International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 05, 2020
ISSN: 1475-7192

Analyzing the Effect of Product, Promotion and decision factors in Determining Green Purchase Intention: An Empirical Analysis

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Abstract--- *Green products are eco-friendly and highly sustainable, widely acceptable for consumers health aspects. In this connation, it is considerable factor for a marketer to indulge his self to identify that what consumers' percept about the company's product and promotion factor that would intends the most and intern leads to green purchase decision. By intensive literature review the three higher order factors along with age, gender and educational qualifications are considered in the present study with price, product and promotion as independent factors which influence green product purchase intention. An empirical examination was performed through a survey by considering the sample size of 151 respondents who purchase green products. Descriptive and inferential statistical techniques are performed such as factor analysis and multiple regressions. By the observations it is evident that demographics has a considerable intervention along with product and promotion on purchase intention and subsequently intention leads to green purchase decision. Eventually, results along with discussions and conclusions are drawn in the study.*

Keywords--- *Green Product, Promotion, Intention, Green Purchase Decision.*

I. INTRODUCTION

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 (Ansar, 2013; Mahmoud, 2018; Saini, 2013). It is a view point of the marketer that potential and needed consumers would purchase or show intention to purchase these products because of seeking such benefits and their health conscious (Ansar, 2013; Saini, 2013). It is an obvious assumption that consumers of such conscious would prefer more green products than less-green products comparatively were, it is significant to study that factor which influence (Saini, 2013). In the present study along with product, price, promotion the intervening effect of socio-demographics such as age, gender and educational qualifications are studied.

II. LITERATURE REVIEW

In business, the words "green product" and "environmental product" are generally used for efforts to protect or stimulate the natural environment by conserving energy and / or resources and reducing or eliminating the use of harmful factors, pollution and waste (Mahmoud, 2018; Mahmoud, Ibrahim, Ali, & Bleady, 2017; Saini, 2013; Singh, 2014). The price that the consumer pays is actually the price of the product. It is a critical component of the

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DOI: 10.37200/IJPR/V24I5/PR201670
Received: 05 Feb 2020 | Revised: 01 Mar 2020 | Accepted: 18 Mar 2020

marketing mix (Rizwan & Siddiqui, 2014). Most consumers will only be willing to pay a premium if there is a perception of the added value of the product. Green advertising aims to influence consumers' purchasing behavior by encouraging them to buy products that do not pollute the environment and draw attention to the positive results of their purchasing behavior for themselves and the environment (Kalsi & Singh, 2015; Lee, 2017; Rizwan & Siddiqui, 2014; Singh, 2014). Purchase intention can be defined as "the likelihood that a consumer intends to purchase a product or service in the future"(Ansar, 2013). Positive purchase intention leads to real purchase or negative purchase intention that restricts consumer not to buy (Manideep, 2019d, 2019b, 2019a; Manideep, Reddy, & Reddy, 2019b).

