

A Study to Identify the factors Influencing Consumer Behavior towards Eco-Friendly Products

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ABSTRACT

Green Marketing is the change eventually required in our society and for that “Green” is essential nowadays. Today companies, government and consumers all know the value of the environment and they have started contributing to safeguard it and embracing sustainable development with three poles i.e. social, economic and environmental. It is very important and crucial to make modifications in our living or survival and to preserve the planet's existence for us.. And opportunistic marketing of today may work wonders to bring about this transformation. It is necessary to determine the demands and desires of customers as well as the variables that have the greatest effect. This research paper researcher discuss the influencing factors and their effect on consumer’s buying action towards green marketing. According to this paper there are ten such identified factors namely perception, eco-labels, demographics measure, environmental advertising, eco-brands, awareness, green product, premium price, green promotions and finally buying behaviour, mainly in five factors. Each factor is important for the marketer. They should know which factor to concentrate on and how. Customers were surveyed for this purpose using a standardised questionnaire to identify such factors. “Likert Five Point Scale” scaling technique, Chi-Square test is used for the purpose of analysing the data and interpretation has been given on that basis. This study challenges the notion that customer preparedness for environmentally friendly products and sustainable development are significantly correlated. Each factor is briefly described in this study.

Keywords: Green Price, Consumer Behaviour, Green Marketing, Eco-brands, Green Advertising, Green Product, Eco-labels Green Price and Sustainable Development.

I. INTRODUCTION

Currently an issue that is much talked about on the Planet is environmental or ecological safety. Environmental concern has gained speedy attention in the business and also in the social environment (Gupta et al., 2013). Everyone in the world is aware about the threats like scarcity of resources given by nature, global warming, ozone depletion, pollution, melting of iceberg, etc. Environmental threats are somewhat related with production or would say linked up with business activities, everyone knows this now. Successful marketing entails seeing such trends and positioning the goods to appeal to consumers globally or specifically (Maheshwari, 2014).

Previously organizations were working as the primary objective of “profit maximization” today trend changed and now companies move towards societal concern as well (Boztepe, 2012), which makes the evolution of Green Marketing in picture. Green Marketing works both with fulfilling the objective of the companies simultaneously with going green (Ghosal, I et al. 2022). It is not just a marketing strategy but in-depth and careful analysis of consumer conscious behaviour.

Companies nowadays are attempting to educate customers about the advantages of turning green. The green marketing strategies that marketers have adopted include using environmental themes in their business with Eco-brands, Eco-labels, and environmental advertising. According to Delafrooz et al. (2014), these marketing tactics are essential for influencing customer behaviour and encouraging the purchase of environmentally friendly products.

In the present day, there is a heightened collective concern for safeguarding the natural environment. This concern is shared by various corporations and consumers alike. With the increasing awareness of environmental issues and climate change, businesses have also taken steps to modify their practices in an effort to reduce the negative environmental impact of their products. The primary focus now revolves around the promotion of "green" and eco-friendly products, which play a pivotal role in fostering sustainable development. Consumers have become more mindful of factors such as the depletion of natural resources, global warming, and shifts in global weather patterns. In response to this, marketers are concentrating on the creation of energy-efficient appliances, organic foods, and products that leave a minimal ecological footprint while also being

recyclable. Environmental safety has become a significant challenge in today's world. Green marketing represents an approach to achieving sustainable development, with "sustainability" denoting practices that are both ecologically and socially responsible and economically viable. The strategies employed in green marketing can have a substantial impact on both consumers and marketers, but it requires patience for long-term results.

II. LITERATURE REVIEW

In her 2014 study, Maheshwari pointed out that environmental awareness is on the rise worldwide. However, in countries like India, consumers are still in the early stages of developing an understanding of green marketing. According to her research, green marketing has two main aspects: first, it emphasizes the importance of adopting environmentally friendly practices, and second, it involves conveying green messages to create awareness among consumers. Maheshwari also highlighted the fact that every product has some degree of impact on the environment; there are no products on the market that have a purely positive environmental impact. The key disparity exists between consumers' behaviors and their beliefs. Even when consumers are aware of the availability of green products, they often hesitate to purchase them due to their higher price. In her study, a significant proportion of the respondents preferred to buy well-known green products available in the market (Ghosal, I and Chatterjee, D. 2014).

