



An Analysis of Attitude towards Green Products among the Urban and Rural Consumers

Bhavini B. Patil^{1*} and Suma Hasalkar¹

¹*Department of Family Resource Management, College of Community Science, UAS Dharwad, India.*

Authors' contributions

This work was carried out in collaboration between both authors. Author BBP designed interview schedule, conducted the survey, involved in data collection, analysis, tabulation and writing the research paper. Author SH is the chairman of the advisory committee involved in planning, constant monitoring throughout the study, analyzing and interpreting the results. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/IJECC/2021/V11i130350

Editor(s):

(1) Dr. Daniele de Wrachien, University of Milan, Italy.

Reviewers:

(1) Jeverson Santiago Quishpe Gaibor, Salesian Polytechnic University, Ecuador.

(2) Luz Fernanda Dominguez Mendoza, Scientific Research and Technological Development Center, Peru.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/67031>

Original Research Article

Received 15 January 2021

Accepted 23 March 2021

Published 27 March 2021

ABSTRACT

The growing environmental concern amongst the public has demanded organizations, businesses and individuals to be responsible and conscious in their everyday activity not to cause any harm to the environment. Most environmental problems are caused by the way people living and continuously damaging the environment. The study was conducted with the aim to assess the awareness and knowledge among the consumers about green products. The exploratory research design was adopted to conduct the study. The data was collected from 600 educated consumers from the urban and rural areas of Dharwad and Belagavi district. The data was analyzed by using frequency, percentage, mean, 't' test and correlation coefficient. The results revealed that Both in urban and rural the areas majority of the consumers belonged 22-29 years of age group and more than half of the consumers selected for study were graduates in urban area and studied upto 12th standard in rural area. With regard to occupation one third of the consumers selected for the study were students, followed by unemployed and self employed consumers. Majority of the consumers had medium family income of rupees 7,380-51,780 per month. Maximum number of the selected consumers belonged to upper middle socio economic category. Maximum number of the selected consumers belonged to upper middle socio economic category. The female consumers in both the

*Corresponding author: E-mail: bhavini2428@gmail.com;

locality had favourable attitude towards green products compared to male consumers. There was highly significant difference between the gender and between the locations at 0.01 level. There was significant difference between the gender and location at 0.05 level of significance.

Keywords: Green products; green marketing; consumers; socio economic status; health and environment; attitude.

1. INTRODUCTION

Environmental pollution is one of the most serious problems experienced by humanity and other life-forms on the earth today. Going green means leading lifestyle that's not just more beneficial for people who do it, but for their surroundings as well [1]. All the green products that we use provide benefit for the people not just economically, but also socially and environmentally, which means that the green products preserve the public health in general [2]. The more people decide to use green products the better it is for everyone around them. When we use products that are natural, it is much better for our well being [3].

The rapid economic growth in the past years have witnessed increasing consumers' consumption worldwide causing environmental deterioration through over-consumption and utilization of natural resources [4]. With technological development, there has been an increase in industrial activities that have directly and indirectly affected the environment [5]. The environment has been extensively exploited, resulting in climate change, global warming, pollution, environmental exploitation, ozone layer depletion etc [6]. Such problems have raised concerns about protecting our climate, which has led to the idea of going green [7]. Government has adopted policies to save the world from further deterioration, so businesses have chosen the environment friendly practices. Creation of goods that are environmentally friendly is one of the first initiatives taken to resolve this environmental problem [8].

A consumer's concern towards a safe environment has been frequently increasing. Nowadays, the market contains a wide variety of products that are environmentally safe [9]. The purchase behavior of the consumers depends on the beliefs and the consciousness of the consumers towards their health and environmental concern [10]. The decision to purchase these products depends on the behavior which the consumers adopt towards green products [11]. Consumers who are

concerned with the environment and are knowledgeable about the environmental issues when shopping try to purchase only eco-friendly products. Increasing -environmental concerns and awareness of eco-friendly products among consumers have resulted in their green buying behavior [12].

One can only hope that change is the only thing that is constant, once we decide protecting our nature thereby ensuring our own safe future and then the rest of it follows [10]. Let's start using eco-friendly products for a start now and turn the vision of a lovely environment in the future a reality.

1.1 Objectives of the Study

1. To assess the demographic and socio economic status of urban and rural consumers.
2. To analyze the attitude of the consumers.
3. To compare the attitude of the consumers between the gender and locality.
4. To assess the association between the demographic variables and attitude of the consumers.

2. METHODOLOGY

The study was conducted during 2018-20. The exploratory research design was adopted to conduct the study. The data was collected by using structured interview questionnaire. A total 600 consumers were met personally to conduct interview from Dharwad and Belagavi district respectively. Five statements were used to assess the attitude under each category of products, totally 27 statements were used to assess the attitude. The five point likert scale varying from strongly agree to strongly disagree was used to analyze the attitude of the consumers towards each statement. Frequency, percentage and mean scores were used to interpret the results of demographic variables and attitude among the consumers.

