



Consumer purchase Awareness and Intension towards Green Products

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Abstract

This paper aims to analyze whether the Cost Effectiveness, Knowledge, Benefit and Promotional Strategy have significant effect on consumers purchasing intension towards green product in Nepal. A convenient sample of 288 respondents approaching self-administered questionnaires survey from different locations in Butwal has been conducted. Regression analysis were used to explore the relationship between independent variables (Cost Effectiveness, Knowledge, Benefit and Promotional Strategy) and dependent variable i.e. consumers purchasing intension. The results reveal that Cost Effectiveness, Knowledge, Benefit and Promotional Strategy have positive effect to determine the consumers purchasing intension towards green product in Nepal. Cost effectiveness, Benefit of the green product does not affect consumers purchasing intension towards green product in Nepal.

Key words- Green product, Cost Effectiveness, Knowledge, Benefit and Promotional Strategy, Consumer purchase intension, Multiple Regression, Correlation

I. Introduction

Green products are those that have less of an impact on the environment or are less detrimental to human health than traditional equivalents. Green products might, typically, be formed or part-formed from recycled components, be manufactured in a more energy-conservative way, be supplied to the market with less packaging, or be manufactured from local materials to reduce the need for transportation and reduce carbon footprints (or all four). Businesses and consumers today confront one of the biggest challenges – to protect and preserve the earth’s resources and the environment. They have become more concerned with the natural environment and are realizing that their production and consumption purchasing behavior will have direct impact on the environment **Laroche , Bergeron, Tomiul and Barbaro-Forleo (2001)**.The marketing of “environmentally friendly” products is considered as green marketing **Thapa(2008)**.Green

marketing has gained wide acceptance among several companies as being a viable competitive strategy **Shrum, McCarthy, Lowrey (1995)**.

According to The American Marketing Association, green marketing presume to be eco-friendly marketing which involves several activities like production process, change in packaging, product modification as well as advertising modification. Green marketing is the practice of adopting resource conservation and environment friendly strategies in all stages of the value chain **Johri , Sahasakmontri (1998)**. Green marketing, it is the aspect of manufacturing, promoting and selling the services / products which are environmentally sustainable and good health benefits for consumers and these are produced and packaged in a eco-friendly way **Addela (2020)**.

The products manufactured through green technology causing no environmental hazards are called green products. There are varieties of green product which are developed for the benefits of people and the environment as well. So the Promotion of green technology and green products is necessary for conservation of natural resources and sustainable development.

According to **Hallin (1995), McCarty and Shrum (2001)** people engage in environmental behavior as a result of their desire to solve environmental problem, to become role models and a belief that they can help to preserve the environment. However, the consumers' indications of positive attitude towards environmental issues do not necessarily lead to actual environmentally friendly purchasing behavior **Laroche (2002)**. Majority of consumers do not purchase products based on the environmental concern alone and they will not trade-off other product attributes for a better environment **Yam-Tang(1998)**.

Nepal is known to be "land of Forest". It is assumed that environmental consciousness among Nepalese is high. However, there is little empirical evidence to suggest that the environmental values and attitudes are congruent with the consuming public's actions toward green products. In addition, most studies have focused on the general environmental behavior instead of specifically on consumers' purchasing behavior towards green products. Therefore, gaps exist in the literature with regards to understanding Customer purchase Awareness and Intension towards Green Products. This research empirically examines the factors impacting Customer purchase Awareness and Intension towards Green Products in Nepal. The research also identifies factors that determine knowledge about the green product.

Objective of the study

1. To measure the relationship between cost effectiveness, Benefit and Promotional Strategy .
2. To examine the effect of cost effectiveness, Benefit, Knowledge and Promotional Strategy on Consumer Purchasing Intension.
3. To examine the relationship between Gender, Education, Occupation and Consumer Purchase Intension.

II. Theoretical Framework

The holistic view of green marketing intended that environmental friendly strategies must be adopted by the marketers by considering the entire chain of the events that the company enlists in because of the nature of environmental issues **Hess & Timen(2008)**. Consumers are not extremely bound to environment and they put too much responsibility on industry and government **Maheshwari & Malhotra (2011)**. Consumer growing concern for protecting the environment drives the demand for green products which motivates to improve the environmental performances of many companies.

A survey executed by (Chang, N. & Fong, C., 2010) on consumers who were experienced in purchasing green products had identified that there is a positive association between green product quality with consumer satisfaction and consumer loyalty. Insufficient information about green products is the major reason that acts as a discouragement for the non-purchaser in purchasing green products (**Gan, Zhiyou, Tran, Cohen & Xiangxiang (2014)**).

