

A Study on the Perception and Impact of Sustainable Green Consumption Practices of Women in Preserving Ecology with Special Reference to Chennai City

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Abstract—Environmental concerns are gaining prominence with the increased media coverage, increased awareness of environmental issues and increased pressure from environmental groups, stringent legislation thereby making people in general more concerned about their habits and the effect that it will have on the environment. In this study a new dimension is added to the issue of women and ecology and it tries to tap the inner potential of women who in their own way over the centuries have been preserving and conserving nature in their small way and create a reawakening in them that every decision they make for themselves and their family can take them closer to creating a positive impact on the mission to save earth. People are increasingly either purchasing or ignoring products, based on their environmental impact. Many organizations have responded to these changing consumer preferences through the introduction of green products. This study is an effort to impart sustainable practices, and create green consumers, one who is mindful of the environment in their every consumption, and thereby transform the community into a sustainable community i.e. a community that believes today's growth must not be achieved at tomorrow's expense.

Index Terms—About Eco friendly, green claims, green consumerism, green products, sustainability.

I. INTRODUCTION

The role of women is undergoing a transformation as their position of influence has increased tremendously in their own families, work areas, society and their own community. Women all over the world play a significant role in the protection of biological diversity through their various responsibilities. Wangari Maathai founded Kenya's green belt movement, involving 80,000 women in planting of trees. Penam women were not lagging behind. They spend weeks on logging blockades in Sarawak. In Columbia, Margarita De Botero has increased awareness of the need to protect bio-diversity through green university. The Indian women also were always ahead in the matter of prevention of pollution and protection, preservation, conservation, promotion and enhancement of the environment. The unswerving concern of Indian women with environment protection can be traced long back to 1731 A.D., when Amrita Bai of Khejaralli village of Jodhpur District of Rajasthan sacrificed her life for saving the trees of her village giving place for the modern 'Chipko Movement'.

It is important to recall the names of Indian women who

have fought legal battles in the court of law for environment protection, as Mrs. Sarala Tripathi of Indore, or today's torchbearers such as Medha Patkar, who are social workers & environmentalist carrying on the crusade of environment protection. However the present day environmental concerns cannot be solved with the involvement of only a few selected groups of women. It calls for a global involvement of the entire community of womenfolk. Today, Women should break all barriers, cross all boundaries and bridge together for the cause of building a sustainable community.

In recent days there is a great threat to environment due to the change in lifestyle of human over the years.. Along with the Government, the society is also much concerned about environment as the ill effects of global warming will affect all especially the future generation. There is a great role of women in preserving the ecology from the past. This is one aspect as to why the study is a focus on role of women in such green initiatives in a metro like Chennai.

II. OBJECTIVES OF THE STUDY

- 1) To study the level of awareness among women in Chennai towards green products
- 2) To examine the buying motives and perception of women towards Eco Friendly products
- 3) To develop a set of parameters that influence the purchase decision of women towards Eco Friendly products

Hypothesis

The following hypothesis were formed for testing

- 1) H_0 : There is no significant association between the Educational Qualification of the respondent and the preference to purchase green products.
- 2) H_0 : There is no significant association between the family income and the preference to purchase high priced green products.
- 3) H_0 : There is no significant difference in the behaviour of the highly educated respondents in spreading awareness about green products.
- 4) H_0 : There is no significant association between the age of the respondent and the level of awareness on green products.

III. LITERATURE REVIEW

Carmen Tanner and Sybille Wolfing Kast (2003), in their article have attempted to know the barriers faced by

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consumers in purchase of green foods and gaining knowledge about green purchases of Swiss consumers. They found that green purchases are not significantly related to moral thinking, monetary barriers or the socio-economic characteristics of consumers [1].

Alice Gronhoj and Folke Olander (2007) have discussed about the difference in male and female pertaining to consumer behavior towards environmentally related family consumption. The sample included 30 couples with children. It was found that there were not much difference in the responses given. The researcher has suggested that there should be keen research attention given to environment oriented consumer practices which are adopted and transmitted among family members [2].

