Role of Demographics in Influencing Consumers' Environmental Concern towards the benefits of Green Packaging

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ABSTRACT

Packaging in the form of single use plastics have degraded our planets' health which have created world-wide attention. Through awareness, now consumers are highly concerned for the environment and are demanding sustainable packaging options such as green packaging. The major goal of current study is to determine how demographic variables have an effect on consumers' environmental concern leading towards green packaging. A sample of 341 respondents were chosen from Delhi NCR and Haryana state. For data analysis, T test and ANOVA test are applied. Key findings suggest favourable differences between consumers' environmental concern and their demographics.

Keywords: Environmental concern, Green Packaging, Sustainability, Green Consumers

1. Introduction

Environment and health is deteriorating due to man made choices. One of the major cause is use and throw of plastic which is mostly widely used in packaging industry. Packaging industry is a fastest growing sector in India and is almost part of every industry forcing players of market to adopt more sustainable ways for packaging such as green packaging. As such, in todays' scenario consumers are more aware about their purchases and are now willing to shift their choices from conventional packaging to green packaging.

More awareness among consumers leads to strong environmental concern. Environmental concern act as a motivational factor to consumers in becoming more responsible in terms of their life style, consumption habits

and purchase behaviour. Not only this but with the strong environmental concern, consumers are now willing to switch to the green brands and are also willing to pay more for green packaging (Ottman, 1998). However demographics such as gender, age, income and education significantly controls the consumers' motivational aspects. For example, consumers' income decides how much they are willing to pay extra for green packaging. Given the above mentioned inconsistencies, it becomes imperative to develop a better understanding on how demographics can play a role in consumers' decisions. This way, marketers will have a practical insights on their target market for promoting green products.

2. Literature Review

To protect environment, innovative ways of sustainability is promoted. One of the innovations is 'Green Packaging.' Green packaging is also called as sustainable packaging and eco-friendly packaging. As per Magnier and Crie (2015), green packaging claims to use technology which is environmental friendly, biodegradable and resource saving.

Bamberg 2003, defines environmental concern as a strong attitude for safeguarding the environment. Infact, environmental concern is one of the most important predictor and motivational factor in consumers behavioural decisions. Statements related to environmental concern in relation with green packaging have been used in the questionnaire for the study.

Previous literature elucidates role environmental concern in various fields such as automobiles, food & beverages etc. Currently there is a hike in consumers' concern for environmental pollution and health issues which positively influences on their attitude for green products leading to positive purchase decisions (Cheah and Phau, 2011). However, the influence is not always consistent as it is also controlled by various variables such as demographics. For example in the field of fast fashion, female customers were more environmentally conscious and preferred eco friendly packaging (Kim and Seock, 2009). In addition, income also plays a major role in influencing consumers' environmental concern. Paul and Rana (2012) findings reveal green products to be more expensive than conventional products. Consumers with higher income or financial stability have higher probability to purchase green products (Gleim et al., 2013). From the above literature, this study focuses on the two major demographic constructs i.e., gender and income and how it influences consumers' environmental concern. Henceforth, it is proposed that gender and income significantly influences environmental concern toward green packaging.

3. Research Methodology

This research studies about consumers' environmental concern towards green packaging and how gender and income characteristics influences it. Under this study, a sample of 341 respondents from Delhi NCR and Haryana were examined. A non-random convenient sampling was undertaken with the help of structured questionnaire and analysis was done where Independent T test and ANOVA were calculated. In total 8 statements of environmental concern were taken on 5 point Likert scale from strongly disagree to strongly agree. The two demographics factors were undertaken which are gender and income.

4. Objectives of the Study

The main objective of our study is to ascertain how demographics have an influence on consumers' environmental concern towards green packaging in Delhi NCR and Haryana. Two demographics i.e., Gender and Income and one motivational factor i.e., Environmental Concern were undertaken. Based on this, first objective is defined as "to study consumers' environmental concern towards green packaging on the basis of demographics. "

For attaining the objective following hypotheses have been developed.

