

Measuring the Collective Impact of Gender and Age and Factors of Planned Behaviour on Purchase Intention of Green Products

Abhilasha Saxena¹ and Dr. Vandana Jain²

Research Scholar, Devi Ahilya Vishwavidyalaya, Indore, MP, India¹

Professor (Commerce), Devi Ahilya Vishwavidyalaya, Indore, MP, India²

Abstract: *Green purchase can exert an impression on organization end line. It also supports to shape an affirmative public image, brand, and goodwill in the marketplace. The purchase intention for the green products differs across culture, gender and individual behaviour. India is a heterogeneous country and consists of different subcultures that have their own values, beliefs and norms. Therefore, conducting a national-level study of cultural orientations, as is done in most developed countries may be of limited value. Knowing individual trends can give marketers a better picture of consumers' green purchasing intent. Therefore, this study examines individual behaviour in contrast to previous studies, which have mainly focused on examining national behaviour. Demographic factors such as gender and age group are having significant impact on purchase intention. The result revealed that Gender have different attitude while buying environmentally friendly green products. But they exhibited similar behaviour in terms of subjective norms/ beliefs, their perceived behavioural control, purchase intention, self-expressive benefits and their collective responses while purchasing environmentally friendly green products. But various age groups of respondents exhibit difference in their attitude, subjective norms/ beliefs, perceived behavioural control, purchase intention towards buying environmentally friendly green products, self-expressive benefits and collective response towards buying environmentally friendly green products. Hence this study is useful for policymakers, entrepreneurs, marketers, and academicians and gives insight into how to increase purchase intention and purchase for different kinds of green products*

Keywords: Green Marketing, Planned Behaviour Theory, perceived behavioural control, self-expressive benefits, subjective norms/ beliefs

I. INTRODUCTION

1.1 Green Marketing

Consumers are becoming more knowledgeable and conscious of the environmental effect of green products in the new century, and corporations may demand changes in their environmental performance (Mohammed Rafi Jacob, 2011). With the most alternatives accessible today, customer decision-making has become difficult. Consumer choices in a growing market may be influenced by environmental issues, with enterprises concentrating on manufacturing and marketing green products (Bui Chen Tan and Tek Chai Lan, 2011). Green product performance is linked to its influence on society and the physical environment before, during, and after consumption.

Marketers must understand customer purchasing decisions to design a successful marketing plan because consumers and businesses alike are becoming more conscious of the need to switch to environmentally friendly goods and services. Because of the development of green marketing, businesses now have more opportunities to brand the items they sell. The term "green marketing" was coined by the American Marketing Association and refers to "the marketing of products that are presumed to be environmentally safe. Green product farming has spread widely in recent decades in response to rising concerns about the negative externalities associated with intensive agribusiness systems' impact on the environment and humanity (Janssen and Hamm, 2014). In addition, sustainability has been established to improve the quality of human life and the environment (Smith and Floro, 2020).

In the Indian context, creating and implementing green product standards would alter the market availability of green products and encourage sustainable consumption and production. One of the biggest issues in India is the effective communication of green products to customers, who have little awareness of green products and get less information about them. Consumers' eco-friendly views and behaviour in emerging nations such as India: causes and implications (Shilcha Gupta, 2013).

1.2 Theory of Planned Behaviour

Theory of Planned Behaviour (TPB) examines the connection between an individual's thoughts and actions. According to this theory, a person's behavioural objectives may be broken down into three fundamental components: attitude, subjective norms, and perceived behavioural control. Isak Aizen developed a theory of reasoning based on this premise, and he attempted to improve the predictive ability of the theory (TRA). Aizen proposed putting perceived behavioural control into the environment as an alternative to TPB. According to Aizen, behavioural control is the outcome of persistent goals and perceptions of behavioural control throughout a period. According to the idea of behavioural control, the intention should have as little of an effect as possible on behaviour. The theory of planned behaviour differs from other models in that it considers how one's actions will affect others in terms of social standards and normative beliefs rather than just how one's thoughts and feelings will influence them. The recognition that social networks and institutions (such as peer groups, families, schools, and workplaces) can readily observe and consider an individual's behaviour has been a welcome addition to the field of social impact theory.