III. RESEARCH DESIGN / FRAMEWORK

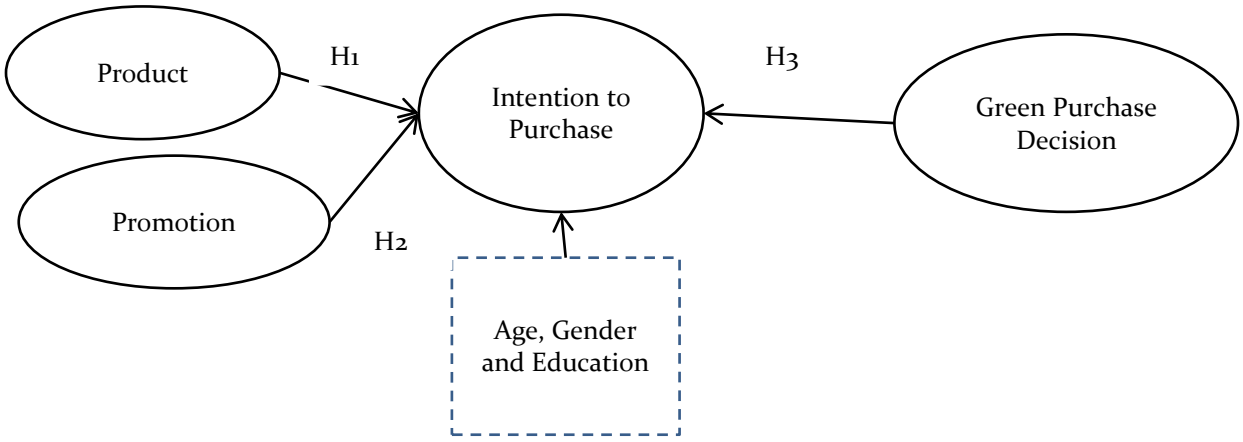

Figure 1: Research Design

IV. HYPOTHESIS FORMULATION

H1: Product factor has a significant positive effect on consumers' intention to purchase green products.

H2: Promotion factor has a significant positive effect on consumers' intention to purchase green products.

H3: Consumers' decision for purchase green products has a significant positive effect on Purchase intention.

H4: Socio-demographics age, gender and education aspects have a significant positive intervention on consumers' intention to purchase green products along with independent factors.

V. METHODOLOGY

The effects between the dependent construct purchase intention and the independent constructs i.e., product, promotion and intention are identified and evaluated using hierarchical multiple regression in which demographic factor age, gender and educational qualification interventions are observed and determined in a step-wise order. Validity data adequacy, reliability and correlations are performed.

Scale Design

The constructs of the proposed research model i.e., price, is been adopted from study made on implications of green products food products. The construct of product and promotion was also studied widely in the literature

DOI: 10.37200/IJPR/V24I5/PR201670
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(Kalsi & Singh, 2015; Mahmoud et al., 2017). The rough draft of the questionnaire was examined by field experts for face validity and some of the items are removed as suggested by the field experts. The final questionnaire contains the following items. The items of the intention construct are made according to the study as: 'Do you intent for purchasing green products', and 'do you intent to for green products from this company?' on a seven point scale (1=no trust to 7= complete trust). The second construct, product benefit is adopted from the studies made with respect to application of green products value (Mahmoud et al., 2017; Singh, 2014).

The adopted items are revised as to this study as, 'how beneficial do you consider these green products'. Semantic differential scaling is used to identify the intensity, evaluation criterion and potency of the construct on product construct (Intensity: 1= very low to 7=very high, and potency: 1=Very strong to 7= very week). The other vital construct of the model promotion is adopted for the study made to assess the perception of public on green products (Ansar, 2013; Rizwan & Siddiqui, 2014). The items of the construct are, 'feelings related to the promotion of green products' on a seven point scale (1-very positive to 7= very negative), 'promotional attractiveness related to the products on a seven point scale (1= not worried at all to 7= very worried), and the other item as, 'adverse health effects' on a seven point scale (1= not at all effect to 7= very adverse effect). The focused construct intention to purchase was adopted for the study made from recent literature (Ansar, 2013; Lee, 2017; Rizwan & Siddiqui, 2014; Saini, 2013;Manideep, 2019b; Manideep, Reddy, & Reddy, 2019a) and the scale was revised according to the present study as 'Green products offers enhanced features which is effective for environmental concern' and 'Compare to non-green products, these are beneficial for health' on a seven point scale (1= Strongly agree to 7= Strongly disagree).

The questionnaire consists of nine questions and all the questions were made in relevance to likert scale which is very famous in capturing intention and behavioral studies(Ansar, 2013; Jain, 2019; Kalsi & Singh, 2015; Mahmoud, 2018). The items in the scale are validated using explorative factor analysis (Manideep et al., 2019b).

Demographic Analysis

Participants' demographic characteristics: Convenience samples were drawn from Vijayawada urban area via mall intercept method. Before, distributing the questionnaire they were questioned about their awareness of green products / eco-friendly products. Only those who have had such an awareness of the subject area are considered as valid to be sampled inclusion.