Irene Tilikidou (2007), in the article has discussed about the pro-environmental purchasing behavior of Greeks. The study revealed that majority of respondents adopted energy and waste conservation, reduction of overall consumption and they avoid products which are genetically modified. They prefer environment friendly products to others when there is not much difference in price [3].

Nik Ramli Nik Abdul Rashid (2009), in the article has researched upon the awareness of eco-label in Malaysia. He has introduced eco-label as a separate variable. The study was made among the employees in organizations which adopted environment management system. The study revealed there will be a positive reaction towards eco-label when consumers are made aware of environment related issues [4].

Iain R. Black and Helen Cherrier (2010), has discussed about the anti-consumption practices as a part of sustainable lifestyle. They have also suggested that the marketers are to position sustainable practices such as independence, quality or value for money [5].

Deborah J. C. Brosdahl and Jason M. Carpenter (2010) have discussed about environment friendly consumption behavior in textiles and apparel. It was found the awareness about production process among consumers of textiles and apparels leads to environment friendly consumption behavior [6].

Jūratė Banytė, Lina Brazionienė, Agnė Gadeikienė (2010), in their article have suggested that a green consumer is characterized as an educated woman who belongs to the age group from 30 to 44 and receives higher than average monthly income [7].

Shilpi Sharma and Maneesha Shukul(2012) according to their study conducted on 75 women consumers about their eco friendly behavior while purchasing packaged goods from Vadodara it was found that respondents had a moderate extent of eco- friendly buying behaviour and the reasons behind the purchase of selected goods in different packaging were economy and convenience with very few reflecting environmental concern [8].

Muruganandam D. and Gopalakrishnan S. (2013), in their article have brought out the buying behavior of green products among consumers. They have studied the impact of advertisement on green product purchase behaviour [9].

Sung Hee Park, Kyung Wha Oh and Youn Kyu Na (2013), in their article have discussed about consumer attitude

towards environment friendly products specifically artificial leather products. The survey revealed factors such as public participation, recycling and resource conservation as having an influence on environment friendly attitudes [10].

Significance of the Study

The literature review reveals that there have been researches conducted in areas of green purchase pattern, green consumption with gender perspective as a base, pro-environment purchasing behavior, green label, impact of advertisements on buying behaviour of consumers with regard to green products. From the above review it is clear that there is a gap with regard to the role of women in preserving the environment through green consumption in Chennai city. This research attempts to know the level of awareness of women towards green practices, as well as their interest in advocating the cause through green campaigns.

IV. RESEARCH METHODOLOGY

Methodology: A simple random sampling along with convenient sampling technique was adopted to select the respondents. The sample size was restricted to 300 women belonging to the age group of 18 years and above, from different parts of Chennai. The sample consisted of women belonging to different educational qualification, age, and monthly income. On the basis of the responses of the questionnaire, analysis has been carried out to identify the awareness as well as determine the factors that influence perception.

A. Statistical Techniques Used

Percentage analysis, ANOVA, Factor analysis, Cluster analysis, Discriminant Analysis, Correspondence analysis, Chi-square test, KMO and Bartlett's test, Wilks' Lambda test., have been used.

B. Sources of Data

Primary source: A structured questionnaire was administered to the respondents. The nature of questions were open ended, close ended, multiple choice and dichotomous questions. **Secondary Source:** Journals, Websites, Magazines and newspapers, libraries.

Area and Period of Study: City of Chennai; June 2012-June 2013.

V. DATA ANALYSIS AND INTERPRETATION

A. Demographic Profile

The respondents belonged to a mixed group both married women and single women belonging to different age groups, holding different educational qualifications and falling under different social status of the society. The majority of the women in the survey were married (88 per cent) and in the age group of 31 to 40 years (63 per cent). Most of the women interviewed have completed their graduation (38 per cent) and they have a gross family income of Rs. 1,00,000 to Rs. 3,00,000.(1,00,000 to 2,00,000 34 per cent and 2,00,000-3,00,000 47 per cent).