$H_{1.:}$ *There is a significant difference between consumers' environmental concern and demographic profile of respondents*

Sub Hypotheses of the study are as below:

$H_{1.1:}$ *There is a significant difference in consumers 'environmental concern on the basis of gender*

$H_{1.2:}$ *There is a significant difference in consumers 'environmental concern on the basis of income*

5. Data Analysis

For attaining the sub hypotheses ($H_{1.1}$), Independent Sample T-Test has been pertained. In this study, Independent Sample T-Test is calculating among variables Consumers' environmental concern and gender (Male (group1 =173) and Female (group2=168)). After running the SPSS 20.0, study gets the following Table 1.1.

Table:1.1 Independent Sample T-test on Gender

Factor	Mean		Std Deviation		df	T-value	P-value	Mean Difference	Hypothesis
	Male	Female	Male	Female					
Consumer Awareness	3.72	3.34	0.926	0.982	39	2.721	0.02	0.198	Accepted

Source: Primary data

Table 1.1. shows the results of t-test on the basis of Gender. The independent samples t-test has been used to find out the difference in the Consumers' environmental concern towards green Packaging on the basis of Gender. The t-value and significance value are calculated to examine the difference between Male and Females. Output of the Table 1.1 is presented in following manners:

The mean values of the Male and Female respondents are 3.72 and 3.34 with standard deviation of 0.926 and 0.982 respectively for Environmental Concern. The mean difference for Consumers' Environmental Concern is 0.198. Also, the t-value is 2.721 which is found statistically significant (p=0.02) at 5% of significance level. This indicates that there is a significant difference in the Consumers' Environmental Concern towards green packaging between Male and Female. On the basis of mean value, it is concluded that Male respondents are having high Consumers' Environmental Concern than the female respondents. Thus, the sub hypothesis, ($H_{1.1.}$), there is a significant difference in Consumers' Environmental Concern on the basis of Gender is accepted and concluded that:

$H_{1.1=}$ *There is a significant difference in consumers 'environmental concern on the basis of gender*

For attaining second hypothesis which is based on income, one way ANOVA has been applied as displayed in Table 1.2 and Table 1.3.

Table 1.2 Descriptives

Income groups	Frequency	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Rs 50,000-75000	61	3.69	1.955	.750	3.1985	3.198
Rs 75000-100000	68	3.54	2.265	.754	3.0312	3.433
Rs100000-125000	52	3.21	2.784	.906	3.3975	4.153
Above Rs 125000	160	3.05	1.777	.547	3.4021	3.912
Total	341	3.09	2.512	.352	3.4001	4.327

Source: Primary data

Table 1.3 ANOVA on Income

	Sum of Squares	df	Mean Square	F Value	P Value Sig.
Between Groups	45.558	3	15.186	4.341	.002
Within Groups	1437.440	337	2.657		
Total	1442.997	340			

Source: Primary data

*(*Significant when p value <0.05)*

The mean values of the respondents for income group Rs 50,000-Rs 75000, Rs 75000-100000, Rs 100000-125000 and Above Rs 125000 are 3.69, 3.54, 3.21 and 3.05 with standard deviation are 1.955, 2.265, 2.784 and 1.777 respectively. The f value is 4.341 and found statistically significant (p=0.002) at 5% of significance level which indicates that there is a significant difference in the consumers' environmental concern among four income groups. On the basis of ANOVA table, it is concluded that all income groups consumers respond differently on their environmental concern. So, study accepted the second hypothesis:

$H_{1.2}$ = *There is a significant difference between Consumers' environmental concern across Income groups*

6. Conclusion

Environmental concern motivates consumers' purchase behaviour as supported by various studies. Henceforth, environmental concern is an important construct in green marketing field. Based on the findings, it is determined that all consumers are different as their demographics have an effect on their personality. Consequently, how much consumers are concerned for the environment totally depends on their association with their gender and income. The sample showed a rather strong association between their demographics and environmental concern towards green packaging. From this study, it is concluded that male were strongly concerned for the environment as compare to females. From income point of view, the type of income group respondent belong to does influence their level of environmental concern. Henceforth, this gives useful insights to all players such as academicians, researchers and green marketers. Marketers gets huge opportunity to understand better on their target market.

7. References

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