

To study awareness of green environment and eco friendly products on consumers in Jabalpur, Madhya Pradesh

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Abstract

This study is done to find out awareness regarding green marketing and ecofriendly product and to know whether gender wise they possess same awareness or not. Because of global warming and climatic changes companies ,In today's scenario companies are spending huge amount of money in developing sustainable products .It is very necessary to know what consumers think about sustainability in current scenario. If some consumers are not aware about it why they are not.

The current study concluded that Consumers in Jabalpur are aware regarding green marketing and ecofriendly product but gender wise males are more aware in comparison to females. Also according to consumers ecofriendly products are not well promoted and also not accessible in markets. So it's a big challenge for marketers to come out with campaign that can attract consumers.

Keywords: Ecofriendly product, Awareness, Green environment, Sustainability, Climatic changes

Introduction

Initially the products which were developed in market were not concerned with environment and then it somehow use to harm the environment and were very dangerous to society as well then somehow in 1980 and 1990's the concern regarding the environment came into existence and then people thought that product must be designed in a way that they does not harm the environment and are ecofriendly, because health as well as environment both are important Then they thought of developing such product and they gave the name to products as Green products. Also the concept of green products came because everywhere there are some or the other people who are concerned with the environment and they wanted to contribute something to it. They aim to these products was that they must not harm the environment.

If we talk about today's scenario then almost every organization is working towards developing sustainability and towards green products

World Economic forum 50th Annual meeting (Jan 21-24 2020) "Stakeholder for cohesive and sustainable world" in which main story of Annual meeting was climate change action. Klaus Schwab's pre-meeting letter called on all Forum Members and Partners to tackle the urgent issue of climate change by committing to net-zero carbon emissions by 2050 or earlier. And according to Global risk report(2020) it is being said that climate threat is in the top five risks.

Also if we talk about the number of individuals and their willing to purchase green product and to live greener life has increased, but whether they purchase green product or not is still question.

Research Problem

Climatic changes are happening all the world Companies are spending huge amount in making advertisement and ecofriendly product As a researcher we have to identify whether consumers are aware or not regarding such campaigns and what are their preferences regarding ecofriendly product.

Research Objective

- 1) To understand awareness regarding green marketing and ecofriendly products on consumer.
- 2) To understand whether consumers are willing to spend more money on ecofriendly products or not

HYPOTHESIS

H0: There is no significant relationship between gender and green marketing and ecofriendly product

H1: There is significant relationship between gender and green marketing and ecofriendly product

H0: There is no significant correlation between willing to spend more on ecofriendly products and gender

H1: There is significant correlation between willing to spend more on ecofriendly products and gender

Literature Review

The Elusive Green consumer - Harvard Business Review -2019 –Revealed that in a survey consumers want to buy 65% brands that are associated with sustainability but when it comes to purchase only 26% of them actually proceed to buy. Also it has been said that some of the men in world make relation of sustainability with femininity.

Green Marketing: A Study of Consumers' Attitude towards Environment Friendly Products- Cherian and Jacob 2012.Revealed that there is a need for green marketing, and consumer's attitude and behavior must be shifted towards environment friendly products. Research adopted is qualitative research .Conclusions have been given by knowing only consumers attitude

Consumers Awareness and Perception towards Green Products: A Study of Youngsters in India Sanjeev Kumar RadhaGarg Anita Makkar -2012 This study revealed that Male consumers are more aware in comparison to female regarding green products and consider it while shopping. Descriptive research based on primary data based on questionnaire. Study mainly used frequency, mean, cross tabulation, Chi Square Test and One way ANOVA. The data has been collected from youngsters of different areas of NCR.

Awareness of green marketing and its influence on buying behavior on consumers- Dr. Shruti P Mahweshwari -2014- Identified that consumers are not enough told about green marketing and about green products and she suggested that there is greater need for marketing tools and brand that can help consumers to know well about green and sustainable products. Secondary and primary data considered, mean, standard Deviation, coefficient of variation. Paper focuses on consumer belief and attitude on environment protection and their purchasing behavior of ecofriendly product in Indore region

A Study on current status of Green Marketing in North India- Dr. Bhagwan Singh, Sachin Kumar-2015-The genders in North India possess similar awareness about green marketing,1020 respondents selected randomly. Limited to consumers in North(Himachal Pradesh,Harayana,J&K) India only.