II. REVIEW OF LITERATURE

Earlier research studies into purchase intention towards green marketing has explored diverse results overtime. According to Ajzen and Fishbein's (1980) Theory of Planned Activity (TPB), a person's behavioural intention is their desire to do a certain activity. The authors think that behavioural intention is the best prediction of real behaviour. A person's plans for how they will act are affected by their attitude, subjective norm, and how much control they feel over their behaviour.

Mehrens, Cragg, and Mills (2001) found that perceived benefit and perceived risk affect attitude, that normative belief and moral duty affect the subjective norm, and that control strength and control belief have an effect on PBC. (Ajzen, 2002). All of these factors come together to determine both the purpose behind the action and the real behaviour.

Awang et al. (2016) used the theory of planned behaviour to look into how likely customers were to buy green goods. In addition, they found those customers' psychological norms, views, and perceived levels of behavioural control had a big effect on their plans to buy green goods. In addition, to add value to the earlier study that has been done in the area of organic usage, they add one more important factor, which is price awareness. The study results, which were found using structural equation modelling, show that the subjective standard, observed behavioural control, mood, and price knowledge are all important

Prakash et al. (2018) sought to understand consumers' decision-making styles regarding green goods. According to the findings of this research, perfectionism, a focus on high quality, a focus on novelty, a focus on pricing, and brand loyalty were significant predictors of the desire to buy Green Product. It was shown that perfectionism is the most important predictor of a person's desire to purchase.

Konuk (2018) established a conceptual framework to understand better the aspects that influence the desire to buy a green product. In this respect, they have discovered many causes for the desire to buy green products. These causes include the private organic label, the image of the business, perceived quality, faith in the green product label, and perceived value.

Anisimova et al. (2019) found that the Green Product market is still in a niche level because customers were not purchasing the products very often. In addition, they discovered in the research that they had done that regulated and uncontrolled communications were a component in the development of organic consumerism. According to their reasoning, the key elements that influence organic consumerism are hypothesized to be both uncontrolled and regulated communications.

Tariq et al. (2019) looked into how customers' intentions to buy green products were affected by social commerce, which is another name for online and web-based green product sales. As a result, the author of this research proposes

that online businesses selling green products should place a greater emphasis on these three moderators and give the information on green products a higher priority.

Lim and Goh (2019) discovered that awareness towards Green Product, Green Product brand, and Green Product trust in conjunction with the constructs of the theory of planned behavior (subjective norm, attitude, and perceived behavioural control) were the significant causing factors for Green Product purchase intention in Malaysia.

Prentice et al. (2019) used the theory of planned behaviour (TPB), and they thought that the theory's parts greatly affected people's plans to buy green goods. The participants in this research were divided into two groups: those who were willing to purchase green products and those who were not willing to buy green products. Customer responses were gathered through both online and in-person interactions and face-face interviews. The findings of the structural equation modelling indicate a substantial influence of moderating factors on the anticipated linkages between both groups.

Molinillo et al. (2020) carried out research in Brazil and Spain to determine the elements that influence a consumer's willingness to pay a higher price for a green product and the frequency with which they make purchases. For this reason, they identified a few crucial causative elements from the literature. These factors are as follows: the safety of green products, natural content, environmental concern, and sensory appeal as independent factors, and health awareness and social consciousness as the mediating variables. The result supports the previous outcomes.

Alam et al. (2020) used TPB to study people's plans to buy sustainable food. They found that subjective standards, perceived behavioural control (value and effectiveness), and attitude greatly affected buying intention.

In their study, Kaushal, S. and others (2021) investigated the variables influencing customers' green purchasing behavior in Uttar Pradesh, India. This study aimed to find out what makes people want to buy things that are good for the earth and what they do to make that happen. According to the research findings, a person's mind-set has a strong and positive association with their desire to buy environmentally friendly items. The subjective norms–purchase intention significant association had excellent strength, indicating a significant link. There was a substantial connection between the feeling of control over one's behaviour and the desire to purchase.

Sharma et al. (2022) examined the relationship between environmentally responsible consumer behaviour and eco-innovation, considering the influences of emotional generation and brand loyalty.

III. RESEARCH METHODOLOGY

3.1 Objectives of the Study

- The study is conducted with a view for achieving the following specific objective:
- To study the collective impact of gender and factors of planned behaviour on purchase intention with of green products.
- To study the collective impact of age and factors of planned behaviour on purchase intention with of green products.

3.2 Hypotheses of the Study

The study has proven the hypotheses based on the above objectives that have been signified at a 0.05 level.

