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IMPACT OF PERCEIVED BEHAVIORAL CONTROL ON GREEN SPECIALTY GOOD'S PURCHASE INTENTION – MODERATING EFFECT OF GREEN PRODUCT KNOWLEDGE

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Abstract

Many factors influence consumers' purchase intention, but which of these many factors is more significant in consumers' green purchase intention is a significant question to be asked and proved right. The present study attempts to understand how perceived behavioral control influences the green purchase intention of consumers who use specialty goods in their life. The association between perceived behavioral control and green purchasing intention was also examined, using green product knowledge as a potential moderator. Data from 386 randomly selected samples were analyzed using a structural equation model based on partial least squares. The results indicate that customers' green purchasing intentions are affected by their sense of behavioral control, and that knowledge about green products has the potential to attenuate this link even further. The study concludes with a discussion of its findings and some suggestions for further research.

Keywords: Green Purchase Intention, Green Product Knowledge, Moderation Perceived Behavioral Control, Theory of Planned Behavior

INTRODUCTION

The end product of an educated society is a healthy environment. Countries must create and apply legislation to increase environmental training for sustainable surrounds. The increasing human population, widespread use of automobiles, and tree cutting are all contributing to India's rapidly deteriorating ecological situation. Environmental degradation is only one of the problems that has to be addressed in India, a growing nation, and this may be accomplished via public health and sanitation education. People are less likely to be educated about the safety and sustainability of their environmental surroundings because they have received a subpar education regarding the fact that environmental circumstances were greatly influenced by an increase in the quantity of carbon dioxide in the atmosphere. To the same extent, environmental deterioration is caused by a lack of understanding about environmental safety. Degradation of the environment occurs when natural resources like water, air, and soil are abused or depleted, causing the planet to fall apart. The adoption of pro-environmental action as a moral obligation of humans indicated a heightened awareness of the environment in the western half of the globe.

Previous studies found that various factors, such as environmental distress, attitudes, product pricing, and perceived consumer effectiveness, constrained consumers' intentions to make green purchases. Consumers with greater degrees of environmental concern are more likely to make ecologically responsible purchases. Attitudes were the primary determinant of conduct

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that was environmentally beneficial. Even if consumers strongly favor environmentally safe products, their purchasing decisions are nonetheless influenced by price. Kim and Choi made the case that those who considered themselves more effective consumers were more likely to exhibit environmentally beneficial behavior. Currently, many academics believe that product knowledge The current research aims to learn why certain people are more likely to make environmentally conscious decisions while purchasing luxury items than others. From the study of planned conduct comes the concept of "perceived behavioral control." It also hopes to see whether green product knowledge moderates the connection between self-efficacy and eco-conscious purchasing decisions. This study fills a need in the literature on green marketing that has not been thoroughly explored before.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Affective regulation and the intention to buy sustainably produced goods

Intention to make green purchases and perceived behavioral control

A person's perception of his or her ability to govern their conduct in regards to taking use of chances and resources like social interaction and acquired abilities is fairly self-evident (Stern, 2000). The power of the idea of planned conduct is expanded to include non-decisional activity via the lens of perceived behavioral control. It acts as a mediator between the individual's impression of a product's ease of use or difficulty of use and the actual experience of using that product. This holds true even in the sphere of environmentally friendly items (Ajzen, 2010).

Individuals' propensity to engage in environmentally friendly purchasing practices, motivated mostly by a desire to reduce their environmental impact, is known as "green purchase intention." A direct antecedent of conduct makes it implicit. "the probability that customers would desire to acquire ecologically friendly items," as described by Chen et al. People buy eco-friendly goods not to ruin the environment, but to save it (Roe et al., 2001). Buying green goods, making the transfer from conventional brands to green ones because of concern for the environment, and making a whole transition to a green product are all indicators of a consumer's green purchasing intent. It was also considered that a customer's perceived behavioral control represented their belief in their own capacity to carry out the targeted action. Evidence was uncovered that suggested that a sense of agency over one's conduct has a beneficial effect on the likelihood that one would actually act on the intention to do so. We hypothesized a similar pattern would emerge in environmentally conscious purchasing decisions. The following was proposed based on the findings of the investigation.

H_1: "perceived behavior control has significant positive impacts on green purchase intentions."

