ROLE OF GREEN PRODUCTS IN SUSTAINABLE DEVELOPMENT – A STUDY WITH SPECIAL REFERENCE TO CHENNAI CITY

Dr.P.Pandian
Assistant Professor & Head, Department Of Bank Management, S.A.College of Arts & Science, Chennai.

Abstract
The normal life of humans and other living things on the planet is in danger due to significant climate change; green marketing is not only the newest and most popular current marketing but also a crucial ethical marketing strategy. Our consumption, which results in the depletion of natural resources, deforestation, and the extinction of other living things on Earth, is the primary cause of climate change and global warming. Unknowingly or deliberately, this kind of production and consumption has persisted for decades, but after receiving the appropriate warning and alert, producers and consumers have begun to switch to eco-friendly products because they are more environmentally conscious and save lives. The idea of the "Green Market" arises as a result of climate change and global warming becoming pushup factors. The study is descriptive in nature and includes structured questionnaires and interviews to explore hypotheses. Primary data is gathered from a sample size of 171 respondents using a structured questionnaire. The study's respondents are the consumers of eco-friendly goods in Chennai, Tamilnadu, India. The hypothesis was tested using Likert scale questions with five-scaling. The study found that positive purchase intentions and consumer satisfaction with green products were significantly influenced by green marketing strategies and enhance sustainable development.

Keywords: Green Marketing, Global Warming.

Introduction

The concept Green marketing is not only the latest and popular trending marketing but also an important ethical marketing as the major climatic changes has threatening the normal life of human beings and other living things on the earth. The major reason for this climate change and global warming is our consumption which leads to the natural resources depletion, deforestation, and eradication of life of other living features on the earth. Knowingly or unknowingly this type of production and consumption continues for decades, but after getting a proper warning and alert, the producer and consumers have started to changing for eco-friendly products as these products more concerned on environment and save human lives. The climate change and the global warming become pushup factors and thus the concept 'Green Market' emerges.

Review of Literature

In the study taken by **Chatterjee (2009),** the brand extension evaluation, purchase intent, and parent brand evaluation were measured. The study concluded that consumers are more likely to purchase green extensions of products with high perceived environmental impact and that current consumers prefer green line extensions to green category extensions.

Saleem & Abideen (2011), revealed that positive relationship between emotional response, attitudinal response and consumer buying behavior resulted in the purchase of those products that the consumers are emotionally attached to.

Mourad & Ahmed (2012) researched to study the main factors affecting the green brand reference in the telecom industry in Egypt. A four-dimension construct of green brand preference was developed: green brand image, green satisfaction, green trust, and green awareness. It was found that consumers

tend to disagree that they are aware of environmental promotions or that they recognize the meaning of environmental slogans and labels for their preferred brand.

Richards (2013) The results showed that there is evidence linking environmental enthusiasm with consumer scepticism of both general and green advertising. It indicated that environmental enthusiasts are often more sceptical of both forms of advertising, with non-enthusiasts Remaining more neutral. Consumers value green products and brands that are trustworthy, affordable, healthy and environmentally beneficial.

Research Methodology
Objectives of the study
The purpose of this research work is to identify the perception and satisfaction of the customers who are buying green products. The research work made an attempt to find how the customers are identifying the green products and how age is influencing in identification of green products. Further the study wants to identify whether marital status is an influencing factor in customer satisfaction.

Research Hypothesis
H1: There is a significant difference in customer satisfaction of green products and green marketing among the male and female customers
H2: There is a significant difference in customer satisfaction of green products and green marketing among the different age group of customers
H3: There is a significant difference in customer satisfaction of green products and green marketing among customers with different education qualification
H4: There is a significant difference in customer satisfaction of green products and green marketing among customers in different marital status

Sample and Questionnaire Design
The population in the research work comprises of the customers who are buying green products in the Chennai region. The sample size of the study is 171. The customers of the green products become the respondents. The data were collected through structured questionnaire comprising of three parts, the first is of personal details, second part is consisting of the statement to find out the ways of identifying the green products, and third part is consisting the statement to measure the customer satisfaction. The responses were fetched on a five-point Likert scale ranging from '1-strongly disagree' to '5-strongly agree'.

Data Analysis and Interpretation
The data accumulated from the primary source was subject to various statistical tools for verification and interpretations. SPSS was primarily used for data analysis. The Chi Square, t-test and ANOVA were carried out to draw the inferences from the collected responses. Correlation was used to understand the relationship amongst variables representing green marketing elements.

General Profile of Respondents
The respondents represent people who are employed, pursuing higher education and homemakers as they represent the largest demographics in Kathmandu. The general profile of respondents is mentioned in the table below:

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Table 1: Summary of Demographic Variables

Demographic variables		Frequency	Percentage (%)
Gender	Male	86	50.3
	Female	85	49.7
	Total	**171**	**100.0**
Age	Below 20 years	35	20.5
	Between 20-40 years	78	45.6
	Above 40 years	58	33.9
	Total	**171**	**100.0**
Qualification	Up to 12th standard	22	12.9
	One degree	103	60.2
	More than one degree	46	26.9
	Total	**171**	**100.0**
Marital Status	Single	78	45.6
	Married	93	54.4
	Total	**171**	**100.0**

Source: Primary Data

The customers who are showing their interest towards green products have observed and requested to be the respondents. Out of total sample 171 respondents, male and female are almost equally distributed. Majority around 46% of the respondents are aged between 20 and 40 years. With regard to qualification of the respondents, around 60% of them are with one degree. Around 54% of the respondents are married.

