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“A STUDY ON CONSUMER PERCEPTION AND PREFERENCES ON GREEN PRODUCT IN VADODARA, GUJARAT”

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Abstract: This project was undertaken with the objectives to carry out a study of “Consumer Perception and Preferences on Green Product in Vadodara”, this report provide details about the consumer behaviour towards Green products. In the scenario of covid-19, Consumers are becoming more ecologically conscious of purchasing environment friendly products i.e. green products. This research is a descriptive research where Primary data is collected through questionnaire. A sample size of 115 is considered from people/consumers of Vadodara city, Gujarat (India) to come to a conclusion. Thus, we concluded that the consumers do have environment concern with positive intentions to buy green products. The study brings out interesting insight that, though consumer were environmentally concerned and are ready to pay high for green products yet they were not aware as to what constitutes environmentally friendly products. Hence, marketers should more concentrate on increasing awareness of green products in much more effective ways.

Keywords: green products, consumer perception, consumer preference.

1. INTRODUCTION OF THE STUDY

The challenge for today's marketer in the era of globalization is to keep the customers satisfied and even keep natural environment safe. This is because awareness among consumers about environmental issues such as global warming and the impact of environmental pollution is increasing day by day. The need of the time is protecting environment from pollution and it is a buzz word in today's business environment. In the modern market an important strategy of facilitating sustainable development is Green marketing which has emerged as an important concept in India as well as in other parts of the developing and developed world.

Resource depletion, bio-diversity reduction, water pollution, air pollution, especially greenhouse gas emission, severe smog and haze crises, as well as other environmental problems have attracted more and more attention from individuals, enterprises, governments and non-governmental organizations (NGOs) around the world (Gibbs and Deutz, 2005, Giri et al., 2019, Madani and Rasti-Barzoki, 2017, Wang et al., 2016). Due to the deteriorating environment, nowadays more and more consumers become environment-conscious; And they value green product higher than brown product (Bemporad and Baranowski, 2007, Du et al., 2015, European-Commission, 2008, Fahimnia et al., 2015, Yakita and Yamauchi, 2011, Yu et al., 2016), for green product is similar in functions to the conventional brown product but less harmful to the environment and/or human health.

With the soaring consumer environmental awareness (CEA), green products are gaining increasing popularity around the world (Bemporad and Baranowski, 2007, Murali et al., 2018, Nath et al., 2013, Rejikumar, 2016, Varshneya et al., 2017, Zhang and Liu, 2013). A wide range of green products appear in our daily life, such as, organic foods, recyclable apparels, energy-saving appliances, re-chargeable batteries, and new-energy vehicles, and so on. The environmentally aware consumers have a strong preference for the green product and are willing to pay extra for environmentally friendly products (Hong & Guo, 2019). Obviously, the CEA is influencing the consuming behavior of consumers as well as the production behaviour of the manufacturer (Zhang, Wang, & You, 2015). In addition, the production cost of green product is usually higher than the production cost of usually selling products in the market.

Green product is defined in the literature as-

- “Products whose functions or ideas deal with the process of material retrieval, production, sales, utilization and waste treatment available for recycling, reduced pollution and energy saving” - Liu and Wu (2009)
- “Product designed to minimize its environmental impacts during its whole life-cycle. In particular, non-renewable resource use is minimized, toxic materials are avoided and renewable resource use takes place in accordance with their rate of replenishment” - Albino, Balice and Dangelico [2009]
- “Environmental innovations: measures of relevant actors (firms, private households), which: (i) develop new ideas, behaviour, products and processes, apply or introduce them, and; (ii) contribute to a reduction of environmental burdens” – Wagner [2009].