The method adopted for data collection is a non-probabilistic sampling method- snowball sampling such that, referrals from consumers as a chain process responses are collected and about 155 responses are collected in that after eliminating the inappropriate and semi-filled responses are removed in the final process of data analysis and only a few about 4 responses cases are replaced with mean values and that task is achieved by SPSS. Finally, 151 samples are considered for analyzing the results. The effect of demographic factor age, gender and educational qualification are intervention factors observed along with independent constructs in the study.

DOI: 10.37200/IJPR/V24I5/PR201670
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Correlation among constructs

Table 1: Correlation and reliability Test

Study Construct	Green Decision	Intention	Product	Promotion	Reability	N
Green Decision	1	-.043	.132	.029	0.716	151
Purchase Intention	-.043	1	.267	.095	0.535	151
Product	.132	.267	1	.125	0.690	151
Promotion	.029	.095	.125	1	0.586	151

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Analyzing the demographic characteristics of the respondents, from the total sample adopted: about 61.90 percent are male and the rest i.e., 38.10 percent are females. When come to age of the respondents about 13.70 percent of the respondents are below 20 years, about 27.3 percent of the respondents are in the age of 20-25 years, and about 42.4 percent of the participants are in the age category of 25-30 years. Finally, about 16.5 percent of the respondents are above the age of 30 years. With respect to marital status of the respondents about 65.60 percent of the respondents are married and the rest about 34.40 percent are unmarried.

Moving to the other category, about 93.20 percent are in operational level, no respondents belong to tactical level and about 6.80 percent of the respondents are in strategic level. The most important aspect considered for our study is educational qualification of the respondents, about 71.9 possess graduation as qualification that are in majority and only few in number about 4.3 percent are of neither with any qualification.

Inferential Analysis

A principle components factor analysis was performed to determine the factors from the adopted questionnaire. Before to that, KMO and Bartlett's test was performed to determine the sample adequacy and it is found that by test it is 0.613 which is sufficient enough for performing factor analysis. This is represented in the below table. The items of the model are measured on a seven point likert scale were, mean and standard deviation of the model constructs are represented in the table below, that the mean of trustworthiness is 3.542, the mean of purchase intention is 3.942, the mean of message expertness is 4.892 and the mean of message attractiveness is 5.449.

The constructs and the items are drawn from the literature, but the validity and to examine the variance explained by these constructs to the proposed model a dimension reduction technique is used in the present study (Manideep, 2019a, 2019b; Sudheer, Reddy, & Manideep, 2019).

Table 2: Explained variance of the model

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.094	23.272	23.272	2.094	23.272	23.272	1.940	21.554	21.554
2	1.840	20.450	43.722	1.840	20.450	43.722	1.561	17.348	38.901
3	1.353	15.030	58.752	1.353	15.030	58.752	1.435	15.942	54.843
4	1.040	11.560	70.312	1.040	11.560	70.312	1.392	15.469	70.312
5	0.658	7.313	77.625						
6	0.450	4.999	95.699						

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All the items and its responses are loaded in SPSS and Exploratory factor analysis is performed and it is found that four constructs evolved and the variance explained by these constructs is about 70.312 percent. As per the literature, a model explaining 60 percent of variance is considered valid and .the factors are decided based on the eigenvalue, if the eigenvalue is >1 it is considered as a factor(Manideep, 2019b). The SPSS out below table 3 displays the result along with Rotation Sums of Squared Loadings.