3. RESULTS AND DISCUSSION

The age of the respondents was grouped into three categories. The majority of the urban consumers (43.00%) were in the age group of 22-29 years, followed by more than 29 years (30.00%) and less than 22 years (27.00%). More than half of the selected consumers (57.67%) were graduates followed by 39.00 per cent were studied upto 12th standard and only 3.33 per cent were post graduates. More than one third of the urban consumers were students (32.67%), followed by unemployed (21.66%), self employed (21.00%), employed in private sector (13.33%) and employed in government sector (11.33%). Majority of the urban consumers (83.00%) had medium family income of ₹ 7,380/- to 51,780/- and only 17.00 per cent of them had high income of more than ₹ 51,780/- as presented in the Table 1.

In rural area majority of the consumers (48.33%) belonged to 22-29 years age group, followed by less than 22 years (27.33%) and more than 29 years (23.33%). More than half of the consumers (54.00%) were studied upto 12th standard, followed by graduates (43.33%) and only 2.67 per cent were post graduates. Around one third

of the selected rural consumers (32.67%) were unemployed, followed by students (27.67%), self employed (16.67%), private employees (16.00%) and only seven per cent were government employees. More than ninety per cent of the rural consumers (91.33%) had medium family income of ₹ 7,380/- to 51,780/- followed by 8.33 per cent of them had high income of more than ₹ 51,780/- and only 0.33 per cent consumers in rural area had low family income.

The distribution of the consumers according to their socio economic status categories as per the Aggarwal [6] scale was represented in the Fig 1. It was clear from the data that 64.00 per cent of the urban consumers belonged to upper middle socio economic category, followed by lower middle (28.66%) socio economic category and only 7.33 per cent of the urban consumers belonged to high socio economic category.

A glance at Fig 1. shows that half of the selected rural consumers (50.33%) belonged to upper middle socio economic category, followed by lower middle socio economic category (46.33%) and only 3.00 per cent of the respondents belonged to high socio economic category.

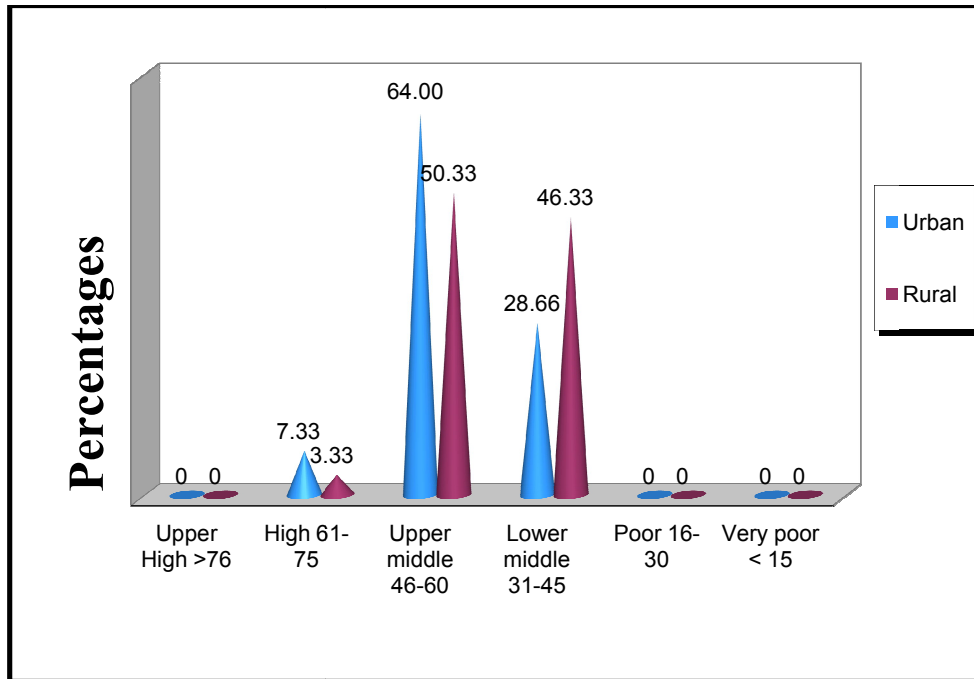


Fig. 1. Socio economic status of the selected urban and rural consumers

Table 1. Distribution of respondents based on their socio-personal characteristics N=600

Variables	Classification	Urban (n=300)			Rural (n=300)		
		Male	Female	Total	Male	Female	Total
Age (yrs)	<22	39 (26.00)	42 (28.00)	81 (27.00)	36 (24.00)	46 (30.67)	82 (27.33)
	22-29	62 (41.33)	67 (44.67)	129 (43.00)	62 (41.33)	83 (55.33)	145 (48.33)
	>29	49 (32.67)	41 (27.33)	90 (30.00)	52 (34.67)	21 (14.00)	73 (23.33)
Education	Upto 12 th std	61 (40.66)	56 (37.33)	117 (39.00)	65 (43.33)	97 (64.66)	162 (54.00)
	Graduate	84 (56.00)	89 (59.33)	173 (57.67)	78 (52.00)	52 (34.67)	130 (43.33)
	Post Graduate	5 (3.33)	5 (3.33)	10 (3.33)	7 (4.67)	1 (0.67)	8 (2.67)
Occupation	Student	35 (23.33)	63 (42.00)	98 (32.67)	58 (38.67)	25 (16.67)	83 (27.67)
	Unemployed	15 (10.00)	50 (33.33)	65 (21.66)	20 (13.33)	78 (52.00)	98 (32.67)
	Self employed	63 (42.00)	0 (0.00)	63 (21.00)	33 (22.00)	17 (11.33)	50 (16.67)
	Private sector	15 (10.00)	25 (16.67)	40 (13.33)	28 (18.67)	20 (13.33)	48 (16.00)
	Government sector	22 (14.67)	12 (8.00)	34 (11.33)	11 (7.33)	10 (6.67)	21 (7.00)
Monthly Family Income (₹)	Low (<7380)	-	-	-	-	1 (0.66)	1 (0.33)
	Medium (7380-51780)	110 (73.33)	139 (92.66)	249 (83.00)	140 (93.33)	134 (89.33)	274 (91.33)
	High (>51780)	40 (26.67)	11 (7.33)	51 (17.00)	10 (6.66)	15 (10.00)	25 (8.33)