- H_{01} : There is no significant difference between the attitude of males and females towards buying environmentally friendly green products.
- H_{02} : There is no significant difference between subjective norms/ beliefs of males and females towards buying environmentally friendly green products.
- H_{03} : There is no significant difference between perceived behavioural control of males and females towards buying environmentally friendly green products.
- H_{04} : There is no significant difference between purchase intention of males and females while buying environmentally friendly green products.
- H_{05} : There is no significant difference between self-expressive benefits of males and females towards buying environmentally friendly green products.

- H₀₆: There is no significant difference between collective responses of males and females towards buying environmentally friendly green products.
- H₀₇: There is no significant difference between the ages of consumers with respect to the attitude of buying environmentally friendly green products
- H₀₈: There is no significant difference between age of consumers with respect to subjective norms/ beliefs of buying environmentally friendly green products
- H₀₉: There is no significant difference between ages of consumers with respect to perceived behavioural control while buying environmentally friendly green products
- H₁₀: There is no significant difference between ages of consumers with respect to purchase intention of buying environmentally friendly green products
- H₁₁: There is no significant difference between ages of consumers with respect to self-expressive benefits while buying environmentally friendly green products
- H₁₂: There is no significant difference between ages of consumers with respect to collective responses while buying environmentally friendly green products

3.3 Sampling Plan and Data Collection

A convenient sampling method was adopted. In all, 250 individuals conveniently selected in MP. Out of them 55 were between the age of 18 to 25 years, 100 from 26-30 years, 45 from 31-40 years, 25 respondents from 41-50 years and above the age of above 50 years. Males and females included in the study were 120 and 130 respectively. Primary data was collected through survey using structured questionnaire and secondary data through various websites and articles. ANOVA and Independent sample t test were used to measure the hypotheses.

IV. DATA ANALYSIS

TABLE 1: Group Statistics (GENDER)

Variables	Gender	N	Mean	Std. Deviation	Std. Error Mean
Attitude	Female	130	33.0967	6.22929	.37981
	Male	120	31.2215	7.70259	.43961
Subjective Norms/ Beliefs	Female	130	55.3717	10.94948	.66760
	Male	120	53.9316	11.23451	.64119
Perceived Behavioural Control	Female	130	32.5985	7.70797	.46996
	Male	120	32.8371	6.97986	.39836
Purchase Intention	Female	130	19.7398	4.44359	.27093
	Male	120	19.5081	4.31168	.24608
Self-Expressive Benefits	Female	130	19.7807	4.20024	.25609
	Male	120	20.1759	4.10026	.23401
Collective Responses	Female	130	10.4944	2.75169	.16777
	Male	120	10.6873	2.55654	.14591

Independent sample t-test includes two parts i.e. Group statistics and Independent sample test. Table 1 showed the basic information about comparison between genders, including sample size, mean, standard deviation and standard error. In above table, there are 130 females and 120 males. The mean value of attitude and subjective norms and belief shows that female is more favourable than males towards purchasing green products. The mean value of perceived behavioural control, purchase intention, self-expressive benefits and collective responses exhibits that females and males are having similar inclination towards green products.

TABLE 2: Independent Samples Test

Variables		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	Df	Sig. (2-tailed)
Attitude	Female	4.838	.028	3.183	574	.002
	Male			3.228	570.425	.001
Subjective Norms/ Beliefs	Female	3.098	.079	1.553	574	.121
	Male			1.556	567.529	.120
Perceived Behavioural Control	Female	4.059	.044	-.390	574	.697
	Male			-.387	545.039	.699
Purchase Intention	Female	4.478	.035	.634	574	.526
	Male			.633	559.239	.527
Self-Expressive Benefits	Female	.432	.511	-1.141	574	.254
	Male			-1.139	560.284	.255
Collective Response	Female	1.942	.164	-.872	574	.384
	Male			-.867	550.768	.386

Interpretation:

- H₀₁- From Table 2, The p value for females is less than .05(.002 < .05). Similarly the p value for male is less than .05(.001 < .05). So we reject the hypothesis H₀₁ which means male and females are having different attitude towards buying environmentally friendly green products
- H₀₂- From Table 2, it can be interpreted that the p-value is greater than 0.05(.121 > .05) for female and for male, the p value is .120 which greater than .05(.120 > .05). So the accepted hypothesis which implies that respondents of different genders are not significantly different in their subjective norms/ beliefs towards buying environmentally friendly green products.
- H₀₃- From Table 2, it can be interpreted that the p-values for female and male are greater than 0.05(.697 and .699 respectively) and so we accepted the hypothesis. It indicates that different genders are not significantly different in their perceived behavioural control towards buying environmentally friendly green products.
- H₀₄- From Table 2, it can be interpreted that the p-values for female and male are greater than 0.05(.526 > .05 and .527 > .05) and so we can state that hypothesis got accepted. It implies that respondents of different genders are not significantly different in their purchase intention towards buying environmentally friendly green products.
- H₀₅- From Table 2, it can be interpreted that the p-values for female and male are greater than 0.05(.254 > .05 and .384 > .05) and so it can be stated hypothesis got accepted. It implies that respondents of different genders are not significantly different in their self-expressive benefits towards buying environmentally friendly green products.
- H₀₆- From Table 2, it can be interpreted that the p-values for female and male are greater than 0.05(.384 > .05 and .386 > .05) and so we can state that hypothesis is accepted. It implies that respondents of different genders are not significantly different in their collective responses towards buying environmentally friendly green products.

TABLE 3: DESCRIPTIVES (AGE)

Variables	Age Group	N	Mean	Std. Deviation	Std. Error Mean
Attitude	18- 25 years	55	28.8471	9.95168	1.07941
	26 - 30 years	100	31.9714	7.06999	.59752
	31-40 years	45	32.1303	6.23349	.40406
	41-50 years	25	33.1034	5.46982	.71822

	>50	25	36.2364	4.25120	.57323
	Total	250	32.0972	7.10891	.29620
Subjective Norms/ Beliefs	18- 25 years	55	49.4824	15.91616	1.72635
	26 - 30 years	100	53.2143	9.72262	.82171
	31-40 years	45	55.5966	9.73386	.63095
	41-50 years	25	56.6552	8.31940	1.09239
	>50	25	59.6000	10.43427	1.40696
	Total	250	54.6042	11.11597	.46317
Perceived Behavioural Control	18- 25 years	55	29.8471	8.43251	.91463
	26 - 30 years	100	32.7786	7.17516	.60641
	31-40 years	45	32.5420	7.47741	.48469
	41-50 years	25	32.9828	5.27653	.69284
	>50	25	37.5636	4.00816	.54046
	Total	250	32.7257	7.32342	.30514
Purchase Intention	18- 25 years	55	18.7882	5.37431	.58293
	26 - 30 years	100	19.2000	4.57739	.38686
	31-40 years	45	19.5882	4.12651	.26748
	41-50 years	25	19.6207	3.46829	.45541
	>50	25	22.0727	3.08434	.41589
	Total	250	19.6163	4.37149	.18215
Self-Expressive Benefits	18- 25 years	55	18.9647	6.07580	.65901
	26 - 30 years	100	19.8929	4.75545	.40191
	31-40 years	45	20.3866	2.87902	.18662
	41-50 years	25	18.9138	3.96159	.52018
	>50	25	21.2545	3.06847	.41375
	Total	250	19.9913	4.14833	.17285
Collective Responses	18- 25 years	55	9.4000	3.26672	.35433
	26 - 30 years	100	10.4000	2.59994	.21974
	31-40 years	45	10.7227	2.48684	.16120
	41-50 years	25	11.5345	1.92140	.25229
	>50	25	11.4182	2.37027	.31961
	Total	250	10.5972	2.64889	.11037

Table 3 showed the descriptive of different age groups. Out of them 55 were between the age of 18 to 25 years, 100 from 26-30 years, 45 from 31-40 years, and 25 respondents from 41-50 years and above the age of above 50 years.