Table 3: Extraction Method: Principal Component Analysis

	Component			
	Green Decision	**Intention**	**Product**	**Promotion**
GD1	0.846			
GD2	0.835			
GD3	0.716			
PI1		0.860		
PI2		0.845		
PRO1			0.844	
PRO2			0.827	
PROM1				0.817
PROM2				0.805
Rotation Method: Varimax with Kaiser Normalization.a				

The rotation technique in this model is varimax rotation, which is an non-orthogonal method that, from table 5, it can be determined that out of 15 items about 6 items are removed due to cross loadings and item loadings under that factor is less that 0.6 and this is done (Manideep, 2019b, 2019d, 2019a, 2019c). It can be observed from table 4, that all the items are >0.6(Correlated with that factor) and 3 items are under price construct, and 2 items are under product construct, promotion factor and at last 2 items under purchase intention construct. The factor analysis does not define any causal relation between the factors but the validity of convergent and divergent validity is evaluated by this.

Table 4: Standardized Regression Coefficients

Hierarchical Multiple Regression:						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.565	0.991	--	0.570	0.570
	Green Decision	0.236	0.131	0.141	1.802	0.074
	Product	0.283	0.084	0.264	3.361	0.001
	Promotion	0.194	0.159	0.096	1.221	0.224
2	(Constant)	1.705	1.082	--	1.575	0.117
	Green Decision	0.219	0.129	0.131	1.700	0.091
	Product	0.294	0.083	0.275	3.545	0.001
	Promotion	0.208	0.156	0.103	1.334	0.184
	Gender	-0.890	0.367	-0.187	-2.424	0.017

A serial multiple hierarchal regression method is used to observe the impact of the independent variables price, product and promotion on purchase intention from above table it can be determined that price is positively and

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significantly effects (β =0.251, P<0.05) the consumers purchase intention, promotion do not significantly effects(β =0.195, P>0.05) the consumers purchase intention and product positively and significantly effects(β =0.117, P<0.05) the consumers purchase intention and the awaited objective of the study that educational qualification of the consumer has a significant impact (β=-0.15,P<0.10)on the consumers purchase intention.

Table 5: Standardized Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.781	1.127	--	1.581	0.116
	Green Decision	0.223	0.130	0.133	1.712	0.089
	Product	0.295	0.08312	0.276	3.541	0.001
	Promotion	0.209	0.157	0.104	1.334	0.184
	Gender	-0.868	0.378	-0.183	-2.295	0.023
	Age	-0.049	0.195	-0.020	-0.254	0.800
2	(Constant)	2.663	1.194	--	2.229	0.027
	Green Decision	0.254	0.130	0.152	1.959	0.052
	product	0.311	0.083	0.290	3.751	0.000
	Promotion	0.188	0.155	0.093	1.214	0.227
	Gender	-0.794	0.376	-0.167	-2.115	0.036
	Age	-0.109	0.195	-0.045	-0.559	0.577
	Educational Qualification	-0.586	0.285	-0.160	-2.052	0.042
a. Dependent Variable: Intention to Purchase Green Product						

VI. RESULTS AND CONCLUSION

From the first model: message attributes along with educational qualification of the respondents have predicted a 14 percent of proportional variation (coefficient of determinant R^2 is 0.14). It is observed that the proportion of variation has increased by 3 percent (R^2 = 0.11, change in R^2=0.03) about 3 percent of the variance is explained by qualification of respondents and it is a key element in forming purchase intention.

Table 6: Model Summary

Model	**R**	**R Square**	**Adjusted R Square**	**R Square change**	**F change**	**Sig. F change**
1	0.318a	0.101	0.083	0.101	5.525	0.001
2	0.369b	0.136	0.112	0.035	5.877	0.017
3	0.369c	0.136	0.107	0	0.064	0.80
4	0.401d	0.161	0.126	0.025	4.212	0.042

Hence, it is proved that both the hypothesis, H1 and H2 are positive significantly associated with purchase intention means, both can contribute to formation of purchase intention and H3, the Message Trustworthiness was not significant that means consumers do not consider this as a considerable factor in purchase decision. The control variable qualification of respondents also a major decision contributing factor.

REFERENCES

[1] Ansar, N. (2013). Impact of Green Marketing on Consumer Purchase Intention. *Mediterranean Journal of Social Sciences MCSER*, *4*(11), 650–655.