B. Awareness and Preference towards Green Products

TABLE I: AWARENESS AND PREFERENCE

Awareness	Preference to buy green products	Buying high priced products
Freq	Percent	Freq Percent
No	158 52.6	140 46.7
Yes	142 47.4	160 53.3
Total	300 100.0	300 100.0

Source: Computed from primary data.

142 respondents (47 per cent) are aware about green products. Hence the awareness is slowly picking up and the message of saving ecology is spreading slowly. Majority of the respondents (53 per cent) are willing to buy green products, however another majority (59 per cent) are willing to buy in spite of the fact that such products are overpriced.

C. Reasons for Not Buying Green Products



Fig. 1. Reasons for not buying green products.

Inference: While there are divided opinions on the reasons for not purchasing green products it can be inferred that about 42 percent (127) felt the green claims are being made even on ordinary products.

VI. HYPOTHESIS TESTING

1) H_0 : There is no association between the Educational Qualification of the respondents and the preference to purchase green products.

TABLE II: EDUCATIONAL QUALIFICATION OF THE RESPONDENTS AND THE USAGE OF GREEN PRODUCTS

	Usage of Green Products		Total
	No	Yes	
School	51	53	104
Graduation	61	56	117
Post Graduation	23	36	59
Professional	6	14	20
Total	140	160	300

Source: Computed from primary data.

Since the Chi sq. value is greater than .05 (.132) H_0 is accepted. Hence we can say that there is no association

between the Educational Qualification of the respondents and the preference to purchase green products. Inference: From the Chi Sq. test applied the researcher finds that there is no relationship between the educational qualification of the respondent and the preference to purchase green products. Usage of green products is attitudinal and the educational qualification does not have a role to play in such decisions. The respondents possessing any level of education react in the same manner towards purchasing of green products.

TABLE III: CHI-SQUARE TEST INDICATING ASSOCIATION BETWEEN EDUCATIONAL QUALIFICATION OF THE RESPONDENTS AND USAGE OF GREEN PRODUCTS

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.078(a)	4	.132
Likelihood Ratio	7.631	4	.106
Linear-by-Linear Association	4.204	1	.040
No of Valid Cases	300		

Source: Computed from primary data.

2) H_0 : There is no association between the Family Income of the respondents and the preference to purchase high priced green products.

TABLE IV: CHI-SQUARE TEST INDICATING ASSOCIATION BETWEEN FAMILY INCOME OF THE RESPONDENTS AND THE PREFERENCE TO PURCHASE HIGH PRICED GREEN PRODUCTS

	Value	Df	Asymp Sig (2-sided)
Pearson Chi-Square	16.910(a)	4	.002

Source: Computed from primary data.

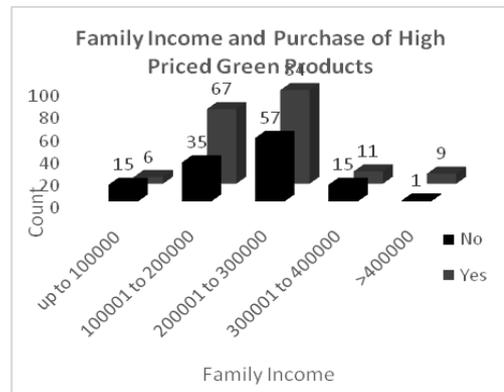


Fig. 2. Association between family income of the respondents and the preference to purchase high priced green products.

Since the Chi sq. value is lesser than .05 (.002) H_0 is rejected. Hence we can say that there is an association between the family income and the preference to purchase high priced green products. Women belonging to the higher family income group prefer to buy green products, in spite of the fact that these products are costly.

3) H_0 : "There is no significant difference in the behaviour of the highly educated respondents in spreading awareness about green products."