2. LITERATURE REVIEW

1. **Dr. Ashutosh Sandhe¹** in his research paper “The Effect of Consumer Attitude on Purchasing Intention for Organic Products” examines the effect of consumer attitude on organic or eco-friendly paints. Attitude was measured through tri-component model of attitude formation. Data was collected from 300 respondents in the city of Vadodara, Gujarat, India. Respondents were administered a structured questionnaire containing statements measuring attitude in terms of cognitive, affective and conative factors. Responses were collected in the form of a five point Likert scale ranging from “strongly agree” to “strongly disagree”. Consumer attitude and purchasing intention was found to be moderately favourable. The research highlighted the fact that consumers are not aware about the availability of such a product in the market. This is an important finding from the view point of marketing research.
2. **Joshi et.al²** in their research paper on “Green Consumption Behaviour of Consumers’: An Empirical Study with Special Reference to Bharuch-Ankleshwar of Gujarat State” emphasis on concept, and importance of green marketing. Data were collected from 120 respondents and gathered data related to respondent’s awareness and purchase of green products; frequency of shopping green products; place from where shopping of green products made; opinion on selected criteria for green products, recycling of green products, and satisfaction with use of green products. Study reveals that awareness about green products among educated and young generation is more and firm must focus on communicating usefulness of their products in protecting natural environment as well as focus on education of consumers in forming opinion about the price, importance to eco certificates, individual benefits, help of products to protect natural environment.
3. **Dr. Ashutosh Sandhe et.al³** in their descriptive research studies on “Consumers' Attitude towards Organic Food Products in Vadodara – An Exploratory Study” analyses the attitude of people of Vadodara towards organic food products. Attitude was studied by application of the Tri-component Model where three major components of attitude i.e. cognition, affection and conation or purchasing intention was measured and from that the overall attitude was analysed. Based on a sample size

of 200, it was found that the overall attitude for organic food products was favourable and that there was strong positive correlation between all the three components and attitude. Further, reasons for preference of organic food products were also studied along with problems faced in procurement of these products in Vadodara. “Organic food products are good for health” was found to be the most prominent reason for preference of these products.

4. **Ashutosh Sandhe**⁴ in his research paper “Organic Food Versus Conventional Foods: A Comparative Study Of Attitude In Vadodara” he compared the consumer attitude towards organic food products and non-organic in the city of Vadodara, Gujarat, India. By collecting data through a structured questionnaire from 170 respondents selected through stratified random sampling technique, the attitude of consumers was measured towards both the categories. The results were encouraging for organic food products. The overall attitude was found to be positive and people were willing to purchase them. The only issue was price and availability of these products in the local markets. Also, there were some apprehensions regarding the authenticity of them being organic.
5. **Dr. Sabita Mahapatra**⁵ in her research paper “A study on consumers perception for green products: An empirical study from India” conducted a survey across India. A total of 162 Indian consumers responded completed the questionnaire. The present paper made an attempt to understand the factor that influences environment conscious behaviour for green products. The finding of the study would help government to better understand consumers' environment conscious behaviour, for developing effective environmental policies required to reinforce green purchase. Moreover, companies will have insight about how to profile green consumers in India, to develop effective messages that will functionally and emotionally appeal to their target customers.
6. **George M. Chrysoschoidis**⁶ in his Journal has investigated on “Factors Affecting the Decision to Purchase Organic Food” has concluded that in investigating purchases of consumers familiar with organic food products, emphasis must be placed on the psychological and socio-economic factors determining their purchasing attitudes. To this end, the present study is undertaken as an investigative research, based on psychometric methods. Regression analysis is then used to assess the importance of each investigated factor. The most important factors in actual organic food purchases are found to be: familiarity with organic food enhanced by the conception of differences existing between organic and conventional food and the thoughtful way consumers purchase their food products. The increasing variety of organic products and organic certification labels are also important.
7. **Sahar HosseinikhahChoshaly**⁷ in his research study on “Consumer Perception of Green Issues and Intention to Purchase Green Products” has examine consumer's perception towards green issues, to examine factors that influence green purchasing intention and to examine factors related to usage of recycle bags. The respondents in this study comprised of 170 university students. The study reflects that young Malaysian customers displayed positive attitudes towards environmental protection issues and usage of recycling bags. “Perceived environmental responsibility” dimension, recognized as the top predictor of green purchasing intention followed by “Social influence”. The third most important predictor is “Concern for self-image”.
8. **Wilson Kong et.al**⁸ in their research on “The Influence Of Consumers' Perception Of Green Products On Green Purchase Intention” investigated that Green consumerism has increasingly received attention since the increased level of consumer awareness towards green products. Therefore, the aim of this paper had been to examine the influence of consumer perception of green products on green purchase intention. In this study, perception of green products was conceptualized as a multidimensional variable comprised of green corporate perception, eco-label, green advertising, green packaging, and green product value. By using a survey, a total of 159 questionnaires from respondents aged above 18 in Sabah were collected. The findings also revealed that eco-label and green product value made the largest contribution in influencing