Delafrooz et al. (2014) and Pahari et al. (2023) in his study have emphasized on recent green strategies adopted and which have focused on packaging and labelling. The variables which impact the consumers' action behaviour are psychological, and socio-cultural. How Eco-brand, Eco-labels and environmental advertising impact consumers' perception is the main concern now.

Boztepe (2012) in his paper, He discusses the relationship among green promotions, green product, environmental awareness, green price, and green buying behaviour. According to the paper, male consumers are more affected by green price, environmental awareness, green promotions; product features whereas female only goes with promotion.

Saini (2013) in her research paper said that those products and services which are not green but are presented as green are called green washing. There is a difference between "green" and "eco-friendly". A product may be sourced responsibly but it is not necessarily organic. According to the study done by her, 25% of the consumers prefer eco-friendly products.

In a thesis by Daria and Sara (2011) the influence of eco-labels on consumer buying behaviour in particular the bakery industry is discussed. They argued that eco-labels do have influence on consumer buying behaviour but it is very difficult to make this statement for the bakery industry as there is inadequate advertising and people are not able to get information about such products.

Agyeman (2014) argued that there is a positive relationship between the factors and consumer buying behaviour for green products. He said that quality and price of the product and environmental concerns play a vital role when it comes to actual purchase of the green products. He recommended that green marketers should make strategies after the proper understanding of the segment market and plan marketing mix strategies accordingly.

Anvar and Venter (2014) conducted a study on generation in South Africa and found that the things which influence buying behaviour and attitude for green products are social influence, price and environmental awareness level of the young Generation.

III. RESEARCH DESIGN AND METHODOLOGY

Nature of present research is descriptive; Data is collected with secondary as well as the primary collection methods. The hypotheses have been formulated accordingly after the formulation of the research problem. Primary data were collected through online structured Questionnaires. There are ten such identified Factors namely perception, eco-labels, demographics measure, environmental advertising, eco-brands, awareness, green product, premium price, green promotions and finally buying behaviour. Each factor is important for the marketer. They should know which factor to concentrate more and how. For this a survey was conducted in the form of a structured questionnaire among consumers to identify such factors. "Likert Five Point Scale" scaling technique and Chi-Square test is used for the purpose of analysing the data and interpretation has been given on that basis.

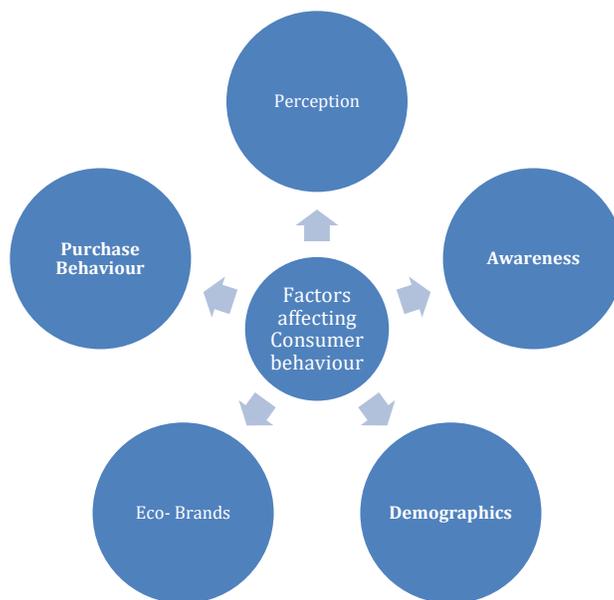


Figure 1 Consumer’s Influencing Factors on Green Marketing

I Objectives of study

- To identify or analyze the factors affecting consumer’s purchasing intention.
- To evaluate such factors of consumer intention.

II Hypothesis Formulated

H_0 – “Influencing factors of Green Products and Practises” does significantly affect the “Purchase Intention” of consumers.