The realization of the consumers about their roles and responsibilities towards environmental protection is gradually changing and companies are looking forward to making more environmentally friendly products, lessening the wasted materials and performing more organized operation. **Cherian (2012)**. On the other hand, **Khedkar (2015)** pointed out that consumer think companies should act in accordance with the environmental laws set by the country, but marketers' activities and advertisement were not act as influential factors to the decision regarding the purchase of green products. Consumer's desire for organic food for the safety of health and environment influences their temptations towards organic foods **Gan, Zhiyou, Tran, Cohen & Xiangxiang (2014)**.

So it is observed from the above discussion that many studies have been conducted on Customer purchase Awareness and Intension towards Green Products. However to the best knowledge of the researchers has no comprehensive study has so far been conducted to explore and assess consumer awareness and purchase intension towards green product. So the study in hand is an exploratory research on the above mentioned area.

Theoretical Framework

Consumer purchase intention is a process by which an individual plans future purchase of goods and services. It is a sum total of a consumer's attitude, preference, and decision regarding consumer's behavior in the marketplace.. Consumer Purchasing Intension is affected by advertising. Public relation, social media and other channels etc.) **Chang & Fong(2010)** Made a survey of the consumers who purchased environmentally friendly products in Taiwan and found that green product quality and green corporate image could bring greater customer satisfaction and customer loyalty. **Whitlar, Geurts & Swenson(1993)** Define purchase intention as a purchase probability associated with an intention category at the percentage of individuals that will actually buy product. This model shows green Product as independent variable, which influences the consumer's Perception to purchase. Other factors such as gender act as moderating variable.

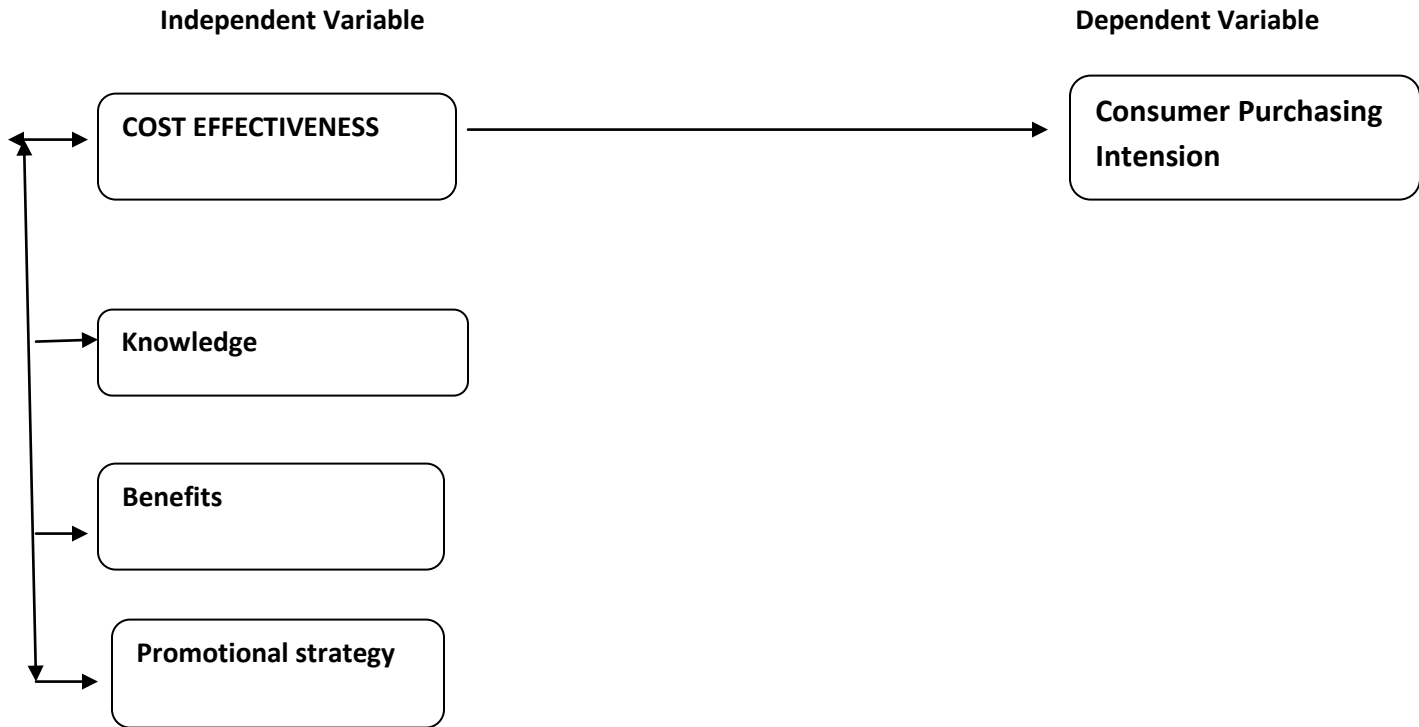


Fig. 1 Theoretical Framework of the study

Consumer Purchase Intension:

Consumer Purchase intension refers to willingness to buy any product or any type of service. Consumers' Purchase Intentions and Their Behavior reviews the relevant literature on purchase intentions in marketing, and more generally on the intentions-behavior relationship in social psychology, since purchase intentions are a particular form of the more general construct of intentions **Morwitz (2012)**.

Cost Effectiveness:

Cost –effectiveness is the extent to which the program has achieved or is expected to achieve its results (outcomes/impact) at a lower cost compared with alternative. The concept of cost effectiveness is applied to the planning and management of different types of organized activity.it is widely used in many aspect of life. Cost – effectiveness analysis seeks to identify and place dollars on cost of program. It then relates these costs to specific measures of

Program effectiveness. The cost effective solution is the one which provides maximum output with the minimum cost possible.

Benefit:

Purchasing a green product have got so many benefit to the environment, society etc. Today's generation are following go green concept wants eco friends product for daily consumption basis. Buying green products and services can increase your organization's efficiency, enhance its public image, and is an excellent way to reduce your operations' impact on the environment (Explore our extensive annotated list of green purchasing related websites.).

Promotional Strategy:

A promotional strategy is an actionable plan to influence people about your business, generate more leads, and boost customer engegemet.it visualizes hoe to perform your marketing strategy and communication, which to target as your audience, and when to execute the promotional plan **trillo (2021)**.

III. Research Methodology

Research Design

This study investigates the factors which influence the Customer purchase Awareness and Intension towards Green Products .The research design of this study is descriptive as well as analytical research. Primary and secondary data are used in this research. The primary data defined as the data collected first hand for subsequent analysis to find solutions to the research problem. The primary data were obtained from a structured questionnaire survey while the secondary data refer to information gathered by someone other than the researcher conducting the current study. The secondary data were obtained from books, journals, internet website etc. to access the respondents of this study for data collection, the questionnaires were distributed the respondents by handed personally. Confidentiality was assured by encouraging the respondent to return back the questionnaire directly.

Population and Sample size

The population of this study is directly means all consumers who used to consume the green product. It is practically rather impossible to examine the whole population of interest. The

sample size (n=288) was computed. Convenience sampling method has been applied for collecting the response from the respondents of Butwal sub metropolitan city. A total of 300 sets of questionnaire were distributed to respondents, only 288 were returned.

Sample is a sub –set of population which should be sufficient enough for broad generalization of the study. For known population (**yamane, 1967**) formula can be used to calculate the sample size. In this perspective, for known population size the Yamane formula for determining the sample size is mentioned below:

$$n=N/(1+Ne^2)$$

Where

n=Sample size

N=population size

e= error i.e 0.05

Method Of data collection

The primary data analysis were carried out on the basis of response derived from structured questionnaire survey through electronic way(mails, Friends book).In first section of the questioner , respondent were asked to provide background information on their Gender , Education, Occupation , Features and information about green product. Second section consist of total 17 statements about Customer purchase Awareness and Intension towards Green Products. the statements were designed in 5 points Likert Scale items where respondents were asked to state their level of agreement and Disagreement indicating 1 to 'Strongly Disagree' and so on up to 5 to 'Strongly Agree'.

Method for data analysis

The use of variety of statistical tools has been done so as to achieve reliable results from the data collected. For the interpretation of data mean, ANOVA tests were used. Statistical Package for the Social Sciences (SPSS, version 20) software has been used to store and draw outputs as per the requirement of the research objectives. Along with this, Microsoft excel has also been preferred by the researcher for developing graphs and bar diagrams along with few other purposes Since the

data were not normal ,so Non- parametric test has been done. In Non- parametric test Men-Whitney test and Kurscol's Walles test has been conducted. Correlation analysis was done to check the relation between the predictors and dependent variables. Multiple regression analysis was used for testing hypothesis. ANOVA was used to check the overall fitness of model. The result of analysis has been properly tabulated, analyzed and interpreted.

Regression Model

$$Y=a+b_1X_1+b_2X_2+b_3X_3$$

Where

Y= Consumer Purchasing Intension

X1=Cost Effectiveness

X2=Benefit

X3=Promotional Strategy

Inferential statistics

Based on the study framework, this study attempts to test the following alternative hypothesis:

H1: Gender has a direct significant impact on consumer's purchasing intension towards Green product.