A Study on Consumer's Perception towards ecofriendly products in Ahmedabad- Preeti Pillai 2016 that revealed Consumers who were surveyed were aware about environment degradation but young and educated consumers were only considered questionnaire was designed and circulated through e mail. And Consumer only above age 21 considered

An empirical study on consumer behavior towards Green marketing in India -Vikas Kumar Sinha2020.The study reveals that green advertising and marketing is gaining importance in India and consumer's pickup green advertising because of ecofriendly blessings. Exploratory research. Information is collected from newspaper, Journals, magazine, conference.Only Impact of Labelling, packaging and branding, ecofriendly picture is observed on consumer behavior

Literature gap

- Many consumers are aware about sustainable products but very few of them put it in action to buy its products(HBR)
- And why not all consumers are aware about green and sustainable product
- Some research say there no relation between gender and awareness but some research say it is .2012(Sanjeev Kumar RadhaGarg Anita Makkar) and 2015(Dr. Bhagwan Singh, Sachin Kumar-2015) researches. [Reference- Literature review]

RESEARCH METHODOLOGY

In order to investigate the objectives of the research the primary data collection has been done with the help of questionnaire, which consisted of 18 questions. Questions related to awareness regarding green marketing and ecofriendly product, Willingness to purchase, barriers in preferring ecofriendly product (Likert scale 1 to 5), sources of awareness, questions related to purchase of eco-friendly product in past and questions related to purchase of eco-friendly product in future and whether consumers read the details which is mentioned in product package were asked With the help of such questions various findings can be done and suggested.

Sampling design

Among 191 respondents which have been randomly selected as a sample population from the Jabalpur region on the basis of literacy rate according to census 2020. This study is limited to Jabalpur region consumers only.

Statistical Measures

The software used for Data analysis is SPSS and for charts Power BI. The statistical methods used in analysis were- Correlation to know whether there is any relation between green marketing and ecofriendly products gender wise and Cross tabulation table is used to depict how many male and females are aware green marketing and ecofriendly product.

Chi square test is used to that gender wise there is any relation among males and females in willingness to spend or not.

Reliability

Reliability Statistics

Table1

Cronbach's Alpha	N of Items
.825	14

Case Processing Summary

		N	%
Cases	Valid	191	100.0
	Excluded ^a	0	.0
	Total	191	100.0

a. Listwise deletion based on all variables in the procedure.

A questionnaire was employed to measure different underlying constructs. Table 1 shows the scale had a high level of internal consistency as determined by Cronbach Alpha of .825(High)

Data Analysis

The table below deals with the basic demographic characteristics of respondents including age, gender, educational qualification, Household income of the respondents included in this research project.

Table 2-Demographic characteristics of respondents

Item	Number	Percent
Age		
20-30	98	51.3
30-40	32	16.8
40-50	38	19.9
50 above	23	12
Gender		
Male-	93	48.7
Female-	98	51.3
Educational qualification		
Undergraduate	9	
Graduate	128	67
Postgraduate	54	4.7
Household income		28.3
0-20000	19	9.9
20000-50000	35	18.3
50000-70000	81	42.4
Above 70000	56	29.3

Table 2 shows that sample respondents are of very young age .Approximately 51.3% of respondents are within the age group of 20-30 and remaining percentage of age group is between 16.8 to 12 %. It also shows that there is higher percentage of graduates 67% and 4.7% is lowest for undergraduates, postgraduates are 54%. Also household income between 50000-70000 is considered to be highest which has 42.2% and 0-20000 is considered to be lowest having 9.9% and respondent Above 70000 is only 29.3%.

