Factors Influencing Customer's Perception Regarding Green Marketing: A study on Meerut District

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Abstract

Purpose: *This study, search for the factors influencing the customer's perception regarding green marketing of Meerut district of Uttar Pradesh. In this study factors explored to understand the customer's perception while making the purchase of green products.*

Design/ Approach: *This study used a sample of 271 respondents (both male and female) of different age group. Method of sampling was simple random sampling. Questionnaire and interview method were used as a primary source. Data was analysed and interpreted with the help of factor analysis (Exploratory Factor Analysis) and other descriptive statistics through SPSS (version 24).*

Findings: *Green products are getting more and more importance in different segments. Factors such as social reference, environmental concern, pricing and green advertisement have a significant impact on the perception of customers regarding green marketing residing in Meerut district.*

Limitations: *The study is confined to the sample collected from only Meerut district of Uttar Pradesh. Therefore, the results neither generalized and nor represent workers in other parts of the state and country.*

Implications: *The study has valuable implications for the industries and enterprises. Businesses can consider the effectiveness of factor influencing customer perception while doing the marketing regarding green products.*

Originality: *The factors such as social reference, environmental concern, pricing and green advertisement can derive into a device that encourages industries towards green marketing.*

Key Words: *Social Reference, Environmental Concern, Pricing, Green Advertisement and Green Marketing.*

1. INTRODUCTION

Today, the environment has emerged as an important issue for individuals, groups, societies, governments, in addition to business organizations. The resources of the earth are limited to satisfy unlimited desires of human. In this context, it has become so much important for the individuals and societies around the globe to have a concern for the environment. This in turn changed the market and decision regarding purchases. The social concern towards the environment has affected the market players. Therefore, environmental concern is getting more and more focused and eco-marketing or green marketing approaches are attaining good response from all the dimensions of the society. However, the views related to green marketing is not universal it differs from person to person and from one country to another country.

Though the word "green" means different things to different people in different countries, it has been used in the present scenario in the sense of Green Marketing i.e., protecting the natural world around us. When used in conjunction with marketing, it indicates the marketing of such products and ideas that help in protecting the environment or do less damage to the earth. Green marketing concept and environmental laws have been come into actuality and in real practice. Moreover, consumer satisfaction along with environment protection is the major concern for any business. Although more and more business are adopting green marketing strategies and various techniques and the whole world is working on green marketing but still there are ambiguities regarding green marketing and there is no clear cut or sound proof definition of what exactly the green marketing.

In the words of **Peattie (1995)** green marketing is "the holistic management process responsible for identifying and satisfying the requirements of customers and society, in a profitable and sustainable way". **Polonsky (1994)** defines Green or environmental marketing as "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".

Hence, green marketing is becoming an important factor deciding competitiveness of market offerings. Strategies assimilated to start broad level activities, such as product innovation, production process modifications, sustainable packaging and transforming advertising that is related to green marketing.

2. LITERATURE REVIEW

Ngyuen-Viet, B (2022) explored the effect of mix of green marketing on equity related to customer in Vietnam. The interview method was adopted to collect the data from 870 respondents who purchased milk-products which are plant based from milk store, supermarkets and convenience stores in Vietnam. The data of the study was analysed through Structural Equation Modelling. On the basis of findings, it is concluded that green marketing mix tools affected the equity creation of customer in a positive manner. Further, the analysis explored the casual order in green brand equity dimensions in the context in Vietnam. This study showed the role of generated variables through the defined methods of Structural Modeling.

Martins, A. (2021) examined the impact of green marketing on perceived small and medium enterprise profitability. The data was collected from 400 respondents which are SME owners/ managers in Ghana through cross-sectional survey design. The data analyzed through correlation,

descriptive statistics by using SPSS. On the basis of study, it is concluded that various measurements of green marketing have a positive effect on SMEs profitability. Further, purchase behaviour of green marketing mediates the relationship between perceived SMEs profitability and green marketing dimensions. The profitability increased of the firms working in the SMEs sector of Ghana, Africa.

Anitha, P. & Vijai,C. (2020) evaluated the perception and attitude of the consumer towards green product and marketing. The primary data of the study were gathered through a structured interview. The sample size of the study was 520 respondents collected from Bangalore City. Percentage, mean, chi-square and T-test were used to analyse the data in SPSS software. On the basis of findings, it is concluded that there is awareness among consumers towards green product and green marketing. Further, there is an association between gender, occupation and awareness.

Chahal, Hardeep et al. (2014) studied the sphere of green marketing construct of SMEs operating in the economy of India. The census method was adopted to collect data from 152 owners of electrical industries which are SMEs in Jammu district. The variable explored in the study were related to energy conservation and green innovation. On the basis of findings, it is concluded that there are several dimensions such as, supply chain; policy initiatives, green strategic policy initiative has positive impacts on the performance of firms.