Since the Significance value in the ANOVA table is lesser than .05 (.000) H_0 is rejected. Hence we can say that there is a significant difference in the behaviour of the highly educated women in spreading the awareness on green products when compared to women having low level of education. The

women with high qualifications are more involved in green campaigns, community programs and also in taking efforts to conserve ecology.

TABLE V: ANOVA INDICATING DIFFERENCE IN EDUCATION LEVEL OF RESPONDENTS AND EFFORTS TAKEN TO SPREAD AWARENESS ON GREEN PRODUCTS

Source	Type II Sum of Squares	df	Mean Square	F	Sig.
Model (green campaigns)	1198.792(a)	14	85.628	112.747	.000

Source: computed from primary data.

4) Factor Analysis: In order to test the validity of the factors considered in the research a KMO and Bartlett’s test was employed.

H₀: “The factor analysis employed is not valid.”

TABLE VI: INDICATING VALIDITY FOR FACTOR ANALYSIS – KMO AND BARTLETT’S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.714
Approx. Chi-Square	4847.875
Df	903
Sig.	.000

Source: Computed from primary data.

Since the significance value is less than .05 (.000) the H₀ is rejected. The factors considered in this research are valid.

TABLE VII: FACTOR ANALYSIS INDICATING TOTAL VARIANCE EXPLAINED

Component	Initial Eigenvalues		Extraction Sums of Squared Loadings		Rotation Sums of Squared Loadings	
	Total	% of Variance	Total	% of Variance	Total	% of Variance
1	5.977	13.899	5.977	13.899	4.085	9.501
2	3.503	8.147	3.503	8.147	3.397	7.901
3	2.889	6.718	2.889	6.718	3.246	7.548
4	2.232	5.191	2.232	5.191	2.908	6.764
5	1.873	4.355	1.873	4.355	2.837	6.597

Source: Computed from primary data.

The factors are classified into five categories in the factor test (see Table VII). Of these five components the first component contributes to the maximum in choosing green products (13.899%). The set of factors in each category can be identified using the Rotated Component Matrix.

The rotated component matrix Table VIII shows that green practices like avoiding wastage of paper, avoiding plastics, using organic items, segregation of wastes at home, use of composter, paper cups, taking part in green campaigns, using recyclable products, using five star energy products and growing home gardens contribute maximum to the theme of conserving ecology through green consumption practices among women.

5) Categorizing the respondents on the basis of their awareness on green products:

In order to group the respondents on the basis of their level of awareness Cluster Analysis was employed. According to this test the respondents can be grouped into three categories.

TABLE VIII: FACTOR ANALYSIS INDICATING ROTATED COMPONENT MATRIX

	Component				
	1	2	3	4	5
Avoid wastage of paper	.781				
Avoid plastics	.750				
Use organic items	.683				
Segregation of waste at home	.660				
Use of composter	.645				
Use paper cups	.525				
Take part in green campaigns	.451				
Use recyclable products	.411				
Use 5star energy products	.348				
Growing home gardens	.314				
Initiatives at home		.685			
Use biodegradable products		.682			
Use renewable source of energy		.577			
Educated about recycling		.520			
Aware of eco friendly products		.515			
Prefer eco friendly products		.486			
Water conserving products		.467			
Initiatives to preserve environment		.458			
decision maker in family		.441			
difficulty in getting green products		-.316			
gift eco-friendly product			.675		
recommend to others			.629		
feeling mandatory about eco-friendly products			.543		
gain more knowledge on ecology			.518		
Use in a less harmful manner			.508		
separation of waste at home			-.462		
aware of environmental laws			.443		
Use jute items			-.341		
Aware of eco-friendly products			-.318		
Take part in community activities			.301		
Awareness is quickly spreading				.730	
User of green product				.708	
Recommend to friends				.648	
Gimmick				.568	
Preference to buy green products					.742
no benefit from eco products					.733
Unavailability					.725
Over priced					.497
Buying even if over priced					.358
Carry a bag for purchases					.327

