THE IMPACT OF DEMOGRAPHIC FACTORS ON CONSUMERS' GREEN PURCHASE AWARENESS

[1]G. Rajalakshmi, Research Scholar
Associate Professor & Head, Dept. of BBA
Ethiraj College for Women, Chennai.

[2]Dr. Shrimathi Ramalingam, Supervisor and Guide,
Associate Professor & Head, Dept. of Commerce
Pachaiyappa's College for Women, Kanchipuram.

Abstract: The present study aims at identifying the impact of demographic variables on the awareness of consumers towards green purchasing. Green production and green consumption is the need of the hour to protect the environment from further deterioration. Green production can be increased only when there is an increase in green consumption. On the other hand green consumption can be enhanced only when the people are aware of green purchasing and its environmental benefits. Study of demographic variables always helps the marketers to identify the awareness, perception and behavior of the consumers.

Key words: green purchasing, green terms, green attributes, green products

1. Introduction:

It is essential for every individual to have concern towards the environment. Unless this is inculcated strongly in every human being it is difficult to safe guard our environment from the various threats faced by it. Green purchasing is an effective weapon to fight against environmental degradation. Various studies have already been done to study the influence of demographic factors on green purchasing and have revealed varied results. Most of them have dealt only with the perception of the consumers towards green products and green purchase intention and behavior. Very less academic research has been done on the demographic impact on consumer awareness towards green purchasing.

Thus an attempt has been made to study the impact of demographic variables on consumers' awareness of green purchasing. In particular, the research paper focuses on the demographic factors, namely, gender, age, marital status, educational qualification, occupation and family monthly income.

2. Objectives of the study:

- To identify the impact of demographic variables on consumers' awareness towards green terms
- To identify the impact of demographic variables on consumers' awareness towards green attributes
- To identify the impact of demographic variables on consumers' awareness towards green products

3. Research Model:
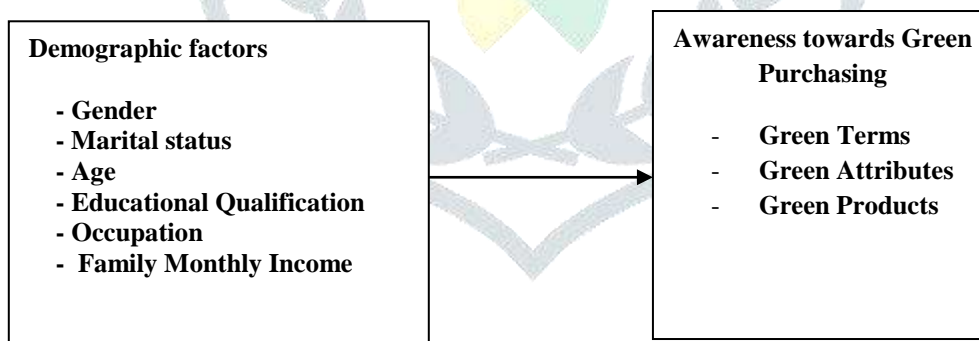
Fig. 1 Research Model on the impact of Demographic factors on Green Purchase Awareness of consumers

4. Concepts

4.1 Green purchasing

Green products are those products which have less or no negative impact on the environment and purchase of those green products is referred to as green purchasing. The products may be made of natural resources which are biodegradable or renewable. These products may be recyclable and reusable and may be packed with minimum materials to avoid accumulation of solid waste and depletion of resources. They may conserve less energy during consumption. The present study has identified consumers' awareness on green purchasing based on their awareness towards green terms, green attributes and green products.

4.2 Green terms

Green products cannot be defined without using certain green terms. Unless the consumers are aware of these green terms, they may not be able to understand the concept of green purchasing clearly. The firms which are interested in exhibiting themselves as green firms dealing with green products emphasize on relating themselves with one or more of these green terms in their logo, eco labels and green advertisements. The present study has identified the awareness of the consumers towards five important green terms namely renewable, reusable, recyclable, bio degradable, and non toxic substances.

4.3 Green attributes

Green attributes play an important role in deciding whether a particular product contributes to greenness or not. As already mentioned for green terms, unless the consumers are aware of the green attributes, they may not be able to understand the concept of green purchasing clearly. In order to identify the awareness of consumers towards green attributes, various questions have been included in the second part of the questionnaire.

4.4 Green products

Green products are those products which have less or no negative impact on the environment during their production and consumption. Manufacturers have already started realizing the need for green technology and green production and now it is the responsibility of the consumers to identify and buy the genuine green products. This definitely requires a proper awareness on green products among the consumers.