3.1 Attitude of the Consumers towards Green Products

Attitude refers to thinking, thoughts and persuasion of the respondents. The attitude of the consumers towards green products was measured by using five point Likert scale for all five categories selected for the study.

3.2 Attitude of the Consumers towards General Green Products

The mean scores of the attitude of the consumers' about general green products were depicted in the Table 2. A glance into the scores of attitude of urban consumers towards general green products had favourable attitude (25.76) compared to rural consumers (24.10) towards general green products. The highly significant difference was found between the two localities selected for the study.

Both in urban and rural areas female consumers had scored better on attitude towards general green products (25.89 and 24.84 scores respectively) compared to male consumers (25.60 and 23.36 respectively). However the significant difference was found among the male and female consumers in rural area with respect to attitude towards the general green products.

The results are in contradictory with the results found by Ali et al. [13] that there was no difference of attitude between male and female consumers as the data was collected from the highly educated respondents. Kumar and Sharma [14] found that the consumers had strongly agreeable attitude towards the green products.

3.3 Attitude of the Consumers towards Energy Saving Appliances

The attitude of the consumers towards energy saving appliance was presented in the Table 3. Location wise comparison of attitude towards energy saving appliances reveals that the urban consumers (18.13) had scored better on attitude compared to rural consumers (16.93%). The highly significant difference was observed between the attitude of urban and rural consumers at 0.01 level towards the energy saving appliances.

The gender wise comparison of attitude towards energy saving appliances showed that in both

urban and rural area female consumers had favourable attitude (18.57 and 17.87 respectively) compared to male consumers (17.68 and 15.98 respectively). The statistical analysis showed the significant difference of attitude among the urban male and female respondents. The highly significant difference was observed among the rural male and female respondents about the attitude at 0.01 level towards energy saving appliances.

Jabeen et al. [15] reported similar results that majority of the students agreed that the saving of energy can help to improve their quality of life as they think that the extra amount of money can be saved from the energy bill. Respondents had positive attitude towards using of energy efficient appliances. Neutral attitude was observed among the students regarding energy consumption in order to conserve energy. Yasin et al. [16] also found positive attitude towards energy conservation.

3.4 Attitude of the Consumers towards Green Food Products

The attitude of the consumers towards green food products was represented in the Table 4. The urban consumers had more favourable attitude (19.02) compared to rural consumers (17.77) towards green food products. The highly significant difference was observed between the urban and rural consumers at 0.01 level of significance.

Gender wise total mean score results depicted that the female consumers had favourable attitude (19.25 and 18.51 respectively) compared to male consumers (18.79 and 17.03 respectively). Highly significant difference of attitude was observed among the rural male and female consumers towards the green food products at 0.01 level as depicted in the Table 4.

The results are in opposition with the results obtained by Tsakiridou et al. [17] who presented that there is no difference between consumers attitude towards green food products with respect to gender. Islam and Zabin [18] found that the consumers had positive attitude towards green food products. Because the consumers think that the organic food is good for the health, prevents diseases, better to taste and increases immunity among them.

Table 2. Mean scores of attitude of the urban and rural consumers towards general green products N=600

Statements	Urban (n=300)			Rural (n=300)		
	Male	Female	Total	Male	Female	Total
1. I understand the information on eco-friendly packaging	3.84	3.47	3.66	3.35	3.41	3.38
2. I pay attention to eco-friendly product advertising	3.72	4.02	3.87	3.21	3.45	3.33
3. Purchasing of green products is good for environment and health [19].	3.87	4.23	4.05	3.64	3.99	3.82
4. I am satisfied with most of eco-friendly products I bought	3.67	4.08	3.88	3.44	3.82	3.63
5. Pollution does not affect my personal life [20]	3.01	2.23	2.62	3.00	2.76	2.88
6. Recycling helps to the natural resources conservation	3.79	4.13	3.96	3.59	3.78	3.68
7. I would like to have more knowledge about organic products before shopping	3.70	3.73	3.72	3.13	3.63	3.38
Total	25.60	25.89	25.76	23.36	24.84	24.10
't' value	0.51 NS			2.17*		
't' value between urban and rural	3.73**					

Table 3. Mean scores of attitude of the urban and rural consumers towards energy saving appliances N=600

