

A Study on Green Products Buying Decision among Chennai People with respect to their Ecological Consciousness and Challenges to Buy

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ABSTRACT--- Both Government of India and Government of Tamilnadu have taken lots of measures to encourage ecological conscious among the general public. People also interested on the same in their intention, whereas while coming to execution in terms of paying and purchasing decision, they are facing some challenges. Hence this study was conducted to analyse the green products buying decision by the customers. Scope of this study was limited among Chennai people and confined with two constructs such as ecological consciousness and challenges to buy. Around 135 respondents were selected based on convenience sampling method and data was collected through survey by using structured questionnaire. Suitable statistical tools were utilized for analysing the collected data. Based on results of the data analysis, this study reveals that, ecological conscious of the customers was playing major role than the challenges to buying green products, whereas more numbers of challenges to buying variables were showing significant relationship with green products buying decision.

Key words– Buying decision, Challenges to buy, Ecological conscious, Environment friendly, Green products

INTRODUCTION:

The Government of Tamilnadu has taken the effort and considered the highest priority to preserve, safeguarding its environmental resources and ecological footprints. Environmental preservation may encompass the entire activities of human being with respect to their ecological footprint. Highlighting note of the National Environment Policy (NEP) which declared by Government of India during 2006 was that, spreading poverty and the poor environmental quality which adversely affecting human health and social development outcomes were due to degradation of our environment. Environment is a prime area which requires commitment and attention of participants from Government bodies, civil society, industry, academia and public with maximum role. As a small initiative from academia research category, this study was conducted among Chennai people in order to analyse the buying decision of green products with respect to ecological consciousness while taking their purchase decision and challenges faced by them while purchasing.

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REVIEW OF LITERATURE:

Ecological consciousness is about the consumer's choice to use eco-friendly products (Laroche et al., 2001). The authors examined the Ecological consciousness and buying behavior. The study examines the consumers' willingness in paying more for the eco-friendly products. The findings suggest that the consumers have Ecological consciousness behavior. The researchers identify that there is a lack of research in the field of Ecological consciousness and buying behavior (Nassani, Mohsen A., & et.al. 2013). There is need for research in ecological consciousness product and on its consumers buying behavior to protect environment (Ahmed, J., et. Al. 2012).

In India the idea and awareness on green products marketing is predominant in recent years (Sangeetha, B. 2015). A study examined in Indian context identifies the efforts that are undertaken by the marketers to generate awareness among the green brands. In this research the review briefs the role of communication in the domain of marketing green brand products. The findings states that green product buyers are well exposed and there is an inadequateness in the brand promotion. The study recommends that there is a need for green product awareness (Maheshwari, P S. 2014).

Delafrooz N et al, (2014). As green marketing activities are flourishing in many countries, these activities played a significant role in enlarging consumer knowledge and in switching consumers over green products purchasing.

Uddin S, Khan M (2016), There is a growing pressure from the stakeholders and regulatory bodies to promote green consumption. Heightened environmental consciousness is also contributing to greater adoption of green products and services.

Sarumathi, S. (2014) Today's consumers are more aware of the environmental issues caused by heavy industrialization. They demand eco friendly products which will reduce the damages caused by industrialization. They are interested in buying eco friendly products and willing to pay more (Consumers who care). The willingness to pay more on eco-friendly products differs among demographic groups. This difference is caused or influenced by many factors like education, eco literacy, and geographical region.

N. I., & Kumar, D. S. (2011)The results indicate that consumers' pro-environmental concerns significantly affect their green buying behavior. Also, consumers are willing to buy eco-friendly products but not many are willing to pay a higher price for such products. The survey findings disclose that consumers' awareness towards eco-friendly products and their environmental concern impacts their green buying behavior. Increased consumer demand will help reduce costs in production of eco-friendly products. Awareness among consumers that their buying choices can make a difference to the environment should be promoted to accelerate the consumption of eco-friendly products.

