

Impact of Green Marketing on Consumer Purchase Intention

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Abstract

The objectives of the research are to study the factors that determine consumer intentions towards buying green products. The inclusion criterion for the respondent was at least 14 years of education and the minimum age of 19. Findings of the study show that age and education have a positive relation with Eco-literacy. Socio-demographic variables are not significantly related with green purchase intention. Besides this, Environmental advertisements, Price and Ecological packaging were found to be positively related with the Green purchase intention. Recommendations are presented for the existing and new companies to exploit the opportunities by investing in corporate social responsibility and advertisement as well as in improving and greening the marketing program. Further studies are needed to widen the scope of research in other areas of green marketing program and strategy.

Keywords: Green Marketing, Green Purchase Behavior (GPB), Green Purchase Intentions (GPI)

1. Introduction and Background of the Study

Environmental concern has become an important area of interest for multi-national corporations, government, academics and other stakeholders over the past decades. The concept of green marketing emerged in the 1970s and green products became popular during the 1990s. Consumers are becoming increasingly environmentally conscious (Laroche et al., 2001). Companies and consumers are more thoughtful of green marketing now (Paettie & Crane, 2005). Today's market place is different from the yesteryears in a sense that it is more environment-friendly. Consumers nowadays are more concerned about their shopping attitude and purchases. They are concerned about the planet earth they are living and want to contribute towards its longevity and well-being. This positive attitude towards environment is evidenced by their shopping habits; such as their concern regarding CFC and product-recycling. Another convincing evidence is an upward trend in paying more for the environment-friendly products by the consumers (Laroche et al., 2001). As a result of this, manufacturing firms should be cautious about their products and consumer needs. If they fail to comply they may face regulations and hardening customer demands (Grant, 2008).

This trend towards environment-friendly attitude has developed the concept of green marketing. It is a relatively new concept with its origins in the latter half of the 20th century (Paettie & Crane, 2005). Green marketing activities include, manufacturing, differentiating, pricing and promoting products and services which can satisfy consumer environmental needs (Paettie, 1992) as cited by Chen & Chang (2012). According to Chen & Chang (2012) these green marketing efforts enhance consumer purchase intentions. Companies need to focus on reducing the green perceived risk by giving trustworthy information so that it helps build the trust with the customers, improve the green perceived value and enhance the purchase intentions about buying a green product.

Besides this, consumers propose that environmental advertisements are more effective in enhancing their knowledge about green products and help make informed decisions (Akehurst et al., 2012). Therefore, environmental advertisement can help enhance motivation towards buying green products. Moreover, according to Hartmann and Ibanez (2006) consumers will more likely buy a green product having ecological packaging provided they meet cost-benefit analysis. Sustainability is also demanded from industrial suppliers, and exporters are under pressure for supplying eco-packed products (Saxena & Khandelwal, 2012). Ecologically conscious consumers are willing to pay high prices for such products (Laroche et al., 2001).

The aim of the present study is to identify the elements of green marketing that influence consumer purchase of a green product.

2. Research Problem

The concept of green marketing emerged in 1970s and green products became popular during 90's. Consumers are becoming increasingly environmentally conscious. (Laroche *et al*, 2001). Companies and consumers are more thoughtful of green marketing now. (Paettie & Crane, 2005). Developed economies markets are increasingly purchasing green product and a greater market lies there, so is the case with marketing researches on such topics. Asian studies on green marketing are far less than western countries (Lee, 2009). This makes it important to conduct this study and identify the factors responsible for consumer purchase intention towards green products (electronic goods).

3. Research Questions

The research questions for this study are given below:

1. What socio-demographic variables are relevant to the green consumers?
2. Does high price of green product deter consumers from purchasing the green product?
3. Does green advertising contribute positively towards consumer green purchase intention?
4. Does ecological packaging of the products contribute positively towards green purchase intention?

4. Research Objectives

The objective of the study is to identify the factors that contribute towards influencing the consumer green purchase intention towards electronic goods.

5. Scope of the Study

The purpose of this research undertaken is to study the factors that impact green purchase intention. The factors under consideration are socio demographic variables, environmental advertisements, pricing and ecological packaging. The population under study is the residents of Karachi, Pakistan and at least 14 years of formal education was required to participate in the study.

6. Research Methodology

The researcher takes an interpretivist approach. The approach suggests that reality is subjective. It is appropriate for the current study since intentions are subjective to individual needs and attitude. The research is quantitative and studies the impact of independent variables (Socio-demographic variables, price, environmental advertising and ecological packaging) on dependent variable (Green Purchase Intention).

6.1 Population, Sample Design and Sample Size

For the purpose of this study a sample of 384 individuals was selected. The sample size was calculated using web-based sampling calculator. The sampling criteria were minimum age of 19 years and an education of at least 14. Convenience sampling method was used and the population under study is limited to the metropolis of Karachi.

