Buying intension of shampoo | 3.443 | 3 | .328 | 1.260 | 1 | .262 | 14.887 | 4 | .005 |
| Buying intension of face wash | 11.702 | 3 | .008 | .350 | 1 | .554 | 14.617 | 4 | .006 |

**Interpretation**

Hypothesis 1 is accepted as significance is above 0.05 for all natural products except in the case of face-wash. There is no significant relationship between age and buying intension of various natural products by non-purchasers if introduced as eco-friendly variant of their regular buying brands. Non-purchasers age has influence on buying intension of natural face wash only.

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Hypothesis 2 is accepted as significance is above .05 for all natural products. There is no significant relationship between gender and buying intension of various natural products by non-purchasers if introduced as eco-friendly variant of their regular buying brands.

Hypothesis 3 is rejected as significance is less than .05 for majority of natural products. There is significant relationship between Income and buying intension of various natural products. Income of non-purchasers influences buying intension of natural bath saop, natural surface cleaner, natural shampoo and natural face wash. Income of non-purchasers have no influence on buying intension of natural detergent and natural tooth paste.

Among demographic variables **income** has influence on buying intension of natural products majorly, age and gender have no major influence.

**Age:** Age has influence on buying intention of face wash only. 18-28 age group has highest buying intension of face wash if introduced as eco-friendly variant of their regular buying brands.

**Income:** Above Rs.45,000 income group has highest buying intension of bath soap, shampoo, surface cleaner and facewash if introduced as eco-friendly variant of their regular buying brands.

Rs.35001-Rs.45,000 income group ranks second in buying intension of bath soap, shampoo, surface cleaner and face-wash if introduced as eco-friendly variant of their regular buying brands.

As income level increases their is higher buying intention for natural products in the case of bath soap, shampoo, surface cleaner and face-wash product categories.

Using fried-man test it was found out among all product categories **tooth paste** is having maximum buying intention if introduced as eco-friendly variant of non-purchasers regular buying brands.

## 2-I -Relationship between Product Expectation and Buying Intention of Natural Tooth Paste is Found Out Using Multiple Regression

**Null Hypothesis:** There is no significant influence of product purchase reasons on buying intension of tooth paste if introduced as eco-friendly variant of their regular buying brand.

### Table 3: R-Table

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .677[a] | .459 | .445 | .60433 |

### Table 4: Annova Table

| | Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 120.683 | 10 | 12.068 | 33.044 | .000[a] |
| | Residual | 142.435 | 390 | .365 | | |
| | **Total** | **263.117** | **400** | | | |

**Table 5**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| (Constant) | 1.707 | .299 | | 5.706 | .000 |
| Reasons- Eco-friendly saves earth and conserves water | .642 | .045 | .643 | 14.172 | .000 |
| Should yield quick results when compared to normal brand | -.073 | .049 | -.086 | -1.499 | .135 |
| Should solve health problems better than normal brand | .090 | .038 | .099 | 2.388 | .017 |
| should be packed in eco-friendly way that is bio-degradable and offer discount for recycling of package | .019 | .043 | .027 | .434 | .664 |
| Price charged for eco-friendly product should not offer value for money | .024 | .034 | .031 | .724 | .470 |
| Should be promoted with brand ambassdors using sports star or movie star or eminent leaders | -.006 | .034 | -.008 | -.172 | .864 |
| Displaying in retail stores how purchase of these brands is benificial to society and saves mother earth | -.016 | .041 | -.021 | -.382 | .703 |
| Eco-friendly variant should not be made available at many retail stores easily | -.040 | .033 | -.051 | -1.234 | .218 |
| Information on how much pollution or global warming is reduced by my purchase of natural/herbal/eco-friendly variant | -.067 | .042 | -.094 | -1.619 | .106 |
| Proper social recognition and lucky draw prize rewards should not be given for higher purchase | -.015 | .034 | -.021 | -.446 | .656 |

**Interpretation:** ANOVA table shows significance value is less than 0.05, null hypothesis is rejected. At least one of regression co-efficient is significant at non-zero level.

Reasons of *Eco-friendly saves earth and conserves water* and *Should solve health problems better than normal brand* significantly influence buying intension of tooth paste as significance value is less than .05 for these two product expectation.

Overall contribution of the above two reasons towards buying intension of tooth paste is 45.9% (Since $R^2$=0.459).

Product expectation of natural tooth paste is it should be Eco-friendly saves earth, conserve water and should solve health problem better than normal tooth paste brand is majorly expected by non-purchasers in tooth paste product category if it is introduced as eco-friendly variant.

## SUMMARY OF FINDINGS AND CONCLUSIONS

- **A**mong the demographic variables income has major influence on non-purchasers if natural brand is introduced as eco-friendly variant of their regular buying brands. Higher the income level higher the buying intention in case of bath soap, surface cleaner, shampoo and face wash. This is in line with Roberts (1996) review higher and middle income are more likely to engage in pro-environmental consumption**.**

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- Age has influence on only one product category that is on buying intention of face wash only. 18-28 age group has highest buying intension of face wash if introduced as eco-friendly variant of their regular buying brands.

- Product expectation is assessed for tooth paste product category as this product category is having major buying intention among non-purchasers if it is introduced as eco-friendly variant of their regular purchasing brand. The major product expectation is it should be eco-friendly save earth and it should solve health problem better than normal brand.

Non-purchasers of natural products have buying intention on all six product categories if natural product is introduced as eco-friendly variant of their regular purchasing brand. Segmenting the market based on income of non-purchasers and designing the natural variant to be introduced will yield successful results. Eco-friendliness along with health aspect is the expectation on eco-friendly variant to be introduced for non-purchasers.

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