Source: Computed from primary data

TABLE IX: CLUSTER ANALYSIS INDICATING FINAL CLUSTER CENTERS

	Cluster		
	1	2	3
REGR factor score 1 for analysis 1	-.04920	-.31899	.91248
REGR factor score 2 for analysis 1	-.15378	.74985	-1.09928
REGR factor score 3 for analysis 1	.40488	-.18150	-1.16079
REGR factor score 4 for analysis 1	.62067	-.85296	-.47946
REGR factor score 5 for analysis 1	.03088	.07748	-.29508
Total	0.85345	-0.52612	-2.12213

Source: Computed from primary data.

TABLE X: CLUSTER ANALYSIS INDICATING NUMBER OF CASES IN EACH CLUSTER

High Awareness	163.000
Moderate Awareness	95.000
Low Awareness	42.000
Valid	300.000
Missing	.000

Source: Computed from primary data.

The above Table X shows that the respondents are grouped into three categories namely High awareness, Moderate awareness and Low awareness. 163 respondents fall in the category of being highly aware of the Eco friendly products. 95 are in the moderate awareness group and 42 are among the people who possess low level of awareness about going green. By this the researcher finds that Eco conservation and green campaigns are gaining momentum in Chennai.

Checking the validity of Cluster Analysis: In order to check the validity of the Cluster Analysis, Discriminant Analysis was done and Wilks' Lamda test was employed.

H₀: "The Cluster Analysis is not valid."

TABLE XI: INDICATING VALIDITY FOR CLUSTER ANALYSIS – WILKS' LAMBDA

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	.079	701.213	86	.000
2	.307	326.288	42	.000

Source: Computed from primary data

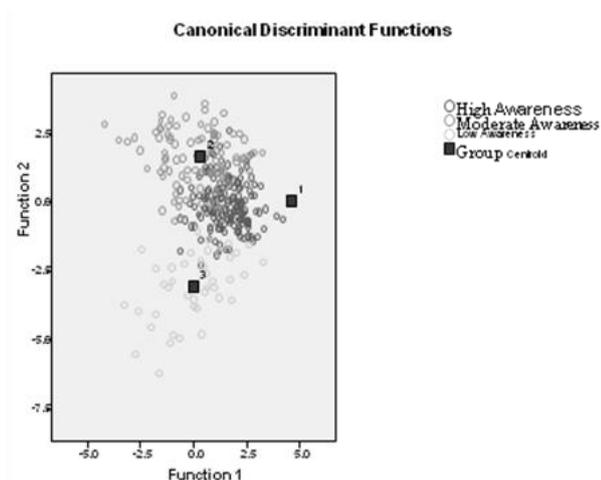


Fig. 3. Canonical discriminant functions for awareness of green products

TABLE XII: CLUSTER ANALYSIS INDICATING CLASSIFICATION RESULTS

x	Cluster Number of Case	Predicted Membership			Group Total
		1	2	3	
count	Highly Aware	160	2	1	163
	Moderately Aware	1	93	1	95
	Low awareness	2	0	40	42
%	Highly Aware	98.2	1.2	.6	100.0
	Moderately Aware	1.1	97.9	1.1	100.0
	Low awareness	4.8	.0	95.2	100.0

Source: Computed from primary data

Since the significance is less than .05 (.000) the H₀ is rejected. This shows that the results of the Cluster Analysis are valid.

The classification results Table XII shows that the first group of high awareness is 98.2% accurate. The second group of moderate awareness is 97.9% accurate and the third group of low awareness is 95.2% accurate. Hence we can rely on the results of this classification in this research.

6) H₀: There is no association between the Age of the respondent and the level of awareness of green products.