Nuttavuthisit, K., &Thøgersen, J. (2017).It identifies consumer trust as a distinct volition factor influencing the likelihood that consumers will act on green intentions and strongly emphasizes the needs to manage consumer trust as a prerequisite for the development of a market for green products. Specifically, based on a mixture of qualitative and quantitative methods, it is found that lack of consumer trust is a barrier for the development of a market for organic food in Thailand.

Ramesh, S. V., &Divya, M. (2015) Results indicated that the main reasons for purchasing organic food products are an expectation of a healthier and environmentally friendly means of production. Organic buyers tend to be older and higher educated than those who do not buy them. In addition, consumers' trust in the authenticity of the goods and price are also issues. However, the main barrier to increase the market share of organic food products is consumer information.

RESEARCH OBJECTIVE:

This study was conducted with the objective of analysing the green products buying decision among Chennai people by focusing their ecological consciousness and challenges faced by them while taking their purchase decision.

RESEARCH METHODOLOGY:

This research was planned based on descriptive research method. Scope of this study was narrowed among Chennai people. Respondents of this study were considered as the people those who aware about green products. Buying decision in this study was limited and defined with respect to ecological consciousness and challenges faced by the respondents while purchasing their green products. Data were collected from 147 respondents, in which 12 responses were rejected due to poor and incomplete responses. Finally 135 responses were considered for the data analysis. Data were collected through survey method by using non-probability, convenience sampling method, because sample were chosen based on convenient between researcher and respondent with respect to time and green concept awareness. Collected data were entered in to SPSS software package and analysed by using various statistical tools such as frequency analysis, factor analysis, reliability analysis and regression analysis, and results were given in further section.

ANALYSIS FOR UNDERSTANDING BASIC DEMOGRAPHY DETAILS OF RESPONDENTS:

Initially frequency analysis was carried out in order to understand the basic demography details about the

respondents. Among the total sample size, around 67% of the respondents were male and remaining female. Around three fourth of the respondents were belongs to 20 to 40 age group. Since this study was conducted in Chennai and it's sub-urban, maximum (77%) of the respondents were participated from metro zone. Remaining was from rural and sub-urban zones. All the people those who participated in this study were educated in which one third of the respondents undergraduate and another one third were post graduates. Most of the data contributed from private employees (38%) followed by business men (22%) and students (17%). Around 64% of the respondents who took part in this study were earning less than 5 Lakhs per annum. Same percentage of the respondents was married. Around 75% of the people's family had 3 to 5 members in their family. Around 80% of the respondents were aware about green products and remaining partially aware about the same. Around 24% of the respondents were frequent buyers, 47% moderate buyers and 21% rare buyers and remaining never.

VALIDATING THE CONSTRUCTS:

For the main analysis two sets (constructs) of data were utilized such as challenges to buy and ecological consciousness data. Validity of these constructs were analysed by using reliability analysis and factor analysis. Reliability of both sets were analysed by using Cronbach's alpha and justified the same with 94% and 97% respectively. Hence further analysis such as factor analysis and regression analysis were carried out for accomplishing research objectives.

FACTOR ANALYSIS

Factor analysis was used to identifying factors through minimizing the multiple variables into few new factors, so that variables could be categorized under specific attributes. This could be useful for validating the constructs of this study. Factor analysis was presented by using three different segments such as KMO and Bartlett's test, total variance explained and rotated component matrix. KMO test was used to justify the sampling adequacy. Table 1 shows that, sampling adequacy value of KMO test was 0.924. It denotes that sampling adequacy for this study was 92% and it was considered as adequate. Bartlett's test of factor analysis resulted that all the variables taken for this study was significant, since the significant value was 0.000 ($p \leq 0.05$).