H0: There is no significant relationship between gender and green marketing and ecofriendly product

H1: There is significant relationship between gender and green marketing and ecofriendly product

Table 3

		Are you aware of green marketing and ecofriendly products?			Total
		NO	MAYBE	YES	
Gender	FEMALE	50	13	35	98
	MALE	5	10	78	93
Total		55	23	113	191

The table 3 provides the information regarding the awareness of green marketing and ecofriendly product and gender. This table will help us to know how many males and females are aware regarding the green marketing and ecofriendly product also we will get to know the exact numbers of males and females

Total 191 responses of the respondents has been taken and total number of Females were 98 and males were 93, Three option were given to them regarding awareness Yes, No and Maybe .From above table we can understand that 50 females and 5 males are not aware regarding green marketing and ecofriendly product while 13 females and 10 males maybe aware while 35 females and 78 males are aware regarding green marketing ecofriendly product.

Table 4 Correlations

		Gender	Are you aware of green marketing and ecofriendly products?
Gender	Pearson Correlation	1	.528**
	Sig. (2-tailed)		.000
	N	191	191
Are you aware of green marketing and ecofriendly products?	Pearson Correlation	.528**	1
	Sig. (2-tailed)	.000	
	N	191	191

** . Correlation is significant at the 0.01 level (2-tailed).

The table 4 is formed to know whether there is a relationship that exists between gender and level of their awareness with respect to ecofriendly products. And Pearson Correlation test is applied between them. The result we can see that there is a relation between gender, green marketing and ecofriendly products. Correlation coefficients whose magnitude are between 0.9 and 1.0 indicate variables which can be considered very highly correlated. Correlation coefficients whose magnitude are between 0.7 and 0.9 indicate variables which can be considered highly correlated. Correlation coefficients whose magnitude are between 0.5 and 0.7 indicate variables which can be considered moderately correlated. Correlation coefficients whose magnitude are between 0.3 and 0.5 indicate variables which have a low correlation. Correlation coefficients whose magnitude are less than 0.3 have little if any (linear) correlation.

Result

From the above table we can see that the value of correlation is above 0.5, hence we can conclude that there is a moderate relation between gender and green marketing and ecofriendly products. Also, our value of $\text{Sig.}(P) < .05$, so our test is significant, hence we reject the Null hypothesis and accept the Alternate hypothesis, which says that there is a significant relationship between gender and green marketing and ecofriendly products.

H₀: There is no significant correlation between willingness to spend more on ecofriendly products and gender

H₁: There is a significant correlation between willingness to spend more on ecofriendly products and gender

Cross tabulation

Table 5

		If ecofriendly products are little costlier than ordinary products are you willing to spend more on it?		Total
		No	Yes	
Gender	Female	32	66	98
	Male	10	83	93
Total		42	149	191

Table 5 is formed to know the relationship between the genders and their willingness to spend more or not for ecofriendly products.

The table above shows that 32 females and 10 males doesn't want to spend more on ecofriendly product while 66 females and 83 males are willing to spend more

Table 6 Chi Square Test

	Value	df	Assymp.Sig(2- sided)
Pearson Chi Square	13.342	1	.000
N of Valid Cases	191		

Now for knowing relationship between categorical variables whether there is any relation in genders in willingness to spend more on ecofriendly product Chi square is applied in above table 6

Result -Since our value of (Sig) P is <0.05 we observe that there is statistically significance and reject our Null hypothesis and accept Alternate hypothesis and conclude that there significant correlation between willing to spend more on ecofriendly products and gender

Table 7 - sources of awareness for their effectiveness in providing information regarding green/ecofriendly products

		Responses	
		N	Percent
Q1 ^a	Television	137	26.1%
	Magazine	78	14.9%
	Internet Ads	94	17.9%
	Friends/relatives	86	16.4%
	Newspaper	89	17.0%
	Super market staff	40	7.6%
Total		524	100.0%

Table 8 products/services which all you want to like to purchase/take

		Responses	
		N	Percent
Q1 ^a	Rechargeable battery	151	19.2%
	Solar heater	137	17.4%
	Recyclable jeans	88	11.2%
	Steel bottles	95	12.1%
	Solar charger	128	16.3%
	Apps launched by various banks for payments and other digital services	62	7.9%
	Shoes made from recyclable materials	70	8.9%
	Jute bags	55	7.0%
	Total	786	100.0%