green purchase intention among consumers. In contrast, both green advertising and green packaging had no significant impact on consumer intention to purchase green products.

9. **Shamila Nabi Khan et. al⁹** has research on “The Power of Emotional Value: Exploring the Effects of Values on Green Product Consumer Choice Behaviour” using the theory of consumption values, this research proposes to explore the consumer choice behaviour for green products in Pakistan. Functional value (price and quality), social value, conditional value, epistemic value, and emotional value and environmental value were used to study the consumer choice behaviour for green products. It also gauges the extent to which emotional value moderates the impact of other consumption values on green product consumer choice behaviour. Based on a sample of 260 respondents, the results indicate that functional value (price), social value and environmental value have a positive impact on green product consumer choice behaviour, while conditional value and epistemic value have a negative effect. Functional value (quality) and emotional value do not influence green product consumer choice behaviour. As a moderator, emotional value has a significant effect on the role of functional value, social value, conditional value, epistemic value and environmental value. This confirms and significantly adds to the literature of green product consumer choice behaviour in a developing market.

10. **Tan Booi Chen and Lau Teck Chai¹⁰** has research on “Attitude towards the Environment and Green Products: Consumers’ Perspective” and its objective was 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. Result from the independent sample t-test shows that there were no significant differences between gender in their environmental attitudes and attitudes on green products. The rotated factor matrix validated the underlying dimensions of environmental attitudes into three major dimensions (environmental protection, government’s role, and personal norm). Results from the multiple linear regression analysis revealed that consumer attitudes on the government’s role and their personal norm towards the environment contributed significantly to their attitude on green product. Further investigation revealed that personal norm was the most important contributor to the attitude towards green product. However, environmental protection did not contribute significantly to consumers’ attitudes on green product.

3. OBJECTIVES OF THE STUDY

1. To gather consumers knowledge and awareness about green Products in Vadodara.
2. To study and analyse consumers emotions for Green Products in Vadodara.
3. To study the purchasing intention for Green Products in Vadodara.
4. To study the overall attitude of consumers towards Green Products in Vadodara.
5. To study if age influences the buying behaviour of the consumers for Green Products in Vadodara.

4. RESEARCH METHODOLOGY

1.1 Research Design

Primary research and secondary research.

Primary research will be descriptive survey research through questionnaire.

Secondary research will be considering different research papers and articles relevant to research.

1.2 Source of Data

They can be grouped as:

i) Primary source of data

Primary data source from online survey through mailing Google form as well as offline survey by approaching buyers aged 18 to 60.

ii) Secondary source of data

Secondary data sources from Google search, Google scholar, Sci-hub, Research gate, Magazines, Newspapers etc.

1.3. Data Collection Method

Data is gathered using Primary survey method through questionnaire.

1.4. Population

The study population size is 100 respondents, who are falling in the age group of 18 to 60 of Vadodara (Gujarat), India.

1.5. Sampling Method

Probability sampling method – simple random sampling

1.6. Sampling Frame

Buyers of Vadodara city aged 18 to 60 through email via google form and telephonic survey.