Statements	Urban (n=300)			Rural (n=300)		
	Male	Female	Total	Male	Female	Total
1. LED bulbs are the most energy efficient bulb in the market	3.50	3.83	3.67	2.95	3.43	3.19
2. Electrical appliances with energy stars are of expected standard quality.	3.55	3.63	3.59	3.28	3.61	3.44
3. Making choices in the energy efficiency in the home is complex decision.	3.25	3.22	3.23	2.99	3.36	3.18
4. Energy saving effort can improve the quality of environment [21].	3.80	4.26	4.03	3.45	3.93	3.69
5. Appliances with high energy rating are expensive	3.58	3.63	3.61	3.31	3.54	3.43
Total	17.68	18.57	18.13	15.98	17.87	16.93
't' value	1.84*			3.90**		
't' value between urban and rural	3.46**					

Table 4. Mean scores of attitude of the urban and rural consumers towards green food products N=600

Statements	Urban (n=300)			Rural (n=300)		
	Male	Female	Total	Male	Female	Total
1. Green food products are healthier [22]	4.26	4.15	4.20	3.36	3.86	3.61
2. Organic foods are safe and nutritious.	3.91	4.09	4.00	3.49	3.87	3.68
3. I will check for certification before purchasing to know the content of additives in permissible limits.	3.63	3.49	3.56	3.55	3.61	3.58
4. Lot of claims made by companies/ sellers of green foods is unbelievable.	3.28	3.49	3.38	3.28	3.45	3.36
5. Kitchen/rooftop gardening is a green initiative for growing fruits and vegetables.	3.71	4.03	3.87	3.35	3.72	3.54
Total	18.79	19.25	19.02	17.03	18.51	17.77
't' value	0.91NS			2.57**		
't' value between urban and rural	3.22**					

3.5 Attitude of the Consumers towards Green Cosmetics

The attitude of the consumers towards green cosmetics was represented in the Table 5. The urban consumers showed favourable attitude (17.77) compared to rural consumers (17.01) towards green cosmetics. The significant difference of attitude was observed among the urban and rural consumers at 0.05 level.

In urban area male consumers had favourable attitude (17.85) compared to female consumers (17.68). In rural area female consumers had favourable attitude (17.80) compared to male consumers (16.22) towards green cosmetics. The highly significant difference was observed among rural male and female respondents at 0.01 level.

The results are on par with the results obtained by Matic and Puh [23] who explained that the respondents who had higher intention to purchase natural cosmetics had positive attitude towards the natural cosmetic products. Fernando and Hennayake [24] found that majority of consumers had positive attitudes towards green cosmetics products.

3.6 Attitude of the Consumers towards Eco Friendly Textiles

It can be noted from the Table 6 that the urban consumers showed favourable attitude (18.65) compared to rural consumers (17.28) towards ecofriendly textiles. Highly significant difference was found between the attitude of the urban and rural consumers towards eco friendly textiles.

With respect to gender both in urban and rural locality female consumers had favourable attitude (18.68 and 18.43 respectively) compared to male consumers (18.61 and 16.10 respectively). The statistical analysis showed highly significant difference of attitude among the rural male and female consumers towards the eco friendly textile products as depicted in the Table 6.

The results revealed by Hustvedt and Dickson [25] support the present study that the consumers had favorable attitude towards organic textile products, which the consumers perceived as beneficial for their health. Abrar et al. [26] opined that health consciousness, consumer knowledge, environmental concern and personal norms had a positively influenced

the consumer attitude towards the ecofriendly textiles.

3.7 Comparison of Attitude of the Selected Consumers about Green Products

The comparison of attitude of the selected consumers towards green products was depicted in the Table 7(a). From the mean values of the Table 7 (a) it can be noted that urban consumers had favourable attitude (99.33) compared to rural consumers (93.07). The highly significant difference of attitude was observed between the urban and rural consumers about green products at 0.01 level significance.

The female consumers in both the locality had showed favourable attitude (100.07 and 97.45 respectively) compared to male consumers (98.53 and 88.69 respectively). The highly significant difference of attitude was observed among the rural male and female consumers towards the green products at 0.01 level as depicted in the Table 7(a).

The Table 7(b) reports two factor ANOVA results for the attitude of consumers towards the green products. Results of the Table reveal that the highly significant difference was observed between the gender and between the locations at 0.01 level. The significant difference was observed between the gender and location at 0.05 level of significance. The results are similar with the study of Savita & Kumar [27].

Association between demographic variables and attitude of urban and rural consumers about green products was depicted in the Table 8.

3.8 Association between Demographic Variables and Attitude of Urban Consumers

From the Table 8 represents, in urban locality nearly half of the consumers (50.62%) in the age group of less than 22 years had more favourable attitude, followed by more than 29 years aged consumers (36.67%) and consumers belonged 22-29 years age category (34.88%). Nearly equal per cent of the consumers belonged to more than 29 years (41.11%) and 22-29 years aged consumers (41.09%) had favourable attitude respectively, followed by less than 22 years age group category (34.57%). Nearly less than one fourth of the consumers belonged to

22-29 years reported unfavourable attitude, followed by more than 29 years age group (22.22%) and less than 22 years age group (14.81%). The association was found non significant between age and attitude of the urban consumers towards green products.

The more favourable attitude was observed among the half of the post graduate urban consumers (50.00%), followed by consumers' educated upto 12th standard (46.15%) and graduates (34.68%). The favourable attitude was found among almost equal per cent of the graduates (39.88%) and consumers' educated upto 12th standard (39.32%) respectively, followed by post graduates (30.00%). Nearly one fourth of the graduate consumers (25.43%) reported unfavourable attitude, followed by post graduate consumers (20.00%) and consumers educated upto 12th standard (14.53%). The non significant association was observed between education and attitude of the urban consumers towards green products as presented in the Table 8.