$H_0: p_A = p_B$

H_a – Influencing factors of Green Product and practises” does not significantly affect the “Purchase intention” of consumers.

$H_a: p_A \neq .50, p_B \neq .50$

$H_a: p_A \neq p_B$

Category	Hypothesized Proportion	Observed	Expected
Have no information about green product.	0.25	46.8	20.6
Effect the cost of living (premium price)	0.25	15.2	20.6
Hard to find in store(less availability)	0.25	3.2	20.6
No Product is entirely green. So what’s the point!	0.25	35.2	20.6
Total	100	103	103

Table 1 chi-square values

$\chi^2 (4, N=103) = 5.30; p \geq 0.05$

Thus, the null hypothesis is agreed upon. The intention to acquire green products and practises is significantly impacted.

IV. DATA ANALYSIS AND INTERPRETATION

In the research survey, respondents were asked what influenced their thoughts and opinion about green marketing practices. There are ten such identified Factors namely perception, eco-labels, demographics measure, environmental advertising, eco-brands, awareness, green product, premium price, green promotions and buying behaviour. These factors were considered and evaluated through a set of five key measures, employing both the Chi-square analysis and a Scaling technique employing a Likert Scale. These measures aimed to assess the factors that influence consumer behavior in the context of environmentally friendly practices.

Factor 1. Perception

Eco-friendly Product	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Score	1	2	3	4	5	
Are good for environment	0	0	2	14	87	103
%	0	0	1.99	13.5	84.4	100
Are healthy	0	0	4	3	96	103
%	0	0	3.88	2.91	93.2	100
Have good quality performance conventional product	0	0	3	6	94	103
%	0	0	2.91	5.82	91.26	100
Have good taste and smell	69	24	8	2	0	103
%	66.99	23.3	7.76	1.9	0	100
Are well promoted.	5	93	5	0	0	103
%	4.85	90.2	4.85	0	0	100
Are accessible and available in the market	5	98	0	0	0	103
%	4.85	95.14	0	0	0	100
It makes me feel different from everyone else.	5	9	87	2	0	103
%	4.85	8.73	84.46	1.9	0	100

Table 2. Perception of consumer

The respondents were asked to express their opinions on seven statements that influenced their intention to make environmentally friendly purchases. This assessment was conducted using a Likert five-point scale as a scaling technique. The factors considered included the following: Eco-friendly Products, Promotion, Environmental Benefits, Quality/Performance compared to conventional products, Health Benefits, Taste and Smell, Accessibility and Availability in the market, and the feeling of being distinct from others.

Table 4 indicates that a significant number of respondents expressed agreement with the stated opinions regarding green practices. The majority of respondents rated their agreement as either "Agree" or "Strongly Agree," with a high percentage of responses falling into these categories. In this scale, a rating of 5 corresponds to "Strongly Agree," while a rating of 1 represents "Strongly Disagree."

Factor 2. Purchase Behaviour

What do you do in any of the following:	Never	Sometime	Frequently	Total
I read label before buying to see if contents are environmentally safe		98	0	103
%	4.85	95.14	0	100
I use biodegradable soaps and detergents.	84	19	0	103
%	81.55	18.44	0	100
Price of green product affects my purchase behaviour.	73	20	10	103
%	70.83	19.41	9.07	100
I always look for green product in the given product category.	8	82	13	103
%	7.7	79.61	12.62	100
I buy products whose package can be reuse.	3	98	2	103
%	2.91	95.14	1.9	100
I carry own bag to supermarkets	7	96	0	103
%	6.79	93.20	0	100
Make personal sacrifices towards encouraging green product purchases.	22	64	17	103
%	21.35	62.13	16.50	100
I purchase product which create less pollution.	5	59	39	103
%	4.85	57.28	37.86	100
I inquire about the product which consumes less energy.	17	73	13	103
%	16.50	70.87	12.62	100
I don't mind in paying extra price for bulbs which consumes less energy.	87	16	0	103
	84.46	15.53	0	100

Table 3. Consumer's purchase behaviour on Green Practices

The respondents' actions were analyzed using Likert's Scaling Technique, and their behaviors were categorized into three main categories: Sometimes, Never, and Frequently. Out of the 103 respondents, the findings are as follows:

- 98% of the respondents sometimes read labels to check if the contents are environmentally safe.
- 84% of the respondents never use soaps and detergents that are biodegradable.
- 73% of the respondents never perceive green products as being priced at a premium.

