

PERCEPTIONS ON GREEN CONSUMER PACKAGED GOODS (CPG's) WITH SPECIAL REFERENCE TO CHENNAI CITY

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Abstract:

Saving the environment has become the order of the day. With escalate environmental issues that has topped the agenda, the market for organic products have arisen steadily. The objective of the research paper is to analysis the perceptions of the respondents among the Chennai city on variables such as Eco labels, Pricing on Organic Consumer packaged goods and Environmental Concerns that bothers the consumers which eventually helps in making purchasing decisions. About 100 Respondents were chosen for the study and Random Sampling method was adopted. Statistical tools such as one way Anova, t test, and frequency distribution table were used. The findings of the study reveal that awareness about internationally approved Eco Labels is significantly less. Respondents are highly concerned about the aquatic life when it comes to environmental concerns and choosing to buy premium priced eco friendly products when they function better than the conventional ones have topped the agenda. Visualizing a product in a pleasant way helps in creating positive consumer perceptions among the respondents. Therefore it can be concluded that if the respondents are better educated about the Eco labels and if the organic CPG's are produced in a way that performs better than conventional ones the market for eco friendly CPG's would flourish.

Keywords:

Environmental Concerns, Eco Labels, Fast Moving Consumer Goods, Green Marketing, Pricing.

Abbreviations and Acronyms

1. CPG – Consumer Packaged Goods
2. FMCG - Fast-moving consumer goods

Introduction:

Environmental degradation has become the talk of the town. With industrialization, energy crisis and an array of pollution ranging from landfills to ocean life degradation. In the recent years an increase in the environmental pollution has directly affected the human and animal health. The need for considering environmental issues as a top priority on the agenda has become as the need of the hour.

Finding Solutions for the Environmental Issues:

Escalated environmental issues naturally leads to eventually resolve such issues through actions, therefore people around the world have tried to improve environmental quality through making simple lifestyle changes and actions such as, for example: reusing the use of one time use plastics, insisting carpooling or bike pooling to the work and way back home, switching to alternative form of energy such as solar or wind

energy to meet energy crisis, reusing containers to purchase products, composting food waste using vermin compost or aerobic decomposition etc.

Despite making all these efforts, the environmental issues have arisen space to create new business avenues especially among the consumer packed goods industry. With recent trend and changes in the preferences of the consumers, the green or the organic CPG industry has become a promising one. There are many CPG companies that have turned towards making green products to help hold a loin share of the market

Definition:

CPG / FMCG: Fast-moving consumer goods (FMCG) or consumer packaged goods (CPG) are products that are sold quickly and at relatively low cost. Examples include non-durable goods such as packaged goods, beverages, toiletries, over the counter drugs and many other consumables.¹

GREEN MARKETING:

Promotional activities aimed at taking advantage of the changing consumer attitudes toward a brand. These changes are increasingly being influenced by a firm's policies and practices that affect the quality of the environment, and reflect the level of its concern for the community.²

The first book green marketing was titled as, "Ecological Marketing". Green Marketing came into existence during the late 1980's and early 1990's, since the industrialization phase had just began during 1990's.

Objectives of the Study:

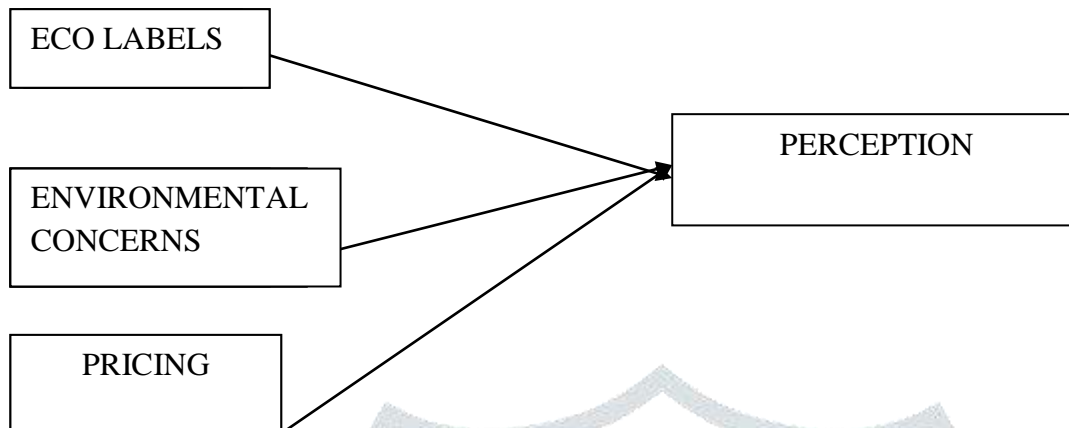
- To evaluate the awareness about various types of eco labels and the opinion about such eco labels
- To check with the environmental concerns of the consumers regarding
- To analysis about the pricing factors in choosing eco friendly CPG's
- To assess the overall Perceptions of the Consumers