Eric Siu-wa chan (2013) examined the perception of hotel customers regarding green marketing strategies of hotels. The primary data of the study were collected through questionnaires. The data were analyzed through EFA, t-tests and ANOVA. The factors derived were related partnership and credibility of green marketing. On the basis of findings, it is concluded that those products which are associated with the green initiatives and moreover, they are having higher prices are preferred by the customers on the grounds of society's attachments and emotional experience. Further, there is an association among the green marketing strategies and its life cycle and customer's emotional experience.

Bhatia, Mayank & Jain, Amit (2013) explored the consumer perception towards green marketing products and practices in India. The primary data of the study were gathered through a structured questionnaire. Mean, standard deviation, Cronbach's alpha, regression were applied through SPSS Software. On the basis of study, it is concluded that all green values, perception related to green products, practices and the awareness with reference to solemnity of marketing companies in the direction of green marketing positively significant the effect on consumer attitude to purchase and prefer green products to predictable products.

Gaikwad, Anuradha & Ingavale, Deepa (2011) studied the willingness and awareness of the consumers to purchase green products. The primary data of the study were collected through survey method from 100 respondents of Kolhapur. The secondary data of the study were gathered from various sources. The data of the study was analysed through cross-tabulation in SPSS Software. On the basis of findings, it is concluded that 60% of the respondents are aware of green products and there is no relationship between educational qualification, income and occupation regarding awareness of green products. Further, consumers are unwilling to purchase expensive green products even they have the preference for products.

Ham, Sunny & Lee, Seoki (2011) examined the practices of green marketing in the restaurant industry. The sample of the study was 53 US public restaurant companies. The findings of the study concluded that only 11 companies were found to be related in the US to the public

restaurant following at least 1 green practices. Further, among 11 selected companies, 4 listed companies follow 10 or more green practices, 4 listed companies follow 6 to 9 green practices and rest 3 companies follow less than the 5 green practices.

3. RESEARCH GAP

Many studies in India and abroad reveal that now marketers, consumers, government and other agency become more aware and anxious about the environment. As the countries are advancing and various developments took place which on the other hand leads to environmental degradation. So, it's the alarming time to become alert and conscious and required to take relevant steps towards green marketing activities. However, very few studies were there concerning towards the influencing factors of customer perception focusing on Meerut district.

4. OBJECTIVE OF THE STUDY

To identify the factors influencing customer perception regarding green marketing.

5. HYPOTHESIS

H1: There are factors influencing customer perception regarding green marketing.

6. RESEARCH METHODOLOGY

To study and investigate the research objectives, hypothesis was tested and analyzed. The primary data was collected through a questionnaire which contains the questions based on demographic and green marketing variables. The simple random sampling design was used to collect the data. The sampling unit for the study was the consumers of Meerut district of Uttar Pradesh. The total number of respondents was 300 out of that only 271 were found suitable for the study. Statistical methods for the study were: mean, standard deviation, percentage, frequency and EFA that was used to reduce the number of variables.

7. DATA ANALYSIS AND INTERPRETATION

The survey data were analysed using SPSS version 24. All the questionnaire items were numerically coded to facilitate the analysis of the data collected.

Table 1: Demographic Profile

	Gender	Age	Education	Marital Status	Monthly Household Income
Valid	271	271	271	271	271
N Missing	13	12	4	0	0
Mean	1.4700	2.4533	2.4900	1.4167	2.8267
Std. Deviation	.49993	1.27275	.82391	.49383	1.35007
Variance	.250	1.620	.679	.244	1.823

Source: SPSS Calculation

Table 1 showed the demographic profile of the respondents. The total number of respondents for the study was 300 out of which only 271 were found appropriate (due to missing values of 29 responses). The values considered for the demography were; gender, age, education, marital

status and monthly household income. Since, the demographic profile did not have a direct relationship with the objective of the study. Therefore, only restricted details such as mean, standard deviation and variance were provided in the study and not the elaborated detail, such as frequency, cumulative frequency and percentage of each item of the variable.

7.1   Statements and their Coding Values

Under this heading, the researcher showed the statements those were used in the questionnaire for the purpose of primary data collection from respondents. Furthermore, those statements used for the study were coded for the analytical purpose.