Table 8 shows the various products which the respondents in Jabalpur region want to purchase/take and this helps us to know about their preferences like rechargeable battery having 19.2% as the highest and solar heater having 17.4% while solar charger having 16.3%

Likert Score Calculation

Now for the various Likert questions which are related to barriers in buying ecofriendly product, green marketing and level of awareness about following dimensions of green/ecofriendly product. The cumulative scores of all the statements have been found out by assigning values as follows- Strongly agree=2 ,agree=1,Neutal=0,Disagree=-1,Strongly disagree=-2.And the responses have been multiplied by the above given values For e.g. Table Statement 1- Having no information about product has 5 response which is multiplied by -2

and similarly for disagree response(31) is multiplied by -1 and all of them added to find cumulative score. Now the cumulative score of 88 which has arrived is divided by total number of responses which is 191 and it gives us result as 0.46 this is known as out Likert score.

Now we do similarly for others also.

Table9-What are the various options which stop you from buying ecofriendly products

Statement	Strongly Disagree (-2)	Disagree (-1)	Neutral (0)	Agree (1)	Strongly agree (2)	Cumulative Score	Likert score
Have no or very less information about it.	5	31	49	83	23	88	0.46
Difficult to be available in stores.	3	17	55	83	33	126	0.65
Not easy to use or adopt	4	51	61	56	20	37	0.19
Physical appearance not good	4	50	67	50	20	32	0.16
There is no fully green product	8	38	59	62	24	26	0.29

Table 9 shows that Difficult to be available in store and Having no or very less information about product are the top two factors which stops consumers from buying ecofriendly products. These having the top Likert score of 0.65 and 0.46 respectively

Table 10

Statement	Strongly Disagree (-2)	Disagree (-1)	Neutral (0)	Agree (1)	Strongly agree (2)	Cumulative Score	Likert score
Are good For nature	1	2	32	126	30	182	0.95
Healthy for humans	1	4	41	124	21	160	0.83

Promoted very well	10	42	67	47	25	35	0.18
Are accessible in market	1	46	73	40	31	54	0.28
Have good quality	2	24	68	68	29	98	0.51

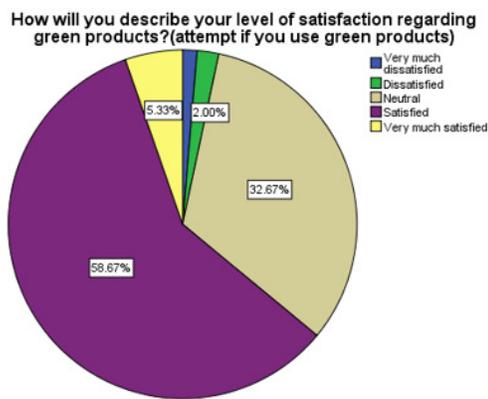
From table 10 we can observe that respondents are aware that ecofriendly product are good for nature as it has Likert score of 0.95 and also they are aware that it is healthy and ecofriendly products have good quality as these have high scores. But respondents believe that ecofriendly products are not promoted very well (Likert score=0.18) also these products are not accessible in market as it has very low Likert score of 0.28

Table 11-How would you describe your level of awareness about following dimensions of green/ecofriendly product

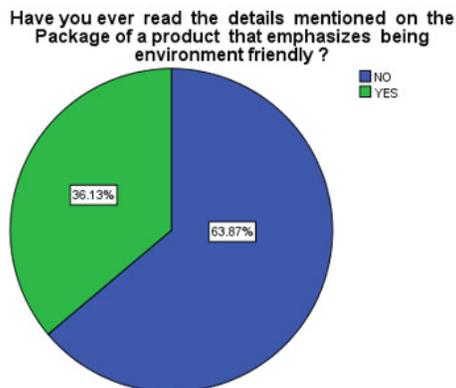
Statement	Very low (-2)	Low (-1)	Average (0)	High (1)	Very High (2)	Cumulative score	Likert score
I am aware of the benefit of green products for the health	10	28	46	80	27	86	0.45
I am aware of the benefits of green products for environment	8	32	41	81	29	91	0.47
I am aware of various symbols and identifier which declare the product as green	12	34	62	44	39	64	0.33
I am aware of various brands offering green product	15	34	65	41	36	49	0.25

From table 11 we observe that statement number 2- I am aware of the benefits of green products for environment and statement number 1 I am aware of the benefits of green product for health is having the highest Likert score which is 0.47 and 0.45 respectively while statement number 3 and 4 shows that consumers awareness is very low for symbols of green product and brands offering green product.