With respect to occupation, the more favourable attitude was noticed among 46.15 per cent of the unemployed consumers, followed by student consumers (42.86%), self employed consumers (39.68%), private employees (35.00%) and government employees (23.53%). The favourable attitude towards green products was observed among the 45.00 per cent of the private employees, followed by government employees (44.12%), unemployed (40.00%), self employed (38.10%) and students (35.71%). The unfavourable attitude was found among nearly one third of the government employees (32.35%) followed by self employed consumers (22.22%), students (21.43%), private employees (20.00%) and unemployed consumers (13.85%) towards green products. The significant association was found between occupation and attitude of the urban consumers towards green products at 0.05 level.

Nearly equal per cent of the consumers in urban area with middle income (39.76%) and high income (39.22%) reported more favourable attitude respectively. In the same manner nearly equal per cent of the consumers with middle income (39.36%) and high income (39.22%) reported medium attitude respectively. The unfavourable attitude was observed among the 21.57 per cent of the consumers with high income, followed by middle income group of consumers (20.88%). There was non significant

association between the income and attitude of the urban consumers towards green products as depicted in the Table 8.

From the Table it can be noted that the half of the consumers with high socio economic status had more favourable attitude towards green products, followed by consumers with upper middle socio economic status category (39.06%) and lower middle socio economic status category (38.37%). Nearly forty per cent of the urban consumers (40.62%) with lower middle socio economic category had favourable attitude, followed by lower middle socio economic status (39.53%) and high socio economic status (27.27%). The unfavourable attitude was reported by 22.72 per cent of the consumers with high socio economic status, followed by upper middle socio economic status (21.35%) and lower middle socio economic status (19.76%). The association was non significant between socio economic status and attitude of the urban consumers towards green products as depicted in Table 8.

Overall nearly forty (39.67% and 39.33%) per cent of the urban consumers had high and medium attitude, followed by 21.00 per cent had low attitude towards green products.

3.9 Association between Demographic Variables and Attitude of Rural Consumers

From the Table 8 it was observed that in rural area, the consumers belonged to less than 22 years age category showed more favourable attitude (37.80%) towards green products, followed by consumers between 22-29 years age group (29.66%) and more than 29 years age group (26.03%). Forty per cent of the rural consumers belonged to 22-29 years age group showed favourable attitude, followed by 34.25 per cent belonged to more than 29 years age category and less than 22 years age group (31.71%). The unfavourable attitude was observed among more than 29 years aged consumers, followed by nearly equal per cent of the consumers belonged to age group less than 22 years (30.49%) and 22-29 years (30.34%). There was no significant association between age and attitude of the consumers towards green products in rural area. With respect to education, the more favourable attitude was observed among more than thirty per cent of the graduates (32.31%), followed by consumers educated upto 12th standard (30.86%) and post graduate

Table 5. Mean scores of attitude of the urban and rural consumers towards green cosmetics N=600

Statements	Urban (n=300)			Rural (n=300)		
	Male	Female	Total	Male	Female	Total
1. Green cosmetics can be used to maintain and promote health [28]	3.85	3.90	3.88	3.21	3.69	3.45
2. I worry that there are chemicals in my cosmetic products	3.65	3.61	3.63	3.13	3.53	3.33
3. I use biodegradable soaps or detergents	3.27	3.09	3.18	3.31	3.52	3.41
4. I am willing to pay a premium price for an eco-friendly cosmetic product	3.63	3.59	3.61	3.26	3.39	3.33
5. I believe in the information on eco-friendly cosmetic products packaging	3.45	3.49	3.47	3.31	3.67	3.49
Total	17.85	17.68	17.77	16.22	17.80	17.01
't' value	0.37			3.04**		
't' value between urban and rural	2.15*					

Table 6. Mean scores of attitude of the urban and rural consumers towards eco-friendly textiles N=600

Statements	Urban (n=300)			Rural (n=300)		
	Male	Female	Total	Male	Female	Total
1. I am willing to pay extra for an eco piece of fashion compared to non-eco fashion.	3.92	3.77	3.84	3.11	3.71	3.41
2. Eco-friendly textiles are a new generation status symbol	3.60	3.66	3.63	3.21	3.63	3.42
3. I am concerned about the impact of clothing production on the environment [19]	3.69	3.84	3.77	3.31	3.74	3.52
4. Eco-Friendly clothes are more comfortable than other clothing alternatives	3.63	3.85	3.74	3.23	3.74	3.49
5. It is the good idea to recycle textile waste.	3.77	3.56	3.66	3.24	3.61	3.43
Total	18.61	18.68	18.65	16.10	18.43	17.26
't' value	0.13			3.87**		
't' value between urban and rural	3.48**					

Table 7(a). Comparison of attitude among the rural and urban consumers towards green products N=600

