

## **“Customer Perception towards Green Marketing: A Study of Government Initiatives on Led Bulbs”**

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### **Abstract:**

Green marketing plays an important role in promoting the idea of environmental protection and sustainable development. The study attempts to investigate the customer preference and perception toward the green marketing and usage of LED bulbs. For the purpose of research 100 consumers from Gwalior city were targeted. For testing the hypothesis SPSS 22 is used, test applied were reliability, regression and correlation. Result of the study shows that there is significant relationship between Green marketing & Unant Jyoti LED (Ujala) Scheme which have a significant relationship. Descriptive statistics reveals that the customers have positive perception towards Unnat Jyoti LED Scheme

***Keywords: Green Marketing, LED Bulbs, Environmental Protection, Consumer Perception.***

### **INTRODUCTION:**

Green marketing is a phenomenon which has up scaled importance in the modern scenario and emerged as an important concept in India and is seen as an important strategy of facilitating sustainable development. According to The American Marketing Association, Green Marketing consists of 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. As the modernization becomes the part of daily

life consumer's marketers and government are approaching towards natural environment. India rank sixth in the world in total energy consumption at present.

A government initiative: A National programme for LED based Home and Street Lighting described as "Prakash Path" – "way to light," is launched by the honorable Prime Minister Shri Narendra Modi, objective of the scheme is to spread the message of energy efficiency in the country. LED bulbs have a very long life almost 50 times more than the ordinary bulbs and 8-10 times that of CFLs, and therefore provide both energy and cost savings in the medium term. Efficient domestic lighting is one of the largest contributors to energy savings globally and the distribution of 10 crore LED bulbs in India has led to savings of over 1,298 crore KWh annually. This number has also helped the country avoid capacity of about 2,600 MW. Most importantly, the country has benefitted from reduction of CO2 emission by over 1 crore tonnes annually.

### **OBJECTIVE OF THE STUDY**

- To investigate the level of awareness among consumer for the concept of green marketing.
- To investigate the preferences of Indian consumers about green products.
- To identify the factors that influences the customer perception to buy green products.
- To identify the perception of consumer towards UJALA LED distribution scheme.
- To analyze the authenticity/reliability of the collected data.

### **HYPOTHESIS OF THE STUDY**

H0a: There is no significant relationship between Green Marketing and Unant Jyoti LED scheme.

### **RESEARCH METHODOLOGY**

**The Study-** The study was exploratory in nature.

**Sample Design:**

**Population-** The populations for the study was all the consumers of LED Bulbs through Unnat Jyoti (Ujala) Scheme of Government.

**Sample Size-** 100 Consumers of LED Bulbs through Unnat Jyoti (Ujala) Scheme of Government.

**Sampling Techniques** – Purposive sampling technique was used for the purpose of research

**Data collection Source:** The study is based on primary data and data is collected by self-designed questionnaire which was administered personally to the respondent.

**Tools for Data Analysis** - For the purpose of data analysis SPSS 22 software was used to calculate.

- Item to Total Correlation was applied to check the consistency of all the statement
- Cronbach's Reliability coefficient was utilized to analyze the authenticity/Reliability of the collected data and correlation among the variables was assessed.
- Factor Analysis was carried out to explore the factors which impact investment decision making
- Linear Regression was applied to test the relationship among the extracted factors

#### **DATA ANALYSIS:**

##### **Reliability Statistics**

Measure	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
1	0.7	0.686	14
2	0.838	0.849	8

*1= Green Marketing*

*2=Unant Jyoti LED Scheme*

The reliability of the measures was tested through cronbach's alpha and was found to be 0.7 for Green marketing and 0.838 for Unant Jyoti LED Scheme.

### Factor Analysis

The KMO and Bartlett's Test of Sphericity indicates that the data is suitable for factor analysis. The KMO measures sampling adequacy is .589 which is significant at .0 per cent level of significance.