6.2 Questionnaire Design

The current research studies the factors contributing towards green purchase intention. The questionnaire has been adapted from earlier studies such as Laroche *et al* (2001), Akehurst *et al* (2012), Chen & Chang (2012) and Baker & Ozaki (2008).

Research questionnaire had two parts, whereby, Part A was further divided into two. The first part was about the socio demographic details to test the first hypothesis and the second one measures the eco-literacy of respondents. Part B of the research questionnaire includes items based on 5-point likert scale to test the other hypothesis.

6.3 Pretesting the Questionnaire:

Research questionnaire was pretested and a representative sample of 30 individuals was selected to test the questionnaire. The feedback was incorporated to improve the questionnaire for data collection.

6.4 Data Collection

Data was collected in the natural settings of the respondent through a questionnaire adapted from earlier studies. The sampling criteria were 14 years of education and a minimum age of 19.

6.5 Plan of Analysis

Data was analyzed using SPSS version 20. Inferential and descriptive statistics were used to analyze and explain the findings. Pie charts and frequency distribution were developed for the socio demographic details as well as for the eco-literacy part. Correlation analysis was used to test the association among different constructs.

7. Literature Review

7.1 Concepts & Definitions

According to American Marketing Association online resource library green marketing definitions are:

1. Retailing definition: The marketing of products that are presumed to be environmentally safe.
2. Social Marketing definition: The development and marketing of products designed to minimize negative effects on the physical environment or to improve its quality.
3. Environments definition: The efforts by organizations to produce, promote, package, and reclaim products in a manner that is sensitive or responsive to ecological concerns.

Green Purchase Intention has been defined by Netemeyer *et al*(2005) as cited by Chen & Chang (2012), "the likelihood that a consumer would buy a particular product resulting from his or her environmental needs".

8. Theoretical Reflections

Akehurst *et al* (2012) re-examined the determinants of Ecologically Conscious Consumer Behavior (ECCB) through building consumer profiles (socio-demographic and psychographic components). The study also explored about the determinant of effective green purchase behavior (GPB) through analyzing ECCB and Green Purchase Intention (GPI) from previous studies. For this purpose researchers conducted an online survey and concluded that psychographic variables are more important in characterizing ECCB than demographic ones, and there's a positive relation between ECCB and GPI. Also ECCB has more impact on GPB than GPI.

Chen & Chang (2012) developed a framework to look at the effects of green perceived value and green perceived risk on green purchase intention as well as to find the role of green trust on these aforementioned variables. The study showed a positive influence of green perceived value on green trust and green purchase intention whereas green perceived risk have a negative influence on both of them. Moreover, study showed that green perceived intention and its antecedents green perceived value and green perceived risk are partially influenced by green trust. Which concluded that resources should be invested in increasing the green perceived value and minimizing green perceived risk that will lead to higher trust and green purchase intention.

Rahbar & Wahid (2011) investigated the effects of green marketing tools (eco labels, eco brand, environmental advertisement and trust in eco label and eco brand) on actual consumer purchase behavior. Findings of the study showed that trust in eco label and eco brand are significantly related. Whereas relation between knowledge about eco labels and the effect on consumer purchase behavior was not significant. Moreover, environmental advertisement, another dimension of green marketing was not found to be significant. Akehurst *et al* (2012) studied the impact of socio-demographic and psychographic variables on ecological conscious consumers. The study concluded with psychographic variables as more convincing towards affecting the behaviour.

8.1 Theoretical/Conceptual framework

The current research studied the following variables.

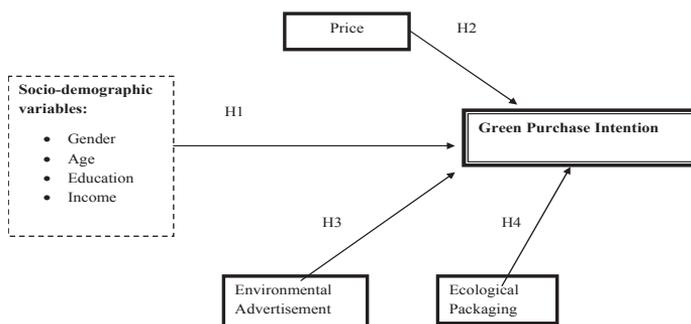
8.2 Independent Variables

- Socio-demographic variables
- Price
- Environmental advertisement and
- Ecological packaging

8.3 Dependent Variable

- Green Purchase Intention (GPI)

Following is the diagram of the theoretical framework employed in this study.



8.4 Hypothesis:

Following hypotheses were developed based on the theoretical framework.

H1: Socio-demographic variables positively affect green purchase intentions.

H2: High prices of ecological products relate negatively to green purchase intention.

H3: Environmental advertisement positively influence green purchase intention.

H4: Ecological packaging has a positive relationship to green purchase intention.

9. Data Analysis and Findings

The data was found to have reasonable internal consistency with a Cronbach's alpha of 0.795 that is higher than the minimum acceptable value of 0.7.