Table 1. KMO and Bartlett's Test of Factor Analysis

Test Elements	Values
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.924
Bartlett's Test of Sphericity	Approx. Chi-Square Df Sig. 3387.328 153 0.000



Table 2 shows that, around 72% of the total variance were explained through three different factors (components) with hygiene value of one and above. All three factors were extracted by using principle component analysis method. Loadings of each variable were determined and rotated by

using Varimax rotation method. Rotation converged in 5 iterations. All the variables were categorized under these three different factors based on the loading value of 0.5 and above.

Table 2. Total variance Explained through Factor analysis

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.171	45.397	45.397	5.341	29.670	29.670
2	3.741	20.784	66.181	4.619	25.663	55.334
3	1.076	5.980	72.160	3.029	16.827	72.160
4	.749	4.163	76.324			

Table 3. Rotated component matrix in factor analysis

Variables	Components (Factors)		
	Ecological Consciousness	Environmental related Challenges	Cost related Challenges
Challenge to buy1			.786
Challenge to buy2			.699
Challenge to buy3		.703	
Challenge to buy4		.659	
Challenge to buy5			.680
Challenge to buy6			.725
Challenge to buy7		.746	
Challenge to buy8		.807	
Challenge to buy9		.870	
Challenge to buy10		.868	
Challenge to buy11		.626	
Ecological Concious1	.797		
Ecological Concious2	.856		
EcologicalConcious3	.879		
EcologicalConcious4	.893		
EcologicalConcious5	.738		
Ecological Concious6	.885		
Ecological Concious7	.863		
Reliability values	0.966	0.920	0.850

Table 3 shows the different variables in specific factors. Factor analysis shows that, all the seven variables of ecological conscious were categorized under the same ecological conscious construct. Whereas challenge to buy construct was separated as two different factors and named as environmental related challenges and cost related challenges. Environmental related factor had seven different variables such as challenges to buy 3, challenges to buy 4, challenges to buy 7, challenges to buy 8, challenges to buy 9, challenges to buy 10, and challenges to buy 11. Similarly, cost related challenges factor consists remaining four other variables such as challenges to buy 1, challenges to buy 2, challenges to buy 5, and challenges to buy 6. Reliability of these new factors was analysed and all these three factors were highly reliable factors since their values lies 0.85 and above. Though challenges based variables were separated as two different factors, they combined as single factor as challenges for further analysis. Hence these two factors (Challenges to buy and ecological conscious) were taken for regression analysis in order to determine the green products buying decision among Chennai people.

DETERMINING GREEN PRODUCTS BUYING DECISION:

Two hypotheses were formulated for analysing the green products buying decision among Chennai people as follows.

- Ho1: There is no relationship between challenges to buy green products and buying decision
- Ho2: There is no relationship between ecological consciousness and green products buying decision

For testing these two hypotheses, regression analysis was used. In this analysis, buying decision was used as dependent variable; whereas, ecological consciousness, and challenges to buy were used as independent variable. Model summary (Table 4) of this analysis was resulted that, R square value of challenges to buy and ecological conscious factors was 0.632 and 555 respectively. It reveals that, around 62% of the green products buying



decision was explained by 11 variables of challenges to buy, similarly around 56% of the same was explained by seven variables of ecological conscious. Table 5 shows the ANOVA results of regression analysis. This communicates that, significance value of 0.000 for both challenges to buy and ecological conscious factors, which

reveals that there is no significant difference between means of green products buying decision and two of these factors. These two results of regression analysis justified the interpretation of coefficients table (Table 6) values.