1.7. Data Collection Instrument

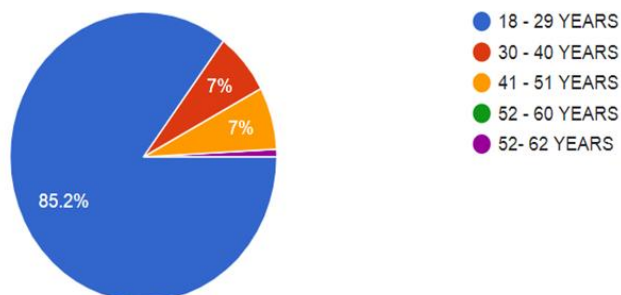
Questionnaire including 5 point Likert scale, close ended questions like rating scale/ ranking scale and open ended question at the end.

5. DATA ANALYSIS

1. Age

AGE

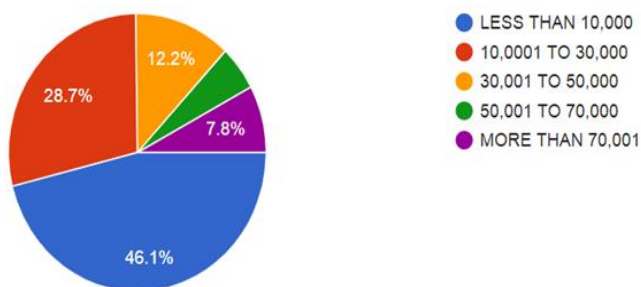