5. Literature Review:

Golnaz Rezai, Phuah Kit Teng, Zainalabidin Mohamed and Mad Nasir Shamsudin (2012) in their study on "Consumers' awareness and consumption intention towards green foods" found that selected socio demographic variables like race, geographical area, age, education level and income have a strong impact on consumers' awareness and perception towards green food consumption in Malaysia.

Caroline Fisher, Shristy Bashyal and Bonnie Bachman (2012) in their study on "Demographic impacts on environmentally friendly purchase behaviors" has summarized the related research to explain the impact of demographic factors on environmental purchasing. The study also identified environmentally friendly behaviors of consumers and the extent to which they are influenced by demographic variables.

Dr. T. Vasanthi and N.Kavitha (2016) in their study on "Consumer awareness and purchasing behaviour of green products- An analytical study" has made an attempt to identify demographic and psychographic background of the consumers and their perception towards green products. The study also revealed that there is significant association among the demographic variables namely age, geographical area, educational qualification and income and their awareness towards green products.

Preeti Pillai and Dr. S. O. Junare (2016) in their study on "Consumers' Perception towards Eco-friendly Products in Ahmedabad" found that only annual family income of the respondents had significant influence on their perception towards eco-friendly products. Whereas the other demographic factors such as age, gender, educational qualification and occupation do not have significant influence on their perception towards eco-friendly products.

Roslin Abdul Rahim, Zuraidah Sulaiman, Thoo Ai Chin, Mohd Shoki Mohd Arif and Mohd Hakim Abdul Hamid (2017), in their study on "Consumers'Demographic Profile Influence on Green Purchase Intention" identified that among the various demographic variables studied; only gender has significant positive relationship with green purchase intention.

6. Research Methodology:

Data has been collected with the help of a well structured questionnaire distributed among 80 respondents. The demographic details of the consumers were given more importance as the study dealt with the impact of demographic variables. The second section had questions to collect information about consumers' awareness towards green purchasing. For the purpose of data analysis and interpretation, statistical tools such as percentage analysis, t- test and ANOVA has been used.

7. Analysis and Interpretation

Demographic profile of the respondents

The following table shows the demographic profile of the respondents. Percentage analysis has been used to give a clear picture of the proportion of the respondents under various demographic factors.

Table 1 Demographic profile of the respondents

Demographic factors	Classification	No. of Respondents	Percentage of Respondents
Gender	Male	40	50.0
	Female	40	50.0
	Total	80	100.0
Age in years	Below 20	18	22.5
	20-40	37	46.3
	Above 40	25	31.2
	Total	80	100.0
Marital status	Unmarried	38	47.5
	Married	42	52.5
	Total	80	100.0
Educational qualification	Upto H.Sc	16	20.0
	UG	34	42.4
	PG	15	18.8
	Professional	15	18.8
	Total	80	100.0

Occupation	Student	23	28.7
	Employed	13	16.3
	Business	21	26.3
	Professional	16	20.0
	Others	7	8.7
	Total	80	100.0
Family monthly income	Below 10000	19	23.8
	10000-20000	21	26.2
	20000-30000	18	22.5
	Above 30000	22	27.5
	Total	80	100.0

From the above table it could be found that among the respondents, 50% are male and the remaining 50% are female. Majority of them belong to the age group of 20-40 years followed by the age group above 40 years. 52.5% of them are married and the remaining 47.5% are unmarried. Most of the respondents are Under Graduates. Majority of them are students and those engaged in business and the family income of most of the respondents is above Rs. 30,000 followed by the income group between Rs. 10,000 to Rs. 20,000.

Table 2 t test for significant difference among gender towards awareness on green purchasing

Awareness towards green purchasing	Gender				t value	P value
	Male		Female			
	Mean	SD	Mean	SD		
Awareness towards Green Terms	16.75	3.25	19.02	3.45	3.035	0.003[**]
Awareness towards Green Attributes	28.95	3.78	31.38	3.79	2.863	0.005[**]
Awareness towards Green Products	32.08	4.94	35.60	5.69	2.959	0.004[**]

The above table shows that the P value is less than 0.01 for all the three factors namely awareness towards green terms, green attributes and green products. Therefore null hypothesis is rejected at 1% level of significance. Hence we could conclude that there is high significant difference between male and female on their awareness towards green terms, green attributes and green products. From the mean scores we could identify that awareness of female consumers towards green terms, green attributes and green products is higher than the male respondents.