Research methodology:

To make an analysis and understand the perceptions on what the respondents are holding on Organic CPG's opinions were collected from 100 respondents in the Chennai city. Therefore the universe of the study was Chennai City. The method of sampling used was, "Random Sampling Method". The collected data was analyzed through the SPSS Version 20. The statistical tools such as Frequency Distribution table, Chi Square and One Way Anova were used for critically analyzing the data to come out with solid findings.

Structural Equation Model / Theoretical Framework

A simple structural equation model that blends along with the objectives of the study is constructed as follows



Segmentation of the Questionnaire:

The questionnaire was divided into two categories, comprising of Section I and Section II. Section I consisted of the demographic details of the respondents and Section II consisted of statements with 5 point scale options about Eco Labels, Environmental Concerns, and Pricing and Perceptions

Data Analysis and Interpretation:

Table 1 – Demographic Details

S.No	Demographic details:	Frequency	Percentage
1	Gender		
	(a) Male	37	37%
	(b) Female	63	63%
2	Age		
	(a) Below 17 yrs	53	53%
	(b) 17 yrs – 39 yrs	28	28%
	(c) 40 yrs - 52 yrs	11	11%
	(d) 53 yrs -71 yrs	5	5%
	(e) Above 71 yrs	3	3%
3	Monthly Income:		
	(a) Rs. Upto 30,000	76	76%
	(b) Rs. 30,000 – Rs. 80,000	17	17%
	(c) Above Rs. 80,000	7	7%

t- Test

Null Hypothesis: There is no significant difference between Male and Female respondents with respect to Consumer Perceptions

Table 2 : t- test for significant difference between Male and Female with Respect to Consumer Perceptions on CPG's

Consumer Perceptions on CPG's	Sex				t value	P value
	Male		Female			
	Mean	SD	Mean	SD		
Eco Labels	17.92	3.82	15.75	3.97	2.681	0.009**
Environmental Concerns	18.59	4.18	15.78	5.97	2.528	0.013*
Pricing	17.14	3.07	16.46	3.83	0.912	<0.001
Consumer Perceptions	16.89	2.75	15.16	4.31	2.195	0.031*

Note: ** denotes significance at 1% level

*denotes significant at 5% level

Since the p value is less than 0.01, the null hypothesis is rejected at 1% level of significance with regards to Eco Labels. Hence, there is significant difference between male and female respondents with regards to Eco Labels.

Since the p value is less than 0.05, the null hypothesis is rejected at 5% level of significance with regards to Environmental concerns and Consumer Perceptions. Hence, there is significant difference between male and female respondents with regards to Environmental concerns and Consumer Perceptions.

There is no significant difference between male and female respondents in regards to pricing, since the p value is greater than 5%. Hence the null hypothesis is accepted at 5% level of significant with regards to Pricing.