Products	Urban (n=300)			Rural (n=300)		
	Male	Female	Total	Male	Female	Total
General green products	25.60	25.89	25.76	23.36	24.84	24.09
Energy saving appliances	17.68	18.57	18.13	15.98	17.87	16.93
Food products	18.79	19.25	19.02	17.03	18.51	17.77
Green cosmetics	17.85	17.68	17.77	16.22	17.80	17.01
Green textile	18.61	18.68	18.65	16.10	18.43	17.26
Overall	98.53	100.07	99.33	88.69	97.45	93.07
t' test values	0.71 ^{NS}			3.53**		
t' value between urban and rural	3.76**					

** Significant @ 1% level of significance * Significant @ 5% level of significance NS-Non Significant

Table 7(b). Two factor ANOVA result for attitude of consumers about green products

Source of Variation	SS	Df	MS	F	P-value
Between gender	4162.291	1	4162.291	10.294**	.001
Between location	5892.976	1	5892.976	14.575**	.000
Between gender and location	2059.096	1	2059.096	5.093*	.024

** Significant @ 1% level of significance * Significant @ 5% level of significance NS-Non Significant

consumers (12.50%). Half of the post graduate consumers reported favourable attitude, followed by graduate consumers (40.00%) and consumers educated upto 12th standard (32.72%). More number of post graduate consumers reported unfavourable attitude, followed by consumers' educated upto 12th standard (36.42%) and graduate consumers (27.69%). The non significant association was observed between education and attitude of the rural consumers towards green products as shown in the Table 8

More than forty per cent of the student consumers (42.17%) in rural area had more favourable attitude towards green products, followed by unemployed consumers (37.76%), government employees (19.05%), private employees (18.75%) and self employed consumers (16.00%). The favourable attitude was observed among majority of the unemployed consumers (43.88%), followed by student consumers (36.14%), private employees (35.42%), government employees (28.57%) and self employed consumers (26.00%). The unfavourable attitude was found among 58.00 per cent of the self employed consumers, followed by government employees (52.38%), private employees (45.83%), students (21.69%) and unemployed (18.37%). There was highly significant association between occupation and attitude of the rural consumers towards green products as presented in Table 8.

The only one rural consumer (100.00%) who had low income showed more favourable attitude towards green products followed by high income group of consumers (36.00%) and middle income group of consumers (30.29%). More than half of the consumers (52.00%) with high income showed favourable attitude (35.04%), followed by middle income category (35.04%). The unfavourable attitude was found among more than one third of the consumers (34.67%) with middle income category, followed by high income group of consumers (12.00%) towards green products. The non significant association was observed between income and attitude of the rural consumers towards green products as reported in the Table 8.

The consumers with lower middle socio economic status showed more favourable attitude (32.37%) followed by upper middle socio economic status category of consumers (30.46%) and consumers with high socio economic status (20.00%). More number of consumers (38.41%) with upper middle socio economic status reported favourable attitude, followed by lower middle socio economic status consumers (34.53%) and consumers with high socio economic (30.00%). Half of the consumers reported unfavourable attitude, followed by lower middle socio economic status consumers (33.09%) and upper middle socio economic status (31.13%). The non significant association was found between socio economic status and

Table 8. Association between demographic variables and attitude of urban and rural consumers about green products N=600

Variables	Classification	Urban Attitude (n=300)			Total	Modified χ^2	Rural Attitude (n=300)			Total	Modified χ^2
		Unfavourable	Favourable	More favourable			Unfavourable	Favourable	More favourable		
Age (yrs)	<22	12 (14.81)	28 (34.57)	41 (50.62)	81(100.00)	3.39	25(30.49)	26(31.71)	31(37.80)	82 (100.00)	3.94
	22-29	31(24.03)	53(41.09)	45 (34.88)	129(100.00)		44(30.34)	56(40.00)	43(29.66)	145 (100.00)	
	>29	20(22.22)	37(41.11)	33(36.67)	90 (100.00)		29(39.73)	25(34.25)	19(26.03)	73 (100.00)	
	Total	63 (21.00)	11(39.33)	119 (39.67)	300(100.00)		98 (32.67)	109(36.33)	93 (31.00)	300(100.00)	
Education	Upto 12 th std	17(14.53)	46(39.32)	54(46.15)	117 (100.00)	2.67	59(36.42)	53(32.72)	50(30.86)	162 (100.00)	4.17
	Graduate	44(25.43)	69(39.88)	60(34.68)	173 (100.00)		36(27.69)	52(40.00)	42(32.31)	130 (100.00)	
	Post Graduate	2(20.00)	3(30.00)	5(50.00)	10 (100.00)		3(37.50)	4(50.00)	1(12.50)	8 (100.00)	
	Total	63 (21.00)	118(39.33)	119 (39.67)	300(100.00)		98 (32.67)	109(36.33)	93 (31.00)	300(100.00)	
Occupation	Student	21(21.43)	35(35.71)	42(42.86)	98 (100.00)	11.01	18(21.69)	30(36.14)	35(42.17)	83 (100.00)	45.30**
	Unemployed	9(13.85)	26(40.00)	30(46.15)	65 (100.00)		18(18.37)	43(43.88)	37(37.76)	98 (100.00)	
	Self employed	14(22.22)	24(38.10)	25(39.68)	63 (100.00)		29(58.00)	13(26.00)	8(16.00)	50 (100.00)	
	Private sector	8(20.00)	18(45.00)	14(35.00)	40 (100.00)		22(45.83)	17(35.42)	9(18.75)	48 (100.00)	
	Government sector	11(32.35)	15(44.12)	8(23.53)	34(100.00)		11(52.38)	6(28.57)	4(19.05)	21 (100.00)	
	Total	63 (21.00)	118(39.33)	119 (39.67)	300(100.00)		98 (32.67)	109(36.33)	93 (31.00)	300(100.00)	
Monthly family income (₹)	Low	-	-	-	-	0.07	0	0	1	1 (100.00)	7.89
	Medium	52(20.88)	98(39.36)	99(39.76)	249 (100.00)		95(34.67)	96(35.04)	83(30.29)	274 (100.00)	
	High	11(21.57)	20(39.22)	20(39.22)	51(100.00)		3(12.00)	13(52.00)	9(36.00)	25 (100.00)	
	Total	63 (21.00)	118(39.33)	119 (39.67)	300(100.00)		98 (32.67)	109(36.33)	93 (31.00)	300(100.00)	
Socio economic status	Lower middle 31-45	17(19.76)	34(39.53)	33(38.37)	86 (100.00)	1.63	46(33.09)	48(34.53)	45(32.37)	139(100.00)	2.17
	Upper middle 46-60	41(21.35)	78(40.62)	75(39.06)	192(100.00)		47(31.13)	58(38.41)	46(30.46)	151(100.00)	
	High 61-75	5(22.72)	6(27.27)	11(50.00)	22 (100.00)		5(50.00)	3(30.00)	2(20.00)	10 (100.00)	
	Total	63 (21.00)	118(39.33)	119 (39.67)	300(100.00)		98 (32.67)	109(36.33)	93 (31.00)	300(100.00)	