TABLE 4: ANNOVA

Variables		Sum of Squares	Df	Mean Square	F	Sig.
Attitude	Between Groups	1901.389	4	475.347	9.995	.000
	Within Groups	27157.166	246	47.561		
	Total	29058.556	250			
Subjective Norms/ Beliefs	Between Groups	4351.374	4	1087.844	9.313	.000
	Within Groups	66698.376	246	116.810		
	Total	71049.750	250			
Perceived Behavioural Control	Between Groups	2003.922	4	500.981	9.921	.000
	Within Groups	28834.737	246	50.499		
	Total	30838.660	250			
Purchase Intention	Between Groups	414.607	4	103.652	5.597	.000
	Within Groups	10573.600	246	18.518		

	Total	10988.207	250			
Self-Expressive Benefits	Between Groups	283.227	4	70.807	4.206	.002
	Within Groups	9611.729	246	16.833		
	Total	9894.957	250			
Collective Responses	Between Groups	219.045	4	54.761	8.195	.000
	Within Groups	3815.510	246	6.682		
	Total	4034.556	250			

Interpretation

- H₀₇- From Table 4, it can be interpreted that the p value is less than 0.05.Hence hypothesis got rejected. It implies that respondents of various age groups exhibit different attitude towards buying environmentally friendly green products.
- H₀₈- From Table 4, it can be interpreted that the p-value is less than 0.05 and so hypothesis got rejected. It implies that respondents of various age groups are having significantly different subjective norms/ beliefs towards buying environmentally friendly green products.
- H₀₉- From Table 4, it can be interpreted that the p-value is less than 0.05 and so hypothesis got rejected. It implies that respondents of various age groups are significantly different in their perceived behavioural control towards buying environmentally friendly green products.
- H₁₀- From Table 4, it can be interpreted that the p-value is less than 0.05 and so the hypothesis got rejected. It implies that respondents of various age groups are significantly different in their purchase intention towards buying environmentally friendly green products.
- H₁₁- From Table 4, it can be interpreted that the p-value is less than 0.05 and so the hypothesis got rejected. It implies that respondents of various age groups are significantly different in their self-expressive benefits towards buying environmentally friendly green products.
- H₁₂- From Table 4, it can be interpreted that the p-value is less than 0.05 and so hypothesis got rejected. It implies that respondents of various age groups are significantly different in their collective responses towards buying environmentally friendly green products.

V. DISCUSSION

Gender distribution of respondents which reveals that out of 576 respondents, there were majority of male. The finding revealed that male and females showed different attitude while buying environmentally friendly green products. But they exhibited similar behaviour in terms of subjective norms/ beliefs, their perceived behavioural control, purchase intention, self-expressive benefits and their collective responses while purchasing environmentally friendly green products.

Oscar Otero Polo (June, 2015, Module University, Austria) stated in his study that Female are more aware about green products and buying green products more frequently than male. But Sudhir Sachdev (2013) found no impact of gender on purchasing of eco-friendly products. So the results of this study are supported by previous studies.

Various age groups of respondents exhibit difference in their attitude, subjective norms/ beliefs ,perceived behavioural control, purchase intention towards buying environmentally friendly green products, self-expressive benefits and collective response towards buying environmentally friendly green products. Sudhir Sachdev (2013), Do Paco et al. (2009); Straughan & Robert (1999) and Roberts (1996) stated that age has positive impact on purchase of green product. They also found that older generation is more environmentally sentient toward green products than young generation due to their the maturity and compared to Furlow and Knott (2009) and Laroche et al. (2001) did not notice any difference in impact. So results of previous studies provided backing to this study.

5.1 Limitations

- The research findings may not be generalized to the entire population.

- The geographical, social and economic barriers faced this study could be overcome in further research between different groups or outside the MP
- Time is also a limitation of this study because in this dynamic marketing environment people's choices and preferences are changing very rapidly

VI. CONCLUSION

Green marketing is a tool to protect the environment for future generations. It won't be an easy concept. The company needs to plan and then research to find out how feasible it will be. Green marketing needs to evolve as it is still in its infancy. Implementing green marketing may not be easy in the short term, but it will definitely have a positive impact on the business in the long term. Green marketing is still in its infancy in Indian companies. Many options are available. Now is the right time to make green marketing decisions worldwide. There will be drastic changes in the business world when all nations make strict rules because green marketing is essential to save the world from pollution. The recycling of paper, metals, plastics, etc. in a safe and environmentally responsible way should become much more systematized and universal. It must become the norm to use energy efficient lamps and other electronic devices. Customers in the Indian market are also willing to pay a higher price for environmentally friendly products. One thing that is repeated is that current consumption levels are too high and unsustainable. Therefore, there is a need for green marketing and a change in consumer behaviour and attitude towards greener lifestyles. Ultimately, green marketing requires that consumers want a cleaner environment and are willing to pay for it, perhaps through more expensive goods, changes in individual lifestyles, or even government intervention.