ANNOVA:

Null Hypothesis: There is no significant difference among age of the respondents with respect to Perceptions

Table 2: ANNOVA for significant difference among Age Group of the consumer with respect to Perceptions on CPG's

Consumer Perceptions on CPG's	Age Group in years					F value	P value
	Below 17 Yrs	17 Yrs – 39 Yrs	40 Yrs- 53 Yrs	54 Yrs – 71 yrs	Above 71 Yrs		
Eco Labels	16.13 ^a (3.68)	17.96 ^b (4.05)	17.64 ^b (4.50)	14.60 ^b (2.88)	10.00 ^b (0.00)	3.875	0.006**
Environmental Concerns	16.23 ^a (5.56)	18.71 ^b (5.11)	18.27 ^b (3.93)	15.20 ^b (5.22)	7.00 ^b (0.00)	4.101	0.004**
Pricing	16.06 ^a (3.54)	17.75 ^b (3.36)	18.73 ^b (2.87)	16.80 ^b (2.49)	11.00 ^b (0.00)	4.360	0.003**
Consumer Perceptions	14.77 ^a (3.31)	17.14 ^b (3.15)	19.09 ^{bc} (2.59)	17.80 ^{bc} (3.56)	6.00 ^c (1.73)	13.195	<0.001

Note: ** denotes significance at 1% level







Since the p value is less than 0.01, the null hypothesis is rejected at 1% level of significance with regards to Eco Labels, Environmental Concerns, and Pricing. Hence, there is significant difference between different age categories of the respondents with regards to Eco Labels, Environmental Concerns, and Pricing. Based on the Duncan Multiple Range Test, respondents who were below 17yrs significantly differ from all other age categories at 1% level of significant.

There is no significant difference between Consumer perceptions and the age of the respondents, since P value is greater than 0.05. Hence null hypothesis is accepted at 5% level of significant with regards to Consumer perceptions.

Friedman test:



(a) Null Hypothesis: There is no significant difference between Mean Ranks on awareness about various types of Eco labels on CPG's

Table 3: Friedman test for significant difference between mean ranks on Awareness about various types of Eco Labels on CPG's

Awareness about Eco labels	Mean Rank	Chi Square Value	P Value
	3.41	124.188	<0.001**
	4.89		
	3.03		
	3.12		
	2.63		
	3.92		

Note: ** denotes significance at 1% level

Since the p value is less than 0.01% the null hypothesis is rejected at 1% level of significance. Hence it can be concluded that there is significant difference among the mean rank between the awareness about various

Eco Labels. Based on the mean rank,  collected a predominant mean rank of 4.89 and the least was received by  (Ecomark), which scored 2.63.

(b) Null Hypothesis: There is no significant difference between Mean Ranks on Environmental Concerns

Table 4: Friedman test for significant difference between mean ranks on Environmental Concerns

Environmental Concerns	Mean Rank	Chi Square Value	P Value
The aquatic life and vegetation gets polluted because of the hazardous product that are used every day	3.15	20.687	<0.001**
Huge carbon foot print made by CPG companies	2.46		
Increase in global warming and climatic changes	3.18		
Alarming raise in landfills and one time use plastics	3.01		
Increase in health issues among humans due to environmental degradation	3.21		

Note: ** denotes significance at 1% level

Since the p value is less than 0.01% the null hypothesis is rejected at 1% level of significance. Hence, it can be concluded that there is significant difference among the mean rank between the environmental concerns of the respondents. The pollution caused to the aquatic life has received the highest mean value of 3.15 and the least mean value was by carbon foot print created by the CPG companies with a value of 2.46.

(c) Null Hypothesis: There is no significant difference between Mean Ranks on Pricing of Eco friendly CPG's

Table 5: Friedman test for significant difference between mean ranks on Pricing

Pricing	Mean Rank	Chi Square Value	P Value
Purchase of green product even when they are priced high if they could perform better than conventional ones	3.25	16.284	<0.001**
Green products are highly priced but I feel that they are worth it	3.17		
Prefer a premium priced green product since they give me a social status	2.57		
Choose an eco-friendly alternative if it is same price as the conventional one	3.19		
Prefer to refill products in the empty containers purchased during the last purchase for half of the price.	2.83		

Note: ** denotes significance at 1% level

Since the p value is less than 0.01% the null hypothesis is rejected at 1% level of significance. Hence, it can be concluded that there is significant difference among the mean rank between the Pricing factors related to CPG's. Among all the factors, the highest mean value (3.25) was received for buying premium priced eco friendly product if they perform better. The least mean value (2.57) was received for purchasing eco friendly products because it gives a social status.