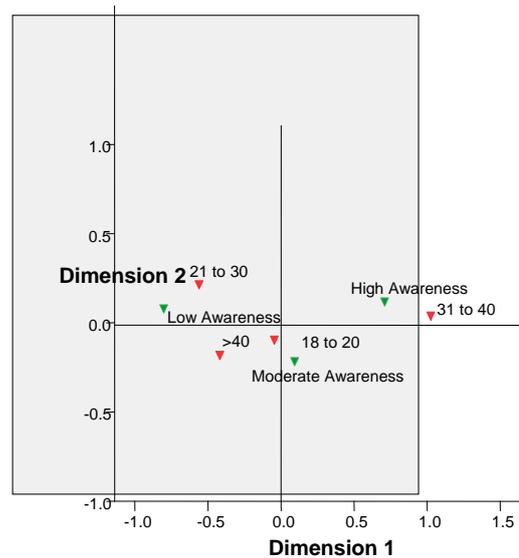


Fig. 4. Association between the age of the respondents and the level of awareness on green products

The Fig. 4 chart clearly explains that there is an association between the age of the respondents and the level of awareness on green products. Hence the H₀ is rejected. From the Correspondence value it is inferred that there is an association between the age of the respondent and the level of awareness on green products. The middle aged group of respondents of 31 to 40 years is highly aware (74 percent) on green products and green initiatives. The school and college students of 18 to 20 years are gaining awareness on green products. But the young women of 21 to 30 years (45 percent) are not so keen on such green initiatives. This may be due to their concentration in work and career settlement.

VII. FINDINGS

1) The awareness about green products is slowly picking up and the message of saving ecology is spreading slowly.

- 2) Majority of the respondents (53 per cent) are willing to buy green products in spite of the fact that such products are overpriced.
- 3) The main reason for women not buying green products is because they feel that the products only claim (42 per cent) to be green but are not actually green.
- 4) The respondents possessing any level of education react in the same manner towards purchasing of green products.
- 5) Women belonging to higher family income group prefer to buy green products, in spite of the fact that these products are costly.
- 6) Women with high qualifications are more involved in green campaigns, community programs and also in taking efforts to conserve ecology.
- 7) Green practices like avoiding wastage of paper, plastics, using organic items, segregation of wastes at home, use of composter, paper cups, taking part in green campaigns, using recyclable products, using five star energy products and growing home gardens contribute maximum to the theme of conserving ecology.
- 8) Eco conservation and green campaigns are gaining momentum in Chennai since most of the respondents are highly aware of such initiatives.
- 9) The middle aged group of respondents of 31 to 40 years are highly aware on green products and green initiatives. Young women of 21 to 30 years are not so keen about green initiatives.
- 10) developing home gardens, roof gardens and providing a green cap for the buildings must be made part of building homes.
- 7) Families must be encouraged to Segregate garbage, recycle biodegradable garbage and make compost from it for their own garden
- 8) Measures of waste management: Using of composter to convert food waste into organic manure should be made a practice at homes. Women should be encouraged to buy one and keep at their homes.
- 9) The notion that green products are high priced should be done away with by making it available at reasonable prices; this should be a Government initiative.
- 10) Women have become independent riding their own bikes, they can use battery operated bikes. Use recycled goods
- 11) Women can make an impact on every purchase like opt for wooden furniture's made out of reused wood, power saving lights at home, opting for 5star energy label products.
- 12) Rain water harvesting units should be installed at home.
- 13) Usage of biodegradable plantain leaf/ palm leaf cups during occasions such as weddings should be encouraged.
- 14) Go in for e-bill, e-filing, e-bank statement thereby saving paper.
- 15) Choose locations and hotels which follow green initiatives during deciding on family vacation and travel.

VIII. OUTCOMES OF HYPOTHESIS TESTING

- 1) There is no association between the Educational Qualification of the respondent and the preference to purchase green products.
- 2) There is an association between the family income and the preference to purchase high priced green products."
- 3) There is a significant difference in the behaviour of the highly educated women in spreading the awareness on green products when compared to others..
- 4) There is an association between the age of the respondent and the level of awareness on green products.