Table 3 t test for significant difference among marital status towards awareness on green purchasing

Awareness towards green purchasing	Marital status				t value	P value
	Unmarried		Married			
	Mean	SD	Mean	SD		
Awareness towards Green Terms	17.08	3.59	18.62	3.33	1.989	0.050[*]
Awareness towards Green Attributes	29.50	4.20	30.76	3.67	1.434	0.156
Awareness towards Green Products	31.76	5.04	35.71	5.43	3.360	0.001[**]

With respect to awareness towards green terms, P value is equal to 0.05. Therefore null hypothesis is rejected at 5% level of significance which shows there is significant difference between married and unmarried on their awareness towards green terms.

With respect to awareness towards green attributes, P value is more than 0.05. Therefore null hypothesis is accepted at 5% level of significance which shows there is no significant difference between married and unmarried on their awareness towards green attributes.

With respect to awareness towards green products, P value is less than 0.01. Therefore null hypothesis is rejected at 1% level of significance which shows there is high significant difference between married and unmarried on their awareness towards green products.

From the mean scores we could identify that awareness of married consumers towards green terms, green attributes and green products is higher than the male respondents.

Table 4 ANOVA for significant difference among age group of consumers towards awareness on green purchasing

Awareness towards green purchasing	Mean/SD	Age Group in years			F value	P value
		Below 20	20-40	Above 40		
Awareness towards green terms	Mean SD	16.89 (2.32)	17.38 (3.93)	19.36 (3.24)	3.504	0.035[*]

| Awareness towards green attributes | Mean SD | 29.78 (3.92) | 29.57 (4.44) | 31.32 (3.00) | 1.597 | 0.209 |
| Awareness towards green products | Mean SD | 31.83 (4.69) | 32.49 (5.12) | 37.28 (5.44) | 8.284 | 0.001** |

With respect to awareness towards green terms, P value is less than 0.05. Therefore null hypothesis is rejected at 5% level of significance which shows there is significant difference among the age group of the respondents on their awareness towards green terms.

With respect to awareness towards green attributes, P value is more than 0.05. Therefore null hypothesis is accepted at 5% level of significance which shows there is no significant difference among the age group of the respondents on their awareness towards green attributes.

With respect to awareness towards green products, P value is less than 0.01. Therefore null hypothesis is rejected at 1% level of significance which shows there is high significant difference among the age group of the respondents on their awareness towards green products.

From the mean scores we could identify that awareness of consumers above 40 years is higher than the other age group of respondents with respect to green terms, green attributes and green products.

Table 5 ANOVA for significant difference among educational qualification of consumers towards awareness on green purchasing

Awareness towards green purchasing	Mean/SD	Educational Qualification				F value	P value
		Upto HSc	UG	PG	Professional		
Awareness towards green terms	Mean SD	15.81 (3.12)	17.68 (3.46)	18.20 (2.65)	20.27 (3.61)	4.825	0.004**
Awareness towards green attributes	Mean SD	29.50 (4.34)	30.38 (4.13)	29.27 (3.71)	31.27 (3.39)	0.825	0.484
Awareness towards green products	Mean SD	30.25 (5.80)	33.29 (4.19)	33.80 (4.13)	38.93 (6.18)	8.258	0.001**

With respect to awareness towards green terms, P value is less than 0.01. Therefore null hypothesis is rejected at 1% level of significance which shows there is high significant difference among the educational qualification of the respondents on their awareness towards green terms.

With respect to awareness towards green attributes, P value is more than 0.05. Therefore null hypothesis is accepted at 5% level of significance which shows there is no significant difference among the educational qualification of the respondents on their awareness towards green attributes.

With respect to awareness towards green products, P value is less than 0.01. Therefore null hypothesis is rejected at 1% level of significance which shows there is high significant difference among the educational qualification of the respondents on their awareness towards green products.

From the mean scores we could identify that awareness of consumers who have pursued professional degree is higher than the other group of respondents with respect to green terms, green attributes and green products.

Table 6 ANOVA for significant difference among occupation of consumers towards awareness on green purchasing

Awareness towards green purchasing	Mean/SD	Occupation					F value	P value
		Student	Employed	Business	Professional	Others		
Awareness towards green terms	Mean SD	17.30 (3.10)	16.85 (2.51)	19.00 (3.75)	19.69 (3.11)	14.29 (3.55)	4.526	0.002**
Awareness towards green attributes	Mean SD	29.78 (4.16)	30.54 (3.71)	30.33 (3.98)	31.63 (3.61)	26.86 (3.24)	1.949	0.111
Awareness towards green products	Mean SD	32.57 (4.09)	31.31 (3.79)	37.00 (6.17)	36.81 (3.41)	26.43 (4.65)	9.994	0.001**

With respect to awareness towards green terms, P value is less than 0.01. Therefore null hypothesis is rejected at 1% level of significance which shows there is high significant difference among the occupation of the respondents on their awareness towards green terms.