(d) Null Hypothesis: There is no significant difference between Mean Ranks on Consumer Perceptions (influenced by stimuli) on Eco friendly CPG's

Table 6: Friedman test for significant difference between mean ranks on Consumer Perceptions (influenced by stimuli)

Consumer Perceptions (influenced by stimuli)	Mean Rank	Chi Square Value	P Value
Sensing the taste of the product	3.07	12.076	<0.001**
Aroma of the product	3.19		
Seeing the product	3.23		
Touch	2.90		
Sound	2.63		

Note: ** denotes significance at 1% level

Since the p value is less than 0.01% the null hypothesis is rejected at 1% level of significance. Hence, it can be concluded that there is significant difference among the mean rank of consumer perceptions that are created due to stimuli. Among all the 5 common stimuli that influence perceptions, seeing the product has received the highest mean score of 3.23.

Coefficient Correlation:

Null Hypothesis: There is no significant difference between Factors of Perception on Eco friendly CPG's

Table 7: Friedman test for significant difference between factors of Consumer Perceptions on CPG's

Factors of Perception on Eco friendly CPG's	Eco Labels	Environmental Concerns	Pricing	Consumer Perceptions
Eco Labels	1.000	0.720**	0.504**	0.560**
Environmental Concerns	-	1.000	0.428**	0.646**
Pricing	-	-	1.000	0.525**
Consumer Perceptions	-	-	-	1.000

Note: ** denotes significance at 1% level

The coefficient correlation between Eco labels and other factors such as Environmental concerns , pricing, and perceptions are 0.720, 0.504, 0.560 respectively, which indicates 72% positive correlation between Eco Labels and Environmental Concerns, 50% positive correlations between eco labels and pricing, and 56% positive correlation between eco labels and perceptions.

The coefficient correlation between Environmental Concerns and other factors such as Pricing, and Perceptions are 0.428, 0.646 respectively, which indicates 42% positive correlation between Environmental Concerns and Pricing, 64.6% positive correlations between Environmental concerns and perceptions.



The coefficient correlation between Pricing and Consumer Perceptions is 0.525, which indicates 52% positive correlation between pricing and consumer perceptions.



Results and Discussion:

From the demographic details of the respondents it can understood that the female respondents outnumber the male respondents. There are 53 respondents who are aged below 17yrs who occupy the majority of the population. Many respondents make a monthly income of below Rs. 30,000 and therefore a major chunk of the respondents fall under the middle – middle class category.

By analyzing the t – test using the variables chosen for the study, the mean value of men is higher in comparison to mean value of women. Therefore the knowledge about eco labels and environmental concerns are higher among men than women.

By summarizing the Annova, it could be observed that, the respondents who were between the age categories of 40 – 53yrs, are highly influenced by Eco Labels, Pricing and Perceptions that are caused due to stimuli. The botheration about the environmental concerns were quite high among the respondents who are aged between 17 – 39 yrs.

By understanding the results of the Friedman test: Eco symbols such as  ,  have received the highest mean. Such eco labels are not approved by the government or nor does required any third party approval. Therefore it can be understood that consumers are not knowledgeable about the eco labels such as

 (Leaping Bunny),  (Indian Ecomark) which are internationally approved and authenticated by either third party approval or by government.

Respondents feel that among various environmental concerns that bother them, the damage caused to the ocean due use and throw away lifestyle has hit hard as a top concern, since the aquatic life is badly affected due to the throw away of the CPG waste.

A majority of the respondents prefer to by highly priced organic CPG's than the conventional ones, if they function better. Therefore it can be understood that, if the quality of the eco friendly CPG's are good and performs well, then price is not a concern.

Appealing visual impact has created better consumer perceptions among the respondents.

By interpreting the coefficient correlation all the variables chosen for the study are positively correlated to each other.

References:

- 1 Vhatkar, S., & Dias, J. (2016). Oral Care Goods Sales Forecasting Using Artificial Neural Network Model. (E. B.V, Ed.) *Science Direct (79)*, 238-243.
- 2 Green Marketing. (n.d.). Retrieved from Business Dictionary: <http://www.businessdictionary.com/definition/green-marketing.html>