** Significant @ 1 % level of significance * Significant @ 5 % level of significance NS-Non Significant

Table 9. Factors influencing attitude among the consumers-Multiple linear regression analysis

Locality	Constant	Age	Education	Income	Occupation	Socio Economic Status	R²
Urban	113.869	0.052 (0.351)	1.707 (1.215)*	1.986 (1.154)*	0.094 (0.133)	0.058 (0.309)	0.10
Rural	90.922	0.055 (0.399)	1.795 (1.904)*	1.480 (0.785)	1.485 (1.559)*	0.027 (0.108)	0.18
Overall	97.530	0.24 (0.238)	0.166 (0.141)	1.874 (1.454)**	0.628 (1.090)*	0.141 (0.945)	0.08

*Figures in the parentheses indicates the calculated t-values
The values are significant at 5% and 1% level of significance

attitude of the rural consumers towards green products.

Overall, more than one third (36.33%) of the rural consumers had more favourable attitude, followed by unfavourable attitude (32.67%) and favourable attitude (31.00%) towards green products.

Abisha and Kannan [29] also found similar results that the attitude was found to be medium among the all age group of consumers, nature of the family, family size, family income. The attitude was found to be high among male consumers, rural consumers, married consumers, graduates and business personnel.

Table 9 depicts the factors influencing the attitude of the consumers towards green products.

A glance into Table 9 reported that the variables education and income significantly influence the attitude of the urban consumers towards green products at 0.05 level. The variables age, occupation and socio economic status of the consumers did not influenced significantly to the attitude of the urban consumers. In total, the independent variables contributed 10 per cent to the attitude of the urban consumers towards green products.

As far as rural locality was concerned, it was observed that the variables education and occupation significantly influenced the attitude of the consumers towards green products at 0.05 level. The variables age, income and socio economic status of the consumers did not influenced significantly to the attitude of the rural consumers. In total, the independent variables contributed 18 per cent to the attitude of the rural consumers towards green products as depicted in the Table 9.

Table 9 reveals that the income of the selected consumers had shown highly significant influence on the attitude of the consumers towards green products at 0.01 level, whereas, occupation of the consumers influenced the attitude of the consumers at 0.05 level. The variables age, education and socio economic status did not influenced significantly to the attitude of the selected consumers. In total, the independent variables contributed 8.00 per cent to the attitude of the consumers. Similar results were found by Zulfiqar and Shafaat [30].

4. CONCLUSION

- Both in urban and rural areas majority of the consumers belonged 22-29 years age group and more than half of the consumers selected for study were graduates in urban area and in rural area majority were studied upto 12th standard.
- With regard to occupation nearly one third of the consumers selected for the study were students in urban area, selected consumers were unemployed in rural area. Majority of the consumers had medium family income of rupees 7,380/-51,780/-per month.
- Maximum number of the selected consumers belonged to upper middle socio economic category.
- The female consumers in both the locality had favourable attitude towards green products compared to male consumers
- There was highly significant difference between the gender and between the locations at 0.01 level. There was significant difference between the gender and location at 0.05 level of significance.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

ACKNOWLEDGEMENTS

Author Bhavini. B. Patil acknowledges KSTePS, Department of Science and Technology, Government of Karnataka for assistance through 'DST Scholarship for Ph.D. students.'

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Freeman F. Environment and human health: a threat to all. *Environmental Manage Health*. 2008;8(2):51-66.
2. Anvar M, Venter M. Attitudes and purchase behaviour of green products among generation Y consumers in South Africa, *Mediterranean Soc Sci*. 2014;5 (21):183-194.