Table 2: Coding Values for the Statements Related Factors Influencing Green Marketing

S. No	Statements	Coding values
1.	I believe environment protection is must	EC1
2.	Education regarding green products	SR1
3.	Green products suits my image	SR2
4.	Advertisement helped green purchasing	GA1
5.	Being affordable price	P1
6.	I distribute products to protect the environment	EC2
7.	Consistent price	P2
8.	Going green is good for the environment	EC3
9.	My purchase of green products encourages others	SR3
10.	My initiatives for green products are pertinent to the society	SR4
11.	A brand associated pricing	P3
12.	I got influenced by the society while buying products	SR5
13.	High price due to more cost	P4
14.	More complex pricing decision	P5
15.	Unsuitable pricing policy for green products	P6
16.	More importance for green product	GA2
17.	I avoid products having toxicity	EC4
18.	I am concerned for biodegradable products	EC5
19.	Overstatement on marketing green products	GA3
20.	Discuss on social platforms regarding green products	SR6
21.	Customer satisfaction from organic product advertisement	GA4

Source: Primary Data

The above table stated the statements and their coding values of factors influencing the customer's perception regarding green marketing. The variables having coding value EC, SR, P and GA for environmental concern, social reference, pricing and green advertisement respectively.

7.2   Reliability Analysis

The core concern for the researcher is that whether the data set which was used in the study having its reliability of the study or not. In this study, the Cronbach's scale was used to measure the reliability; moreover the internal consistency was also checked with the help of Cronbach's scale.

Table 3: Reliability

Cronbach's Alpha	No. of Items
.883	21

Source: SPSS Calculations

The cronbach's alpha value for first factor, i.e. time based factor with five items arrives at 0.883 (greater than 0.7) which was accepted.

7.3   Exploratory Factor Analysis for Identified Influencing Factors

The exploratory factor analysis is used to reduce a massive range of variation in fewer numbers of factors. This technique removes maximum collective variance from all variables and puts them right into a commonplace rating.

Table 4: KMO and Bartlett's Test

KMO		.944
Bartlett's Test of Sphericity	Approx. Chi-Square	3463.065
	df	210
	Sig.	.000

The above table showed the result of KMO, i.e. 0.944 that indicated that the sample taken was appropriate to proceed with a factor analysis or principle component analysis procedure. The next step in the application of factor analysis was extraction of factors, i.e. reducing the various numbers of factors into the smallest number of factors that high exhibits the interrelation among the data set. *BTS* checks the null hypothesis that the correlation matrix is an identity matrix. The above table showed the significant value less than 0.05. Therefore, the sample considered for the study is statistically significant.

Table 5: Communalities

	Initial	Extraction
EC1	1.000	.615
SR1	1.000	.622
SR2	1.000	.665
GA1	1.000	.733
P1	1.000	.671
EC2	1.000	.638
P2	1.000	.601
EC3	1.000	.684

SR3	1.000	.612
SR4	1.000	.769
P3	1.000	.621
SR5	1.000	.650
P4	1.000	.772
P5	1.000	.630
P6	1.000	.593
GA2	1.000	.635
EC4	1.000	.595
EC5	1.000	.643
GA3	1.000	.575
SR6	1.000	.579
GA4	1.000	.724

For the principal component matrix it is always equal to one (1) for correlation analysis. The extracted value ranged from .575 to .772. Moreover, it can be said that all the values were more than .50 and hence, the proportion of each variable's variance explained by the assumed factors.

Table 6: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.292	53.772	53.772	11.292	53.772	53.772
2	.829	3.947	57.720	.829	3.947	57.720
3	.759	3.616	61.335	.759	3.616	61.335
4	.746	3.553	64.888	.746	3.553	64.888
5	.647	3.081	67.969			
6	.592	2.820	70.789			
7	.579	2.756	73.545			
8	.551	2.624	76.168			
9	.535	2.548	78.716			
10	.493	2.346	81.062			
11	.476	2.269	83.331			
12	.449	2.139	85.470			
13	.427	2.032	87.502			
14	.420	1.998	89.501			
15	.384	1.830	91.331			
16	.365	1.740	93.070			

17	.333	1.584	94.654			
18	.326	1.552	96.206			
19	.290	1.380	97.586			
20	.280	1.336	98.922			
21	.226	1.078	100.000			

The above table showed the total variance explained with the help of extraction sums of squared loadings. A total of 4 components come out to be true and satisfied the total variance explained. The extraction sums of squared loadings in cumulative percent of these 4 components were 64.888. Therefore, the final four components were extracted for the study.

Table 7: Rotated Component Matrix

	Component			
	1	2	3	4
EC1		.621		
SR1	.586			
SR2	.598			
GA1				.685
P1			.619	
EC2				
P2			.584	
EC3		.709		
SR3	.619			
SR4	.770			
P3			.543	
SR5	.635			
P4			.765	
P5				
P6				
GA2				.545
EC4		.551		
EC5		.655		
GA3				
SR6	.580			
GA4				.710
Principal Component Analysis through Varimax [a]				
a. 11 iterations.				