IX. SUGGESTIONS

- 1) Create more Awareness: Green campaigns should be conducted to reach all strata of society. Environmental laws prevalent should be made aware.
- 2) There should be specific programs on environmental conscious buying be it a routine purchase in a vegetable market, to buying textiles, to buying consumer durables.
- 3) Awareness on eco friendly nature of product must be mentioned on the label of the products for all to understand.
- 4) Gifting of eco friendly products for occasions should be encouraged by the community as a whole.
- 5) Money spent on equipments for recycling of water, using of solar etc should be seen as an investment made by the family.
- 6) In Chennai especially where space crunch is literally felt,

X. CONCLUSION: DO YOUR BIT TO SAVE EARTH

Go green seems to be the mantra everyone's chanting now. As Women their decision does have an impact on the welfare and health of the family. Women should indulge more in creating a sustainable community. What each one can do matters. People in India have woken up to calculating carbon footprint. Whether one is eco-conscious citizen or green crusader one must remember that their every little effort counts. Sometimes change in lifestyle is required to become ecologically sensitive. The Government at Tamil Nadu has always promoted the welfare of state as well as Chennai with the slogan "Singara Chennai" through a cleaner and greener Chennai. Women in Chennai have a major role to play. This study throughout has been an attempt for women to adapt to the ways of green consciousness in their day to day lifestyle and become ecologically sensitive. In India majority of women also act as home managers where they are also the major decision makers. Women should realize their position of influence and constructively work towards building an eco friendly sustainable community.

REFERENCES

- [1] C. Tanner and S. W. Kast, "Promoting Sustainable Consumption: Determinants of Green Purchases by Swiss Consumers," *Wiley Periodicals, Psychology and Marketing*, vol. 20, iss. 10, pp. 883-902, October 2003.
- [2] A. Gronhoj and F. Olander, "A gender perspective on environmentally related family consumption," *Journal of Consumer Behaviour*, vol. 6, pp. 218-235, 2007,
- [3] I. Tilikidou, "The effects of knowledge and attitudes upon Greeks' pro-environmental purchasing behavior," *Corporate Social Responsibility and Environmental Management*, vol. 14, pp. 121-134, 2007.

- [4] N. R. N. A. Rashid, "Awareness of eco-label in Malaysia's green marketing initiative," *International Journal of Business and Management*, vol. 4, iss. 8, pp. 132-141, August 2009.
- [5] I. R. Black and H. Cherrier, "A gender perspective on environmentally related family consumption Anti-consumption as part of living a sustainable lifestyle: daily practices, contextual motivations and subjective values," *Journal of Consumer Behaviour*, vol. 9, pp. 437-453, 2010.
- [6] D. J. C. Brosdahl and J. M. Carpenter, "Consumer knowledge of the environmental impacts of textiles and apparel production, concern for the environment, and environmentally friendly consumption behavior," *Journal of Textiles and Apparel, Technology Management*, vol. 6, iss. 4, pp. 1-9, 2010.
- [7] S. Sharma and M. Shukul, "Eco-friendly packaging of selected consumer goods and environmental concern of homemakers," *Journal of Human Ecology issn 0970-9274, Kamla-Raj 2012 J Hum Ecol*, vol. 40, no. 3, pp. 267-275, 2012.
- [8] J. Banytė and L. Brazionienė, "Agnė Gadeikienė investigation of green consumer profile: a case of lithuanian market of eco-friendly food products," *Economics and Management*, vol. 15, pp. 374-383, 2010.
- [9] D. Muruganandam and S. Gopalakrishnan, "A micro analysis on dissect of consumer's to procure green products," *Life Science Journal*, vol. 10, no. 2, 2013.
- [10] S. H. Park, K. W. Oh, and Y. K. Na, "The effects of environment-conscious consumer attitudes towards eco-friendly product and artificial leather fashion product purchase intentions," *Fashion and Text. Res. J.*, vol. 15, iss. 1, pp. 57-64, 2013.



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