115 responses



2. Monthly Income

MONTHLY INCOME

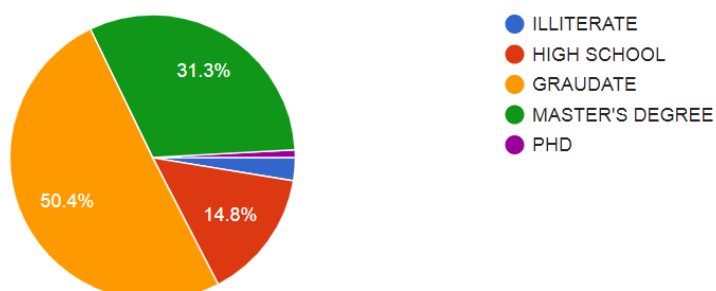
115 responses



3. Education Level

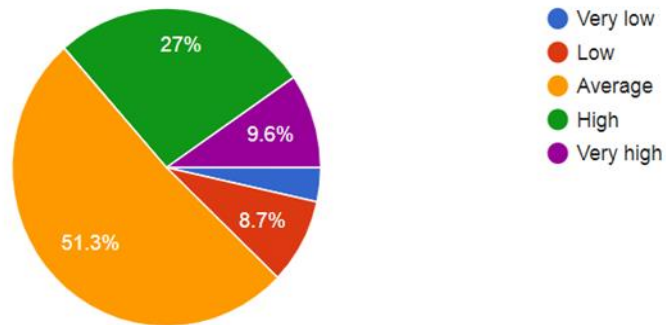
EDUCATION LEVEL

115 responses

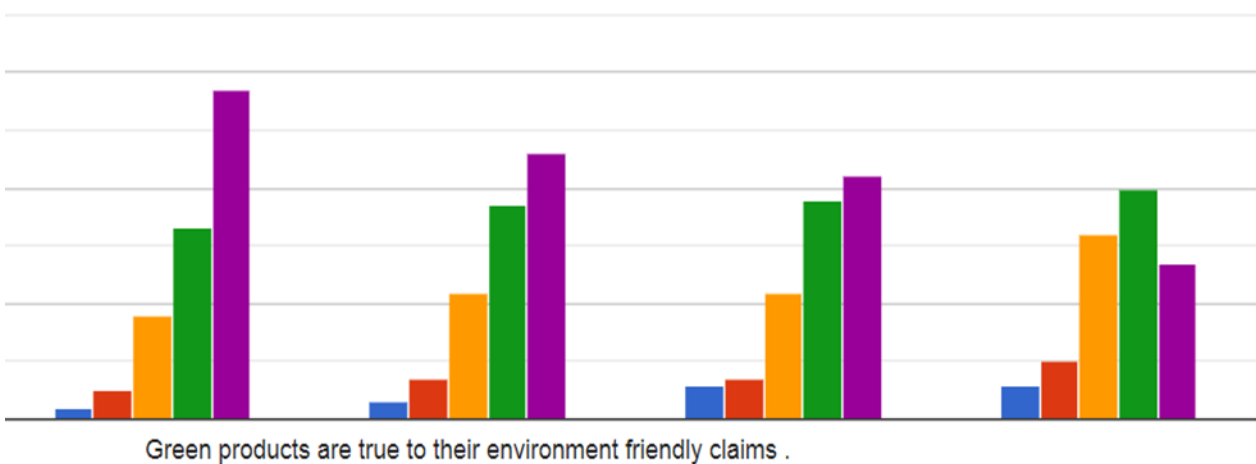
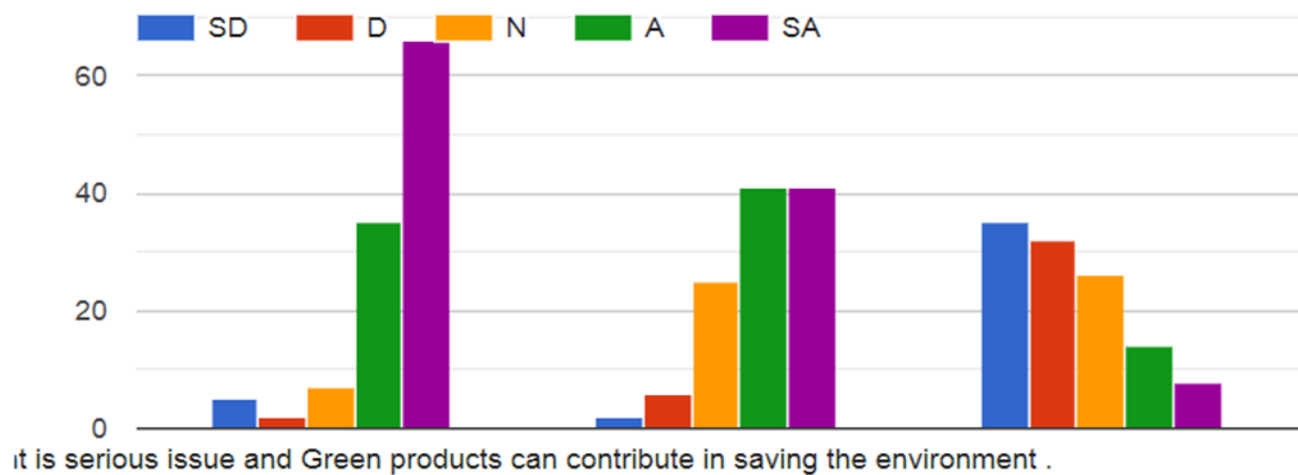