H2: Education has a direct significant impact on consumer's purchasing intension towards Green product.

H3: Occupation has a direct significant impact on consumer's purchasing intension towards Green product.

H4: Cost effectiveness has a direct significant impact on consumer's purchasing intension towards Green product.

H5: Benefit has a direct significant impact on consumer's purchasing intension towards Green product.

H6: Promotional Strategy has a direct significant impact on consumer's purchasing intension towards Green product.

IV. Results and Conclusion

Demographic profile

The table 1 depicts the demographic profile of the respondents which includes information on Gender, Education, Occupation, features and Information. As the Gender of respondents is concerned, 67.7% is female and 32.3% is male. Education wise, SIC/see, undergraduate, graduate, masters level respondents are 0.7%, 15.6%, 55.9%, 22.9% respectively. Occupation wise student, job holder, un-employed, business, others respondents are 30.2%, 32.3%, 1.4%, 32.6%, 3.5% respectively. Features wise Healthy and Safe, Made with natural ingredients, Energy efficiency, Eco friendly packaging, Reusable respondents are 29.9%, 14.2%, 17.4%, 14.9%, 23.6% respectively. Information wise, Advertisement, Word of mouth, Friends, Past experience, Shopper Response respondents are 39.6%, 17.4%, 13.5%, 18.8%, 10.8% respectively.

Table No.1 Respondents Profile

Gender

Demographic variables	Frequency	Percentage
Gender		
Female	195	67.7
Male	93	32.3
Total	288	100.0
Education		
SLC/SEE	2	0.7
Undergraduate	45	15.6
Graduate	161	55.9
Master level	66	22.9
Total	288	100.0
Occupation		
Student	87	30.2
Job holder	93	32.3
Unemployed	4	1.4
Business	94	32.6
Other	10	3.5
Total	288	100.0

Features		
Healthy and Safe	86	29.9
Made with natural ingredients	41	14.2
Energy efficiency		
Eco friendly packaging	50	17.21
Reusable	43	14.9
Total	68	23.6
	288	100.0
Information		
Advertisement	144	39.6
Word of Mouth	50	17.4
Friends	39	13.5
Past Experience	54	18.8
Shopper Response	31	10.8
Total	288	100.0

Reliability Test

The reliability of used measurement scales were tested using Cronbach's alpha coefficient. The overall reliability of the response on 4 variables has been tested by using Cronbach's alpha. Cronbach's alpha of all 4 variables Consumer Purchase Intension, Cost Effectiveness , Benefit And Promotional Strategy which is .806,0.727,0.813,0.779 Respectively which is acceptable and it indicates that the internal consistency of variables is good. (Cortina, 1993)

Table 2: Reliability Test

Variables	Cronbach's Alpha
Consumer Purchase Intension	.806
Cost Effectiveness	.727
Benefit	.813
Promotional Strategy	.779

Note: Table 2. Reliability test has been adopted from output of Data Analysis

Table 3: Descriptive Statistics

Statements	N	Mean	Std. Deviation
Cost Effectiveness	288	8.2951	1.30653
Benefit	288	14.8715	3.65891
Promotional Strategy	288	12.1458	2.10845

The table 3 shows the descriptive statistic of the response of participants towards the factor under study. The mean value of Cost Effectiveness, Benefit, Promotional Strategy are 8.2951, 14.8715, 12.1458 respectively which is near to 4 (labeled agree in measurement scale). This indicates that the response of Consumer Purchasing Intension with Cost Effectiveness, Benefit and Promotional Strategy is inclined towards agree. All the independent variables have standard

Statements	Consumer Purchase Intension
Mann-Whitney U	8455.500
Wilcoxon W	27565.500
Asymp. Sig. (2-tailed)	.343

deviation above 1. It means that the mean result is not accurate. The mean value of Benefit is reported highest as 14.8715. This shows that the Benefit is greater determinants for affecting consumers purchasing intension towards green product.

Test for the difference in Gender with regard to factor Influencing Consumer Purchasing Intension

Table NO 5: Mann Whitney U test based on Gender

In the Table 4 the P value is 0.343 is more than 0.05 it means we accept Null Hypothesis. Hence we conclude that there is no significant relationship between Gender and Consumer Purchasing Intension at 5% level of significance. Hence we conclude that Gender does not effect on the Purchasing Intension of Green Product.