- 82% of the respondents sometimes opt for green products within their given category.
- 98% of the respondents do not frequently buy products with green packaging.
- 96% of the respondents use their own carry bags when shopping at supermarkets.
- 64% of the respondents are willing to make occasional sacrifices to promote green actions.
- 87% of the respondents are willing to pay a premium price for energy-efficient bulbs.

Table 4's analysis indicates that the majority of respondents are willing to pay for green products. However, it also suggests that there may be a lack of awareness in the market, as not all respondents are consistently adopting green behaviors.

Factor 3. Awareness Measure

Which of the following describes you the most likely to adopt green products

	I want to preserve the earth	When government puts subsidy on green products	I like eco-friendly products	I feel trendy when I purchase eco-friendly products	When I start earning well (six figure salary)	Total
No of Respondents	12	6	68	10	7	103
%	11.65	5.82	66.01	9.7	6.79	100

Table 4. Awareness towards green.

The third factor examined in the study is the level of awareness among consumers and at what point or stage they are inclined to transition to green behavior. According to Table 6, out of the 103 respondents:90 respondents have a preference for eco-friendly products, and they view themselves as trendsetters in adopting environmentally friendly practices. They are consistently motivated to contribute to saving the Earth through their actions.13 respondents are willing to move towards green actions when the government provides incentives in the form of subsidies or when they reach a certain level of income, such as earning a six-figure salary.

Factor 4. Demographic Measure

Gender	No. of respondent	Percentage %
Female	67	65.04
Male	36	34.95

Table 5. Demographic Profile

Above table 5 shows the gender division involved in study. Approx. one third i.e. 67 respondents involved in study are female and remaining 36 male category. Demographic information was also included to be sure that the sample elements were well representative of the population. All care was taken in selecting samples and also sure the true representatives of consumers who have recently gone with the green action.

Factor 5. Awareness

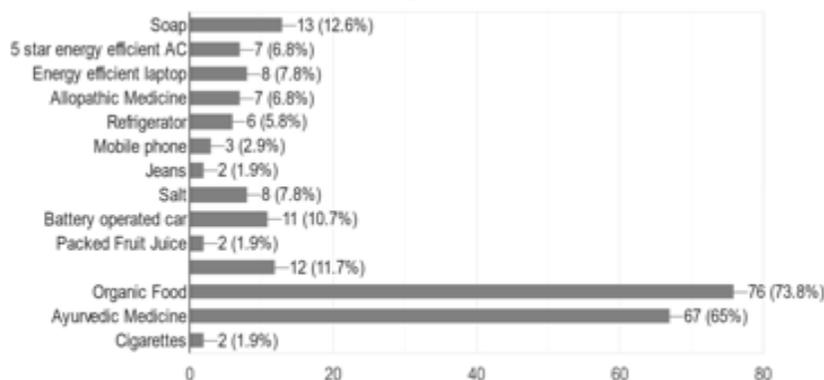


Figure 2. Product which you feel is green

In this survey researchers identified that the majority of respondents believe Ayurveda medicine and soap, organic food belongs to green category with the opinion 76 people where as a small no i.e. 27 do not believe that people product like jeans, battery cars, etc. are for save environment.

Education

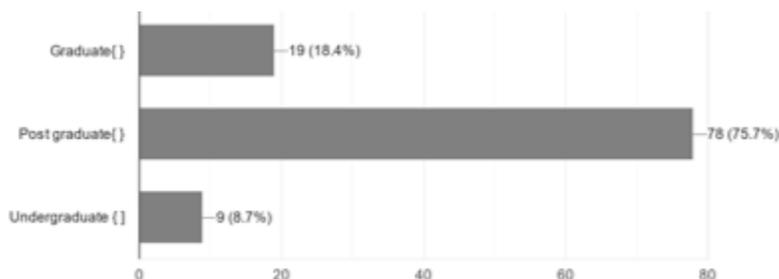


Figure 3. Level of knowledge in respondent

The sample for the study comprises individuals with diverse educational backgrounds. Specifically:75.7% of the respondents post-graduation. 18.4% are graduates. and only 8.7% of undergraduate individuals.