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.589
Approx. Chi-Square	416.123
Bartlett's Test of Sphericity	Df
	91
	Sig.
	.000

Principal Component Factor analysis with Varimax rotation and Kaiser Normalization was applied. The factor analysis is resulted in 5 factors. The detailed factor table is given below:

Factor Name	Eigen Value	Variance Explained	Item Converged	Factor Loading
<b>Green Tendencies</b>	4.583	32.733	Var003	0.588
			Var004	0.621
			Var008	0.621
			Var011	-0.735
			Var012	-0.777
<b>Green Awareness</b>	1.984	14.169	Var007	0.881
			Var010	0.668
			Var013	0.602
			Var014	0.689
<b>Green Environmental Concern</b>	1.337	9.552	Var001	0.843
			Var002	0.838
<b>Green Organizational Concern</b>	1.394	9.24	Var005	0.761
			Var006	0.744

<b>Green Ethics</b>	1.084	7.743	Var015	0.885
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**DISCUSSION OF FACTORS:**

- 1. Green Tendencies (4.583):** This factor is emerged as the most important determinant with total variance of 32.733. This factor consist of Var003(.588), Var004 & Var008 (.621), Var011 (-.735)& Var012 (-.777)
- 2. Green Awareness (1.984):** This factor is emerged as the most important determinant with total variance of 14.169. This factor consist of Var007(0.881), Var010(0.668), Var013(0,602) & Var014 (0.689).
- 3. Green Environmental Concern (1.337):** This factor is emerged as the most important determinant with total variance of 9.552.This factor consist of Var001(0.843), & Var002 (.838).
- 4. Green Organizational Concern (1.394):** This factor is emerged as the most important determinant with total variance of 9.24.This factor consist of Var005 (0.761) & Var006 (.744).
- 5. Green Ethics (1.084):** This factor is emerged as the most important determinant with total variance of 7.743.This factor consist of Var015 (0.885).

**DESCRIPTIVE STATISTICS FOR UNANT JYOTI LED SCHEME**

The sample mean of each variable decide the impact levels of Unant Jyoti LED Scheme on customer perception of green marketing.

- Mean values are less than 2 shows that the variables have very low impacts
- Mean values are from 2 to 3 shows that the variables have low impacts
- Mean values are from 3 to 4 shows that the variables have good impacts
- Mean values are from 4 to 5 shows that the variables have high impacts

- Mean values are more 5 shows that the variables have very high impacts

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Good Initiative	62	1.00	5.00	4.0806	1.13511	1.288
Price	62	1.00	5.00	3.7097	.98159	.964
Quality	62	1.00	5.00	3.8065	1.06876	1.142
Warranty	62	1.00	5.00	3.9194	.98010	.961
Reduced Electricity Bill	62	1.00	5.00	3.8710	.94927	.901
Easy Replacement	62	1.00	5.00	3.5161	1.18380	1.401
First LED purchase	62	1.00	5.00	2.6613	1.58831	2.523
Solve Electricity Problem	62	1.00	5.00	3.8548	1.27841	1.634
Valid N (listwise)	62					

The descriptive statistics reveals that Unant Jyoti LED Scheme by government of India is a good initiative in terms of price, quality, warranty, easy replacement, reduced electricity bill and to deal with electricity problem in our country indicated by above 3.5161 mean values of customer responses

It also reveals that the customers were purchasing LED bulbs much prior the launch of Unnat Jyoti LED scheme indicated by 2.6613 mean value of customer responses.

### LINEAR REGRESSION

#### Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.649	.421	.412	4.886

The independent variable is VAR00001.

The table provides R and R<sup>2</sup> value. The r value is .649 which represents the simple correlation. It indicates a high degree of correlation.

The R<sup>2</sup> indicate how much of the dependent Variable, “Unnat Jyoti LED Scheme” is explained by the independent variable in “Green Marketing”, is 42.5 % which is model fit.

#### ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1042.443	1	1042.443	43.658	.000
Residual	1432.654	60	23.878		
Total	2475.097	61			

Independent variable: Green Marketing.

This table indicates that the regression model predict the outcome variable significantly well. Here  $P > 0.05$  and indicates that overall, the model applied is significantly predict the outcome variable. The p value (.000) < Standard Value (0.05), hence we can say that null hypothesis is not accepted.

#### Coefficients

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
VAR00001	.583	.088	.649	6.607	.000
(Constant)	1.272	4.305		.296	.769

The linear regression was applied between Green Marketing and Unant Jyoti LED Scheme. The result of linear regression indicates that independent variable Green Marketing has significant relationship with Unant Jyoti LED Scheme.

#### CONCLUSION:

In the study we hypothesized relationship between Green marketing & Unant Jyoti LED (Ujala) Scheme which have a significant relationship and high degree of correlation among them. Five Major Factors were extracted namely Green Tendencies, Green Awareness, Green Environmental Concern, Green Organisational Concern & Green Ethics. Descriptive statistics reveals that the customers have positive perception towards Unnat Jyoti LED Scheme in terms of

Though the customers stated that this was not their first LED purchase but still the Scheme seems to be more effective in terms of price, quality, warranty, easy replacement, reduced electricity bill and to deal with electricity problem in our country.

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