Table 5: Test for the difference in Education with regard to factor Influencing Consumer Purchasing Intension

Statements	Consumer Purchase Intension
Chi-Square	1.954
Asymp. Sig.	.582

In the table 5 the P-value ($P > 0.05$) is 0.582 which is more than 0.05 it means we accept Null Hypothesis. Hence we conclude that there is no significant relationship between Education and Consumer Purchasing Intension at 5% level of significance. Hence we conclude that Education does not effect on the Purchasing Intension of Green Product.

Table 6: Test for the difference in Occupation with regard to factor Influencing Consumer Purchasing Intension

Statements	Consumer Purchase Intension
Chi-Square	5.665
Df	4
Asymp.Sig	.226

Since ($P > 0.05$) P-value is 0.582 which is more than 0.05 it means we accept Null Hypothesis. Hence we conclude that there is no significant relationship between Occupation and Consumer Purchasing Intension at 5% level of significance. Hence we conclude that Occupation does not effect on the Purchasing Intension of Green Product.

Correlation Analysis

Table No. 7: Inter Items Correlation

Variables	Consumer Purchase Intension	Cost Effectiveness	Benefit	Promotional Strategy
Consumer Purchase Intension	1.000			
Cost effectiveness	.232**	1.000		
Benefit	.443**	.472**	1.000	
Promotional Strategy	.657**	.421**	.633**	1.000

Since from the above table no.7 it can be seen that the correlation analysis (r)value for all variables i.e Consumer purchase intension, Cost effectiveness, Benefit, Promotional Strategy are 0.657,0.421,0.633,1 respectively which means there is strong positive linear relationship between Consumer purchase intension, Cost effectiveness, Benefit, Promotional Strategy.

Test of Multi Collinearity

Table No. 8 Collinearity Statistic

Model	Collinearity Statistics	
	Tolerance	VIF
Cost Effectiveness	.764	1.308
Benefit	.555	1.801
Promotional Strategy	.591	1.691

a. Dependent Variable: Consumer purchase intension

Variance Inflation Factor (VIF) and tolerance measures the multi-collinearity among the independent variables.

It is denoted by:

$$VIF_j = 1/1-R_j^2$$

The above table shows that tolerance values are more than 0.1 and value of VIF is less than 10 in all independent variables and moderating variables. So regression model is free from multi Collinearity.

Table 9: ANOVA

Multiple Regression Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	727.240	3	242.413	56.177	.000 ^b
Residual	1225.507	284	4.315		

a. Dependent Variable: Consumers purchase Intension

b. Predictors: (Constant), Cost effectiveness, Benefit, Promotional Strategy

Model Summary

$$Y=11.887+0.004X_1+0.068X_2+0.674X_3$$

Std Error of the Estimate (S.E) = 4.315

F value = 56.177

Correlation Coefficient (r) = 0.616

Coefficient of determination (r²) = 0.372

Table no. 9 exhibits that F- value and p- value of the model is 56.177 and 0.000 respectively which is significant at 5% level of significance. So the model is fitted linearly. R square of the model is 0.372 or 37.2% which means 37.2% of variation in consumers purchasing intension is explained by variation in independent variables (Cost Effectiveness, Benefit And Promotional Strategy) .

Table no 10: Regression Analysis

Model	B	Std. Error	t	Sig
Constant (α)	11.887	.901	13.187	.000
Cost Effectiveness(β_1)	.004	.107	.035	.972
Benefit (β_2)	.068	.045	1.520	.129
Promotional Strategy (β_3)	.674	.076	8.911	.000

Model

$$Y=11.887+0.004X_1+0.068X_2+0.674X_3$$

The result of the regression shows the value of R2 is 0.372 which means that 37.2 % variation in Consumer Purchasing Intension is explained by Cost Effectiveness, Benefit and Promotional Strategy. The rest 62.8% of Consumer Purchasing Intension is explained by .others factors.

Findings

Chi-square analysis of demographic variables and with other Independent variable with Consumer Purchasing Intension

Variables	P-value	Remark
Gender	0.343	Insignificant
Education	0.582	Insignificant
Occupation	0.582	Insignificant
Cost effectiveness	0.972	Insignificant
Benefit	0.129	Insignificant
Promotional Strategy	0.00	Significant

Conclusion

The study found that Cost Effectiveness, Benefit and Promotional Strategy are the major factors that influence Consumer Purchasing Intension towards Green Product. As these Factors tends to Increase the Purchasing intension toward Green product. Hence the study found that Cost Effectiveness and Benefits are not affecting on the purchase intension of the green product. It is found that the key factor that plays an important role consumer purchasing intension is

promotional strategy. So promotional strategy must be focused in order to increase the Consumer purchasing intension.

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