This distribution suggests that the study includes a significant proportion of respondents with post-graduate and graduate qualifications, indicating a well-educated sample for the research.

Geographical division

Location	No. of respondent	%
Urban	92	90.2
Rural	11	10.8

Table 5. Geographic Profile of Respondents

Whereas table 5 shows geographically division of the sample included in study, 90.2% of respondents belong to an urban location whereas 11 respondents i.e. 10.8% are from rural location.

IV. FINDINGS AND SUGGESTIONS

In this research study, the analysed unit was the individual consumer. Questionnaire was employed in this survey to collect information about the topic from the respondents. Collected information through respondents is used for further analysis and verification of research hypotheses. The study assessed the attitude and behavior of respondents within the age between 20 to 50 using Likert's Scale Technique. The Chi-square test was employed to analyze the relationship between the factors and the respondents' attitudes toward green behavior. The aim was to determine if there was a significant difference in the perception and practices related to green products that influence consumer purchasing behavior.

The statistical analysis, with a Chi-square value of $\chi^2(4, N=103) = 5.30$ and a p-value of ≥ 0.05 , suggests that the perception and practices about green products does not significantly affect the purchase behavior of consumers. Therefore, in this case, the researcher accepts the null hypothesis and rejects the alternative hypothesis. In other words, the study did not find a significant relationship between the perception and practices of green products and consumer purchase actions in this age group.

Variable	value	p-value
Barrier(perception)	5.30	0.05

Table6. Chi-square analysis

The results indicate that factors such as age, location, gender, and income do not have a significant impact on consumer behavior in the context of green actions. However, the study identified several other factors that do influence the attitude and behavior of consumers regarding green actions. These factors include

1. Efforts for Developing the Environment: Consumers' willingness to actively participate in efforts aimed at improving and preserving the environment.
2. Availability of Eco-Friendly Products: The extent to which consumers have access to environmentally friendly products in the market.
3. Controlling Pollution: The importance consumers place on practices that reduce or control pollution in their purchasing decisions.
4. Proper Usage and Maintenance: Consumers' consideration of the proper use and maintenance of products to reduce their environmental impact.
5. Feelings About Green Products: Consumers' emotional or psychological connection to green products and their overall perception of such products.
6. Lifestyle Aspect: How green actions fit into consumers' overall lifestyle and values.
7. Barriers in Green Behavior Adoption: The challenges or obstacles that consumers may encounter when trying to adopt green behaviors.
8. These identified factors play a significant role in shaping consumer attitudes and behaviors in relation to green actions, highlighting the complex interplay of various elements in influencing environmental consciousness and decision-making.

V. CONCLUSION

The research had the primary goal of identifying and analyzing the factors that influence consumer behavior in the context of green actions. Ten major factors were identified, and the opinions of respondents were collected using a Likert Five Point Scale for six main measures related to thoughts on green marketing. The Chi-square test was employed to assess the validity of the research hypotheses.

The first objective of the research involved identifying these factors in green marketing, which was accomplished through a comprehensive review of existing literature. The literature review highlighted various factors that play a crucial role in influencing green marketing. These factors are of significant importance to marketers, as they need to understand which factors to focus on and how to effectively address them. The second objective of the study was to evaluate all the identified factors using statistical tools and determine whether the perception of green products and practices significantly affects

consumer purchasing behavior. The research findings suggest that consumers often feel confused when making decisions related to environmental protection, as it can be challenging to discern green products from conventional ones. There may be a lack of complete trust in green marketing strategies among consumers. Therefore, it is essential for firms to ensure that they educate and raise awareness among consumers about environmentally friendly products to bridge this gap between perception and practice.

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