Table 4. Model Summary of regression analysis

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
CBGP	0.795 ^a	0.632	0.587		13.650
ECGP	0.745 ^a	0.555	0.542		15.087

Table 5. ANOVA results of regression analysis

	Model	Sum of Squares	df	Mean Square	F	Sig.
CBGP	Regression	58168.418	22	2644.019	14.191	.000 ^b
	Residual	33910.685	182	186.322		
	Total	92079.102	204			
ECGP	Regression	65577.487	7	9368.212	41.156	.000 ^b
	Residual	52582.380	231	227.629		
	Total	118159.866	238			

Table 6. Coefficient values of regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Challenges to Buy Green Products	39.450	4.444		8.876	.000
Green products are too expensive.	1.889	1.422	.110	1.329	.185
There is a limited selection of Green products from which to choose.	2.503	1.604	.134	1.561	.120
They are difficult to find in a retail outlet.	.545	1.635	.029	.333	.739
I do not trust or believe the green labeling on every product.	2.931	1.475	.171	1.987	.048
They are difficult to identify because they are poorly labeled.	5.085	1.814	.282	2.804	.005
The green labeling on product information is confusing.	2.877	1.489	.168	1.932	.051
They are of low quality/do not function as well as conventional products.	3.566	1.690	.192	2.110	.036
The idea of green products is not important to me.	-2.398	1.672	-.130	-1.434	.153
They are marketed only for attracting consumers.	-1.101	1.848	-.062	-.596	.552
Lack of awareness about green products.	3.805	1.665	.222	2.285	.023
Lack of opinion leaders for the green products.	1.184	1.674	.061	.707	.480
Ecological Consciousness – Green Products	21.177	3.639		5.819	.000
A ecological products or green products available in the market.	3.291	1.307	.177	2.517	.012
I would like to preserve the earth using green products.	-1.639	1.480	-.087	-1.107	.269



I just buy eco-friendly products because they protect our environment.	1.456	1.625	.076	.896	.371
I believe green products save natural resources effectively.	3.370	1.673	.183	2.014	.045
I am aware of companies promoting the concept of green.	2.394	1.193	.132	2.006	.046
I feel proud of buying eco-friendly products.	.351	1.659	.019	.212	.832
I strongly recommend green products to my family, friends, neighbours, etc.	6.561	1.745	.344	3.760	.000

Based on the significant values of Table 6, out of 11 variables, five variables from challenges to buy factor were identified as significant variables since their significant values were 0.000 ($p \leq 0.05$). They were CBGP4, CBGP5, CBGP6, CBGP7 and CBGP10. Hence null hypotheses of Challenges to buy (H_01) was rejected ($p \leq 0.05$). This result communicated that, there is a significant relationship between challenges to buy and green products buying decision. Similarly, four variables were identified as significant variables out of seven variables of ecological conscious since their significant values were 0.000 ($p \leq 0.05$). They were ECGP1, ECGP4, ECGP5 and ECGP7. Hence null hypotheses of ecological conscious (H_02) was rejected ($p \leq 0.05$). This result communicated that, there is a significant relationship between ecological conscious and green products buying decision.

Influence of each variable decided based on unstandardized coefficients values. For example, every one unit increase in CBGP4, CBGP5, CBGP6, CBGP7 and CBGP10 would increase 2.931 units, 5.085 units, 2.877 units, 3.566 units and 3.805 units of green products buying decision respectively. In similar way, every single unit increase in ECGP1, ECGP4, ECGP5 and ECGP7 would improve green products buying decision by 3.291 units, 3.370 units, 2.394 units and 6.561 units respectively. In other hand, importance of these variables was decided based on standardized coefficient values. Out of these 10 significant variables (Six from challenges to buy and four from ecological conscious) ECGP7 (0.344) played major role, followed by CBGP5 (0.282) and CBGP10 (0.222).

CONCLUSION:

Based on findings of this study, ecological conscious played major role than the challenges to buying green products, whereas more numbers of challenges to buying variables were showing significant relationship with green products buying decision. Hence green product manufacturers have to work out on the significant variables of the same in order to minimize the challenging barriers of the customers while purchasing green products. In similar way, ecological conscious of the green products buying consumer was also playing major role. Hence this study recommends that, green products manufacturers and retailers have to utilize and encourage this scenario by addressing focused manner of this research finding.

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