Reliability Statistics

Cronbach's Alpha	N of Items
.795	25

9.1 Descriptive Statistics:

9.1.1 Frequency analysis

Frequency analysis was run for the socio-demographic and eco-literacy factors. Findings are summarized below:

Gender distribution was 35% male and 65% female. Most of the participants (84%) were in the age bracket of 19 – 25. 16% mark below Rs. 20,000 of income, 16% 20,000 to 40,000, 4% 41,000 to 60,000, 4% 61,000 to 80,000, 3% above Rs. 1 Lac and 57% mark N/A. 66 % of the respondents correctly recognized the recycling symbol in the eco-literacy section. In the next question about green and blue box, 40% did not know the meaning of the symbols. 57% respondents think that single most important source of air pollution is heavy industry.

9.1.2 Cross tabulation

The result of the cross tabulation of socio demographic variables with the eco-literacy questions is given below.

Cross tabulation for gender shows that majority of male and female could correctly recognize the recycling symbol. They however, could not correctly identify the usage of green and blue bag (box). It can be generalized since the proportion of males and females were not equal. Respondent in the age bracket of 40 onwards were able to correctly identify these symbols as compared to the younger ones. The cross tabulation also showed that respondent with at least 18 years of education were able to give correct answers.

10. Hypothesis Testing

T-test, ANOVA, and correlation analysis were used to test the hypothesis.

Hypothesis 1: Socio-demographic variables positively affect green purchase intentions.

10.1 Independent sample t-test:

Independent sample t-test was applied on the independent variable gender and dependent variable green purchase intention. The result shows the mean for male segment as 3.2762 and female 3.5052. Levene's test for equality of variance show a level of significance of .764 which means variability in the two conditions is same. At a value of df (degree of freedom) of 97 t score of the row is shown to be -1.699 and two tail significance of .093. As the value of p is greater than .05 there is no statistically significant difference between males and females green purchase intention.

10.2 One-way ANOVA:

One-way ANOVA has been performed for the other demographic variables that are age, education and income. Results for the age variable show mean and standard deviation for different age bracket, though the majority of the respondents are from 19 - 25 age bracket. At df 5 significance level is found to be .719. As this figure is greater than .05 it means there is no statistically significant difference between the mean of different age brackets. Majority of the respondents have at least 16 years of education. At df 3 level of significance of .065 have been shown. This shows that there is no statistically significant difference between different age groups with reference to the construct of green purchase intention. One-way ANOVA was performed between income and green purchase intention. At df 5 significance value of .706 has been shown, which is not significant. That means there is no statistically significant difference between various income brackets.

Result: Hence, it is concluded from the above analysis that socio demographic variables do not contribute towards green purchase intention.

Hypothesis 2. High prices of ecological products relate negatively to green purchase intention.

Price was found to have positive association with Green purchase intention. Pearson correlation of .495 showed a moderate correlation.

Result: We reject the hypothesis and conclude that high prices of ecological products relate positively to green purchase intention.

Hypothesis 3. Environmental advertisement positively influence green purchase intention.

Positive and significant correlation is found between Environmental advertisement and Green purchase intention. Person correlation value of 0.437 shows a moderate correlation.

Result: We fail to reject the hypothesis and conclude that Environmental advertisement positively influence green purchase intention.

Hypothesis 4. Ecological packaging has a positive relationship to green purchase intention.

Ecological packaging is found to be positively related with Green purchase intention though a weak but significant correlation of 0.198 exists between the variables.

Result: We fail to reject the hypothesis and conclude that Environmental advertisement positively influence green purchase intention.

11. Discussion

The present study suggests that socio demographic variables are not found to have significant relationship with green purchase intention. This is in conformance with the previous study of Akehurst et al (2012) which concluded that socio demographic variable were not relevant in explaining ecological conscious consumer behaviour. Environmental advertisements are positively related with the green purchase intention and there is a moderate correlation amongst them. This is in conformance with the previous study of Akehurst et al (2012). A positive relationship exists between the price and green purchase intention that favours the notion that environmentally conscious individual might buy the environment friendly product even at a higher price. This finding is similar to the earlier findings of Coddington, 1990., Suchard & Polonsky, 1991., and Myburgh-Louw & O'Shaughnessy, 1994. Ecological packaging is also found to be positively associated with the green purchase intention with a weak correlation. This is similar to the previous finding by Hartmann & Ibanez (2006), which concluded that consumers would likely buy a green product in ecological packaging provided it meets cost benefit analysis.

12. Conclusion

The study concludes that age and education are associated with environmental literacy. Socio demographic variables are not found to be significantly associated with green purchase intentions. Environmental advertisement, price and Ecological packaging also have a positive relationship with the green purchase intention.

13. Recommendations

The researcher proposes the following recommendations.

1. Consumers are learning about climatic change and environmental issues through the mass media and advertisements. This presents an opportunity for new and existing businesses to invest in green products.
2. Organizations can emphasize on ecological packaging in their promotional messages to target their consumers and enhance their brand image.

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