4. Level of Awareness about Green Products

115 responses

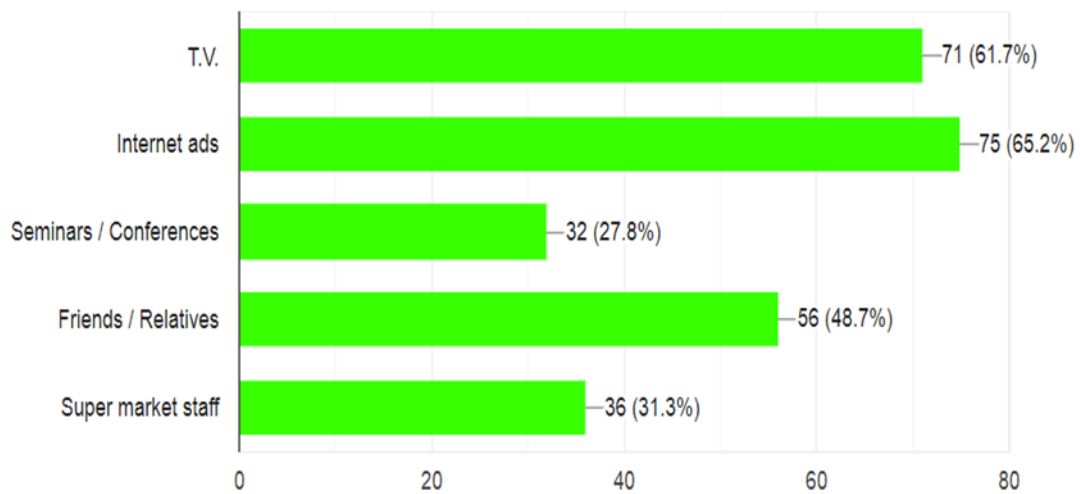


5. Level of Agreement or Disagreement with Each of the Statements on a Five Point Scale



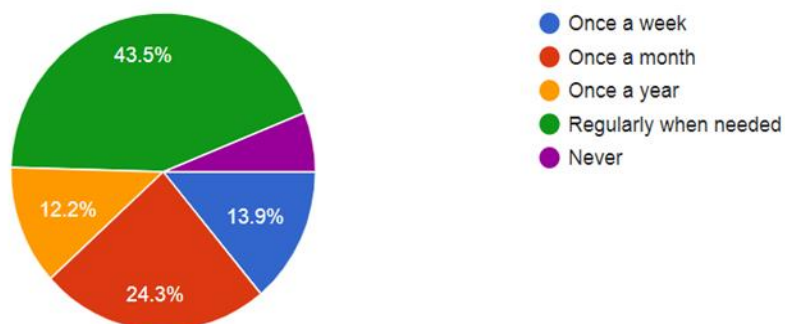
6. Sources of Awareness for their Effectiveness in Providing Information