PIE CHART 2



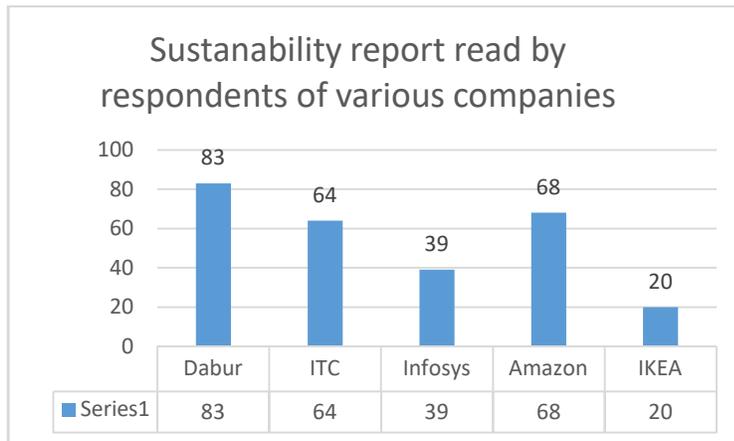
Respondent were ask to give their level of satisfaction regarding green/ecofriendly product only if they have used before then from above pie chart we can observe that 58.67% of the consumers were satisfied with the use of ecofriendly product while 32.67% of the consumers showed neutral behavior towards ecofriendly product while 5.33% of consumers were very much satisfied while 2% consumers were dissatisfied and very much dissatisfied



PIE CHART 3

Respondents were asked to tell whether while buying any product do they read the details mentioned on the package of a product and from above pie chart 3 we observe that only 36.13% consumers read the details and large portion is on not reading any details that is 63.87%

Column Chart 4



The chart 4 above shows the data regarding sustainability report which has been read by respondents .As we can observe 83 of the respondents has read Dabur report,64 of respondents read ITC and 39 of them read Infosys while 68 of them read Amazon while 20 is the lowest which is report of IKEA.

Findings and suggestions

Following are the major findings

1. Also it has been found that 63.87% of the consumers don't even read details that are mentioned on the package
2. In Jabalpur region 46.07% Males and 25.13% of the Females were found to be aware regarding green marketing and ecofriendly product.
3. Also 43.45 % of males and 34.55% of females are ready to spend more ecofriendly product
4. Consumers are least aware from the different brands which offer ecofriendly product.
5. Consumers very well know that ecofriendly products are good for environment as well as for health.
6. Television and Internet are the most effectiveness in providing information regarding green/ecofriendly products
7. Rechargeable battery , solar heater ,solar charger are the most preferred choice by consumers

From suggestions point of view we can think of making the consumers well aware regarding different brands of the same product which is available in the market. Also we can think of reducing the price of the ecofriendly product. As all consumers are not willing to spend more.

Government can help in providing ecofriendly product in much discounted price as well as in offers with other products and can promote ecofriendly products.

Conclusion

There are evidences in research say there no relation between gender and awareness but some say it is (2012- Sanjeev Kumar, RadhaGarg ,AnitaMakkar and 2015 Dr. Bhagwan Singh, Sachin Kumar)

But current research suggests that among genders Males are the one which posses higher percentage of awareness regarding green marketing and ecofriendly product awareness.

Since IKEA and Infosys sustainability reports are the least read report so company need to do more marketing about its sustainability for knowing about them.

Limitation

This study is limited to consumers in Jabalpur region only and only age of above 20 years is considered. Research is done with considering awareness in relation to gender and willing to spend.

Further Research Directions

The further research can be done by considering other demographic variables also such as age and income and by considering other regions nearby to Jabalpur and only retailers and manufacturers of ecofriendly product can be considered as respondents, this will help us to know how much awareness exist in retailers and manufacturers and what they think regarding it.

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