ANOVA test is applied to analyse how the green products is being identified by consumers. The results are as follows:

ANOVA: Age of the Respondents and Its Impact on Identification of Green Products

Table 2: Age And Identification of Green Products						
		Sum of Squares	df	Mean Square	F	Sig.
STANDARIZATION	Between Groups	9.084	2	4.542	5.078	.007
	Within Groups	150.261	168	.894		
	Total	159.345	170			
PROOF OF MEDICAL TEST	Between Groups	107.666	2	53.833	35.311	.000
	Within Groups	256.124	168	1.525		
	Total	363.789	170			
REFERED BY AUTHENTIC AGENCY	Between Groups	7.748	2	3.874	3.638	.028
	Within Groups	178.884	168	1.065		
	Total	186.632	170			
INGRDENTS	Between Groups	31.327	2	15.664	13.650	.000
	Within Groups	192.778	168	1.147		
	Total	224.105	170			

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OWN/OTHERS EXPERIENCE	Between Groups	24.178	2	12.089	24.663	.000
	Within Groups	82.348	168	.490		
	Total	106.526	170			

There is a statistically significant difference between the means of the different age group of the respondents and the green product identification.

ANOVA: Marital Status of the Respondents and Its Impact on Customer Satisfaction

Table 3: Marital Status and Customer Satisfaction

		Sum of Squares	Df	Mean Square	F	Sig.
Feeling Proud To Be A Part of Environmental Care	Between Groups	.020	1	.020	.029	.866
	Within Groups	119.991	169	.710		
	Total	120.012	170			
It Took Cares of My Health	Between Groups	.057	1	.057	.066	.798
	Within Groups	148.024	169	.876		
	Total	148.082	170			
Gives Pleasure of Socially Responsible Person	Between Groups	4.114	1	4.114	5.432	.021
	Within Groups	127.991	169	.757		
	Total	132.105	170			
I Am Saving Earth	Between Groups	.529	1	.529	.393	.531
	Within Groups	227.261	169	1.345		
	Total	227.789	170			
I Am Saving My Next Generation From Environment	Between Groups	.205	1	.205	.261	.610
	Within Groups	132.427	169	.784		
	Total	132.632	170			
Enjoying The Pleasure of My Grand Parents Life Style	Between Groups	3.930	1	3.930	3.377	.068
	Within Groups	196.713	169	1.164		
	Total	200.643	170			

There is no statistically significant difference between the single and married in satisfaction of buying and using green products.

Hypothesis Testing
Chi Square Test & Correlation: Impact of Demographic Profile of Customers on Customer Satisfaction of Green Products and Green Marketing

Table 4: Demographic Factor and Customer Satisfaction

	Value	df	Asymp. Sig. (2-sided)
Gender * Customer Satisfaction			
Pearson Chi-Square	15.124[a]	4	.004
Pearson's R	.018		.692[c]
Age * Customer Satisfaction			
Pearson Chi-Square	7.154[a]	4	.128
Pearson's R	-.081		.068[c]
Education Qualification * Customer Satisfaction			
Pearson Chi-Square	3.502[a]	4	.478
Pearson's R	-.060		.174[c]
Marital Status * Customer Satisfaction			
Pearson Chi-Square	31.092[a]	4	.000
Pearson's R	-.184		.000[c]

The above table shows the results of Chi-square test for whether there is any association between the demographic profile of the respondents and the satisfaction towards green products. The chi square value is 15.124 and the significant value is 0.004 which is less than 0.05 and hence the gender is significant to customer satisfaction of green products and green marketing. Hence the alternate hypothesis is accepted and null hypothesis is rejected. It can be concluded that there is association between gender and customer satisfaction of green products and green marketing. The correlation value (R) is 0.018 shows that there is a positive correlation between gender and customer satisfaction towards green products.

While testing the marital status and customer satisfaction, the table shows that the chi square value is 15.124 and the significant value is 0.000 which is less than 0.05 and hence the marital status is significant to customer satisfaction of green products and green marketing. Hence the alternate hypothesis is accepted and null hypothesis is rejected. It can be concluded that there is association between marital status and customer satisfaction of green products and green marketing.

Findings
1. From this study, it is identified both male and female are equally contributing for green marketing.
2. From the one-way ANOVA test, it is identified that age is an influencing factor in the green product identification.
3. It is also found that marital status is an influencing factor in the customer satisfaction towards green products and green marketing.
4. From the correlation test, it is understood that there is a positive correlation between age, gender, education qualification and marital status & the customer satisfaction of green products.

Suggestions
1. The general profile such as age, marital status, education qualification and the age of the customers are an influencing factor in customers' satisfaction of green products in Chennai city hence it is advised the marketer of the green products to select the mode of

communication that improves the customers' understanding and perception considering the heterogeneous group.

2. The availability of green products must be ensured by the marketers
3. The price of green products is to reduced as it is costlier compared to non green products
4. The innovation is to be applied in green products
5. Environment care among customer is the primary factor which influences buyer behaviour towards green products and hence it is the duty of the marketers to create awareness.
6. There is a correlation between satisfaction and demographic factors hence the changing needs and requirements of all the customers are to be analysed often.

Conclusion

While environmental issues continue to affect human activities, they are now regarded with great concern by society. Most companies have started using the environmentally friendly sustainable development framework known as green marketing and most organizations have recognized green products. Marketing managers will benefit from green marketing. Consequently, green marketing is a tool that many companies are now using to increase their competitive advantage as people who are currently very concerned about environmental issues. In the time that green marketing is applied, the companies must meet the needs and desires of the consumers. Consumers want to consider themselves as green-compliant businesses and are willing to pay more for a greener way of life

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