3. Fernando M, Hennayake Y. Study of consumer attitudes towards green cosmetic products and its impact on consumer purchase intention. *Int J Scientific and Res Pub.* 2017;7(2):156-161.
4. Chen TB, Chai LT. Attitude towards environment and green products: consumers perspective. *Manage Sci Eng.* 2010,4(2): 27-39.
5. Singh S, Singh D, Thakur KS. Consumer attitude and purchase intention towards green products in the FMCG sector. *Pacific Business Review Int.* 2014;7(6): 27-46.
6. Aggarwal OP, Bhasin SK, Sharma AK, Chhabra P, Aggarwal K, Rajoura OP. A new instrument (Scale) for measuring the socio economic status of a family preliminary study. *Ind J Commu Med.* 2005;30(4)
7. Pillai P, Junare SO. A study on consumers perception towards eco-friendly products in Ahmedabad. *Int J Res IT and Manage.* 2016,6(7):14-28.
8. Gan C, Zhiyou C, Tran MC, Cohen DA, Xiang W. Consumer attitudes towards the purchase of organic products in China. *Int J Busi and Econ.* 2014;15(2):117-144.
9. Rehman AA, Kirmani MD. Demographic differences in Indian consumers' green purchase attitude. Paper presented in: *Int. Conf. Res. Marketing, Indian Inst. Tech., New Delhi.* 2014;21-22:11.
10. Rekha BM, Gokila K. A study on consumer awareness, attitude and preference towards herbal cosmetics products with special reference to Coimbatore city. *Int. J. Interdisciplinary and Multidisciplinary Stu.* 2015;2(4):96-100.
11. Renugadevi K, Ramya M. A study on consumers attitude towards organic products with special reference to Salem City. *Int J Interdiscipl Res Arts Human.* 2017;2(2):160-162.
12. Villalba SD, Holt G, Larson CJ. Consumer's attitude towards energy conservation and energy efficiency: The role of electric rates. *Eco Econ.* 2002;4(4): 1-7.
13. Ali A, Khan A, Ahmed I. Determinants of Pakistani consumers green purchase behaviour: some insights from a developing country. *Int J Business and Soc Sci.* 2011;2(3): 217-226.
14. Kumar PS, Sharma P. Various green marketing variables and their effects on consumers buying behaviour for green products. *Int J Latest Tech in Eng Manage App Sci.* 2013,5(1):1-8.
15. Jabeen M, Mahmood N, Batool R., Assessment of energy conservation literacy in the higher education students of Abbotlabad, Pakistan. *J Res and Reflection in Edu.* 2018;12(2): 277-289.
16. Yasin S, Ghafoor A, Lodhi AS, Ahmed M, Kausar R. Green marketing: A study of consumers' attitude towards environment friendly products. *Lasbela, U J Sci Tech.* 2015,4(1):109-116.
17. Tsakiridou E, Zotos Y, Boutsouki C, Mattas K. Attitudes and behaviour towards organic products: an exploratory study. *Int J Retail Distribution Manage.* 2008,36(2):158-175.
18. Islam S, Zabin I. Consumer's attitude towards purchasing green food, *European J Bus Manage.* 2013,5(9):35-43.
19. Uddin SF, Khan MN. Green purchasing behaviour of young Indian consumers: An exploratory study. *Global Business Review.* 2016;17(6):1469-1479.
20. Aulina L, Yuliati E. The effects of green brand positioning, green brand knowledge and attitude towards green brand on green products purchase intention. *Adv. in Econ. Business Manage. Res.* 2017;36(5):548-557.
21. Bhattacharya S. Consumer attitude towards green marketing in India. *J Marketing Manage.* 2011;10(4):62-71.
22. Jamanal SK, Natikar KV, Halakatti SV. Development of scale to measure the attitude of consumers towards crop insurance scheme, *Asian J Agril Ext Econ Socio.* 2019;37(1):1-9
23. Matic M, Puh B. Consumers' purchase intentions towards natural cosmetics. *Econviews.* 2016;29(1): 53-64.
24. Hennayake Y. Study of consumer attitudes towards green cosmetic products and its impact on consumer purchase intention. *Int J Scientific and Res Pub.* 2017; 7(2):156-161.
25. Hustvedt G, Dickson M. Consumer Likelihood of purchasing organic cotton apparel, *J Fashion Marketing and Manage.* 2009;13(1):49-65.
26. Abrar M, Ahmad S, Bashir M, Shabbir R, Ayub M. Consumer attitude and purchase intention towards organic textile products. *Amazonia Investiga.* 2018;7(17):472- 485.
27. Savita U, Kumar N. Consumer attitude towards environment-friendly products: a

- comparative analysis. J Marketing Manage. 2010;9(1): 88- 96.
28. Jain M, Chabra D, Mankoff J, Singh A. Energy usage attitudes of urban India, 2nd International conference on ICT for Sustainability. 2014;208-217.
29. Abisha KA, Kannan P. Consumer awareness and satisfaction towards organic products in Palakkad district-Kerala. Int J Trend in Scientific Res Dev. 2018,2(2): 348-356.
30. Zulfiqar Z, Shafaat M. Green marketing: environmental concern and customer satisfaction. European J Business Manage. 2015,7(1):115-126.

© 2021 Patil and Hasalkar; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:
<http://www.sdiarticle4.com/review-history/67031>