Source: SPSS Calculation

The above stated table showed the rotated component matrix through principal component analysis using the Vrimax rotation method. The result showed that the 4 components and the variables loaded with those components. Moreover, the variable having the values below .50 were released.

Figure 1: Factors Influencing Customer's Perception Regarding Green Products
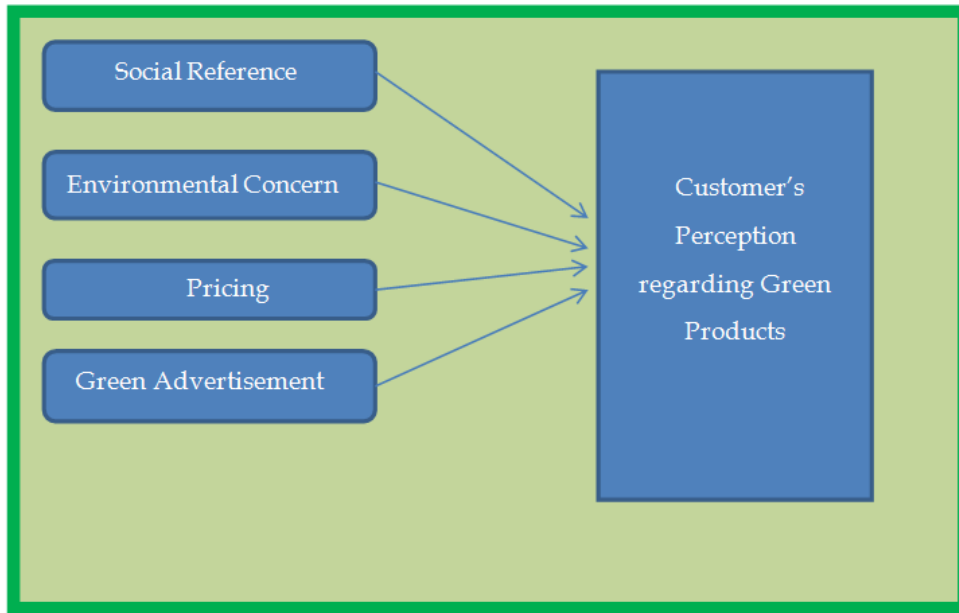
The first factor, i.e. social reference is having variables, such as education regarding green products (SR1), green products suits my image (SR2), my purchase of green products encourages others (SR3), my initiatives for green products are pertinent to the society (SR4), I got influenced by the society while buying products (sr5), discuss on social platforms regarding green products (SR6). The variable SR4 (.770) is most influencing variable and the variable SR6 (.580) is the least associated variable of the factor Social Reference.

The second factor, i.e. environmental concern is having variables, such as I believe environment protection is must (EC1), I distribute products to protect the environment (EC2), Going green is good for the environment (EC3), I avoid products having toxicity (EC4), I am concerned for biodegradable products (EC5). The variable EC3 (.709) is most influencing variable and the variable EC4 (.551) is the least variable of the factor.

The third factor, i.e. pricing is having variables, such as Being affordable price (P1), Consistent price (P2), A brand associated pricing (P3), High price due to more cost (P4), More complex pricing decision (P5), Unsuitable pricing policy for green products (P6). The variable P4 (.765) is most influencing variable and the variable P3 (.543) is the least variable of the factor.

The fourth factor, i.e. Green advertisement component is the last factor, which influences development of creating new Businesses and it includes, Based on the above table, GA4 is the most important variable for the green advertisement for the customer perception and the GA3 is

the least affected variable. The variable GA4 (.710) is most influencing variable and the variable GA2 (.545) is the least variable of the factor.

8. CONCLUSION

In this paper, the author presented an empirical investigation based on the customer's perception regarding green marketing. The collected data had good reliability. The KMO and BTS also showed that the sample taken was adequate and significant respectively for conducting the study. The factors explored with the help factor analysis (EFA) are significantly related with perception of customers regarding green marketing of Meerut district, Uttar Pradesh. The execution of the factors showed the relationship them with green marketing and perception while making purchase decision. The results of factor analysis have revealed four major factors, including social reference, environmental concern; price and green advertisement have an association with the customer perceptions, especially from the Meerut district of Uttar Pradesh.

9. LIMITATIONS

- The study is based on perception of customers regarding green marketing only.
- Simply Meerut district of Uttar Pradesh was focused while collecting the primary data.
- Limited data set was used for the purpose of data analysis
- The exploratory factor analysis was used as the main statistical tool restraining the role of other tools.

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