DOI: 10.37200/IJPR/V24I5/PR201670
Received: 05 Feb 2020 | Revised: 01 Mar 2020 | Accepted: 18 Mar 2020

[2] Jain, D. K. (2019). Impact Of Green Marketing On Consumer Behavior : A Study With Special Reference To Jammu "Special Issue On Startup And Innovation February-2019. *Gap Interdisciplinarities*, *2*(1), 49–57.

[3] Kalsi, P. S., & Singh, I. (2015). Impact of Green Marketing Mix on Consumers' Purchase Behaviour : A Study in the Jalandhar Region of Punjab. *International Journal of Engineering and Management Research*, *5*(1), 267–272.

[4] Lee, Y. K. (2017). A Comparative Study of Green Purchase Intention between Korean and Chinese Consumers : The Moderating Role of Collectivism. *Sustainability*, *9*(1930), 1–17.

[5] Mahmoud, T. O. (2018). International Journal of Advanced and Applied Sciences Impact of green marketing mix on purchase intention. *International Journal of Advanced and Applied Sciences*, *5*(2), 127–135.

[6] Mahmoud, T. O., Ibrahim, S. B., Ali, A. H., & Bleady, A. (2017). The Influence of Green Marketing Mix on Purchase Intention: The Mediation Role of Environmental Knowledge. *International Journal of Scientific & Engineering Research*, *8*(9), 1040–1048.

[7] Manideep, A. S. (2019a). Factors Influencing the Adoption of Social Media Marketing in the Wellness Industry : An Empirical Analysis. *Journal of Advanced Research in Dynamical and Contral Systems*, *11*(6), 356–362.

[8] Manideep, A. S. (2019b). Impact of Social Network Advertisements on Brand Equity of Wellness Firms and the Mediating Role of Brand Awareness : An Empirical Analysis ABSTRACT : *International Journal of Management and Business Research*, *9*(June), 46–53.

[9] Manideep, A. S. (2019c). Nanotechnology And Its Implications In Manufacturing. *International Journal of Mechanical and Production Engineering Research and Development*, *2*(Special Issue), 284–292.

[10] Manideep, A. S. (2019d). The Effect of Adoption of E-commerce on Business Performance : An Empirical Analysis. *International Journal of Basic and Applied Research*, *9*(5), 376–382.

[11] Manideep, A. S., Reddy, M. S. K., & Reddy, P. S. (2019a). Consumers' Perceptions on Nanotechnology Enabled Cosmetic Products in Conception of Physical Wellness. *JOURNAL OF MECHANICS OF CONTINUA AND MATHEMATICAL SCIENCES*, *14*(5), 899–909.

[12] Manideep, A. S., Reddy, P. S., & Reddy, M. S. K. (2019b). Consumers' Perception on Purchase of Wellness Products : An Empirical Analysis. *International Journal of Innovative Technology and Exploring Engineering*, *8*(7), 1715–1719.

[13] Rizwan, M., & Siddiqui, H. (2014). An Empirical Study about Green Purchase Intentions. *Journal of Sociological Research*, *5*(1), 290–305.

[14] Saini, B. (2013). Green marketing and its impact on consumer buying behaviour. *International Journal of Engineering Science Invention*, *2*(12), 61–64.

[15] Singh, S. (2014). Consumer's Attitude and Purchase Intention towards Green Products in the FMCG Sector. *Pacific Business Review International*, *7*(6), 27–46.

[16] Sudheer, S., Reddy, M. S. K., & Manideep, A. S. (2019). The Influence of Source Credibility, Endorser Credibility and Message Appeal on Consumers' Purchase Intention : An Empirical Analysis. *International Journal of Recent Technology and Engineering*, *8*(1), 2845–2850.

DOI: 10.37200/IJPR/V24I5/PR201670
Received: 05 Feb 2020 | Revised: 01 Mar 2020 | Accepted: 18 Mar 2020