With respect to awareness towards green attributes, P value is more than 0.05. Therefore null hypothesis is accepted at 5% level of significance which shows there is no significant difference among the occupation of the respondents on their awareness towards green attributes.

With respect to awareness towards green products, P value is less than 0.01. Therefore null hypothesis is rejected at 1% level of significance which shows there is high significant difference among the occupation of the respondents on their awareness towards green

products.

From the mean scores we could identify that awareness of consumers who are in to profession is higher than the other group of respondents with respect to green terms and green attributes. With respect to green products, consumers who are doing business are more aware than the other consumers.

Table 7 ANOVA for significant difference among family monthly income of consumers towards awareness on green purchasing

Awareness towards green purchasing	Mean/SD	Family monthly income				F value	P value
		Below 10000	10000-20000	20000-30000	Above 30000		
Awareness towards green terms	Mean SD	15.26 (2.86)	18.24 (2.51)	17.83 (3.70)	19.86 (3.48)	7.308	0.001**
Awareness towards green attributes	Mean SD	28.53 (4.81)	29.19 (2.89)	31.39 (4.22)	31.50 (3.19)	3.159	0.029*
Awareness towards green products	Mean SD	28.53 (3.85)	32.95 (3.98)	34.11 (3.63)	39.05 (4.90)	22.207	0.001**

With respect to awareness towards green terms, P value is less than 0.01. Therefore null hypothesis is rejected at 1% level of significance which shows there is high significant difference among the family monthly income of the respondents on their awareness towards green terms.

With respect to awareness towards green attributes, P value is less than 0.05. Therefore null hypothesis is rejected at 5% level of significance which shows there is significant difference among the family monthly income of the respondents on their awareness towards green attributes.

With respect to awareness towards green products, P value is less than 0.01. Therefore null hypothesis is rejected at 1% level of significance which shows there is high significant difference among the family monthly income of the respondents on their awareness towards green products.

From the mean scores we could identify that awareness of consumers whose family monthly income is more than Rs. 30,000 is higher than the other group of respondents with respect to green terms, green attributes and green products.

Conclusion:

Thus we could conclude that the demographic variables namely, gender, marital status, age group, educational qualification, occupation and family monthly income have significant impact on consumers' green purchase awareness and this would help the marketers to select their target group of consumers.

References:

[1] Golnaz Rezai, Phuah Kit Teng, Zainalabidin Mohamed and Mad Nasir Shamsudin , "Consumers' awareness and consumption intention towards green foods", African Journal of Business Management Vol. 6(12), pp. 4496- 4503,28March,2012. ISSN 1993 - 8233

[2] Caroline Fisher, Shristy Bashyal and Bonnie Bachman , on "Demographic impacts on environmentally friendly purchase behaviors" Journal of Targeting, Measurement and Analysis for Marketing, September 2012, Volume 20, Issue 3–4, pp 172–184, ISSN: 1479-1862 (Online)

[3] Dr. T. Vasanthi and N.Kavitha , "Consumer awareness and purchasing behaviour of green products- An analytical study"Intercontinental Journal Of Marketing Research Review, ISSN:2321-0346 - ONLINE ISSN:2347-1670 - PRINT -IMPACT FACTOR :1.590 VOLUME 4, ISSUE 2, FEBRUARY 2016

[4] Preeti Pillai and Dr. S. O. Junare, A Study on Consumers' Perception towards eco-friendly products in Ahmedabad, International Journal of Research in IT and Management (IJRIM), Vol. 6 Issue 7, July 2016, pp. 14~28, ISSN(o): 2231-4334, Impact Factor: 5.96

[5] Roslin Abdul Rahim, Zuraidah Sulaiman, Thoo Ai Chin, Mohd Shoki Mohd Arif and Mohd Hakim Abdul Hamid, E-WOM Review Adoption: Consumers'Demographic Profile Influence on Green Purchase Intention, IOP Conf. Series: Materials Science and Engineering, 215, (2017) 012020 doi:10.1088/1757-899X/215/1/012020