115 responses

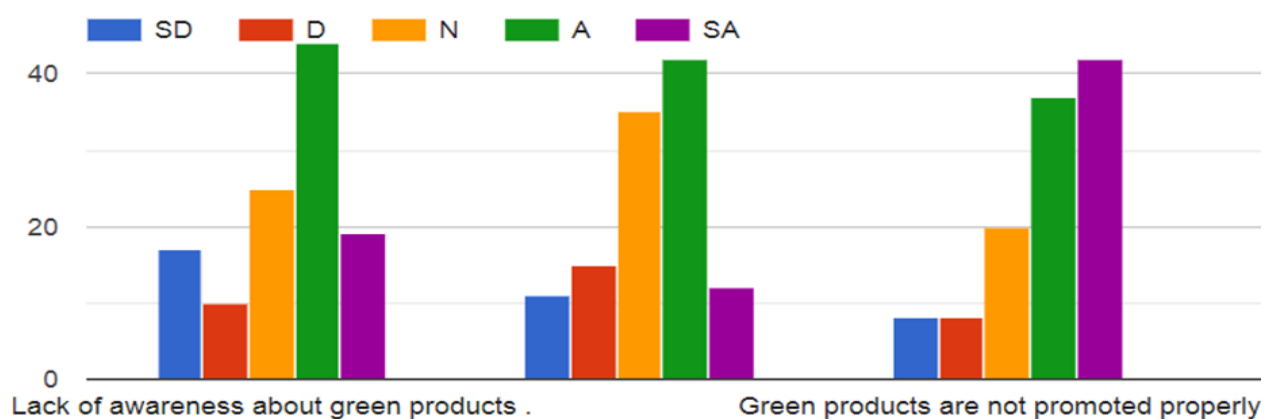


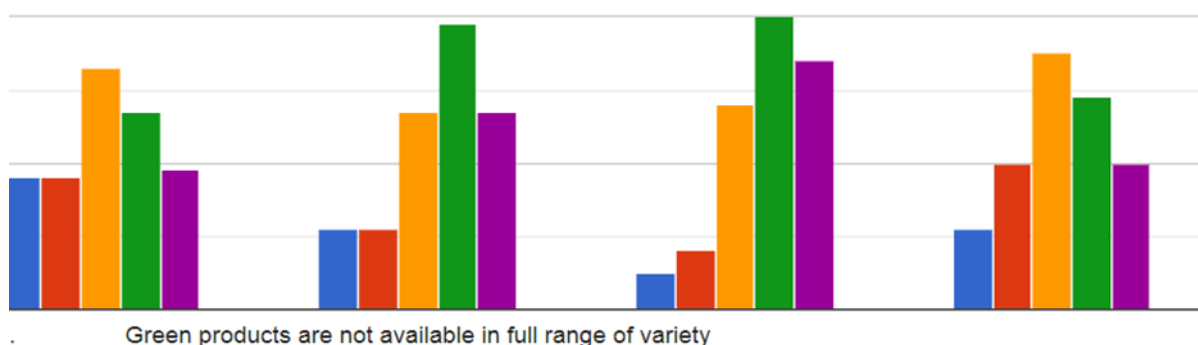
7. Frequency to Buy Green Products

115 responses



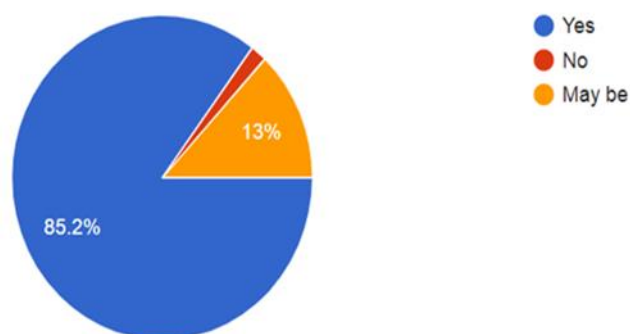
8. Rating Reasons for Non-Usage





9. If You Don't Use Green Products, Will You Consider Using Green Products In The Future?

115 responses



5. RESULTS AND FINDINGS

1. Green products are more familiar term to the age group of 18-29 as awareness among youngster regarding the green is high comparatively.
2. There is no prominent effect of income on the amount of purchase of green products.
3. Education played a vital role in awaking people regarding green products and its importance.
4. People are on average level on awareness of the green products.
5. People prefer green products over non-green products but lack confidence on green products performance, which create confusion in consumption of the green product among people.
6. People feel a sense of satisfaction using green products and are ready to pay extra price for the betterment of environment as green products are expensive than non-green products as per the conclusion.
7. Effective means of awareness regarding green products are internet ads and television.
8. People prefer purchasing green products regularly when needed.
9. Green products are not easily available in the shopping outlets and not available in full range of variety.
10. Majority (85.2%) of the non- green product consumers agreed to adapt green products in future.

6. CONCLUSION

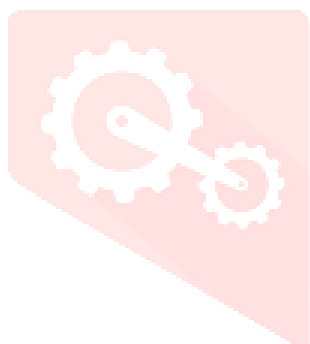
From the above analysis and findings, it can be conclude that respondents are on moderate positive level regarding the knowledge on importance of green products in their live and to the environment.

The findings of the study reveal that 87.9% of the respondents agreed that green products play a vital role in saving the environment and 69.5% of the respondents experienced sense of satisfaction while consuming green products. Majority of the respondents are ready to pay more price than the prices of non-green products for the betterment. Thus, study conclude that the consumers does not have environment concern only, but also have positive and high intentions to buy green products. The study brings out interesting insight that, though consumers were environmentally concerned and ready to pay high, yet they were not aware as to what constitutes environmentally friendly products. Hence, marketers need to consider efforts that are required to convert the environment concern into environmental consumption behaviour.

The following steps can be taken into consideration to encourage green products in the market -

- Availability of the green products can encourage the consumers to shift from non-green products to green products.
- The marketing communication should focus more on green products awareness programs to reach out to the section of the society who are least aware of importance of adaptation of green products in near future.
- Ensuring green products are pure to its best for the consumers to gather trust by providing green product certification marks in the product to build trust within the buyers.
- Eliminating huge gap between the green products and non-green products to encourage purchase.

The consumer attitude towards green products has shown a positive change in the current covid-19 pandemic situation; hence people are more thoughtful towards healthy lifestyle and environment.



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