Moderation of Green Product Knowledge

The possibility of green consumer behavior can be increased, and good resource conditions can reduce barriers. People who are more knowledgeable about a product may better understand its worth and be more motivated to follow green purchasing practices "(Carlson, L.; Grove, S.; Kangun, N. A, 1993). Conversely, those with less product knowledge are less familiar with

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green items and lack the drive to overcome obstacles (Guo, Q.Q.; Hu, S.F.; Zhu, H.B. 2013)." In other words, when faced with poor perceived behavior control, these consumers would consider various harmful consequences of their green purchasing decisions, such as wasting their time or money. As a result, increased product knowledge would reduce perceived behavior control's predictive effectiveness, whereas decreased product knowledge would have the opposite effect. This study's proposal was the following in light of the investigation above:

H_2: "Product knowledge has a moderating effect between perceived behavior control and green Purchase intentions."

METHODOLOGY AND MEASUREMENTS

The study is quantitative, in which a structured questionnaire was developed and used as a survey instrument for data collection. The energy-efficient air conditioner was the selected product category under the specialty goods segment. Respondents were asked to share their responses to the questionnaire developed based on three measured constructs: "perceived behavioral control, green purchase intention, and green product knowledge." The measurement items of each construct were extracted from the vast literature. "Green Purchase intention measurement items were extracted from Bagozzi et al.(2001)," whereas perceived behavioral control measurement items were extracted from Fielding's (2008) work. The Green Product knowledge scale was selected from Gleim (2013). "All the constructs were measured using a Likert 5.0 rating scale with the labels of 1: Strongly Disagree, 2: Disagree, 3: Neither Agree nor Disagree, 4: Agree, and 5: Strongly Agree." Through the mall intercept method, responses were collected from 412 randomly selected respondents, out of which 386 samples were found useful for data analysis. It was around three of the period spent on data collection.

Sample questions

The study was measured with standard measurement items of each construct as perceived behavioral control was measured with items such as "It's easy to buy a green product (PBC1); I can't decide whether to buy this kind of product (PBC2); It is very likely I will choose green products next time (PBC3); Buying habits will have a strong impact on decision making (PBC4); Past purchase experience will have a strong impact on decision-making (PBC5) whereas green purchase intention was measured with Comparing with ordinary non-green products, I am more willing to buy green products. (GPI1); the next time to buy, the possibility of choosing green products is very high. (GPI2); the next time to buy, the desire to choose green products is not strong (GPI3)". Green product knowledge was measured with items like I am familiar with this kind of green product (PK1); When buying green products, I read the specific information on the label (PK2); I believe in testing and identifying green products that are implemented by certification organizations (PK3)."

To test the hypothesized relationship between the exogenous and endogenous and moderating variable, we used PLS based structural equation model, a multivariate analysis of multiple regression by using SMART PLS 3.0 version

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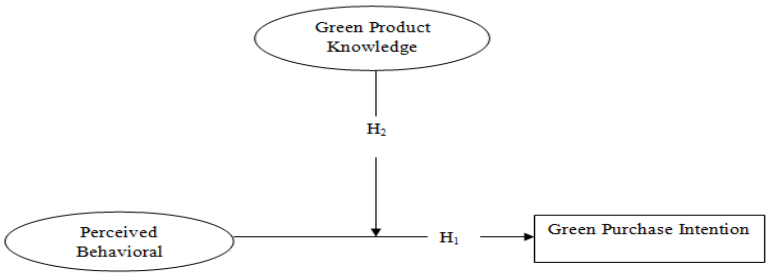
Conceptual Model



Source: Author's own model

"**Demographic Profile of the Respondents**"

Table 1 shows the brief details of the demographic profile of the respondents. The demographic profile includes gender, age, education, income, and experience of green product purchase. The study portrays 284 male respondents, whose percentage is 73, which is higher than female respondents, whose number is 102 (27%). The majority (46%) of respondents were found with 30 to 35 years of age, whereas the remaining respondent's age was found between 20 to 25 years (25%), 35 to 40 years (13%), 25 to 30 years (8%); and above 40 years (8%). A higher number of respondents was found with 30000 to 40000 INR monthly income (47%), while 74% of respondents held under graduation as their educational qualification.

Table 1: Respondent's Demographic Profile

Demographic Variable	Number of Respondents	Percentage
Gender		
• Male	284	73
• Female	102	27
Age		
• 20-25 Years	98	25
• 25-30 Years	32	08
• 30-35 years	176	46
• 35- 40 Years	49	13
• Above 40 years	31	08
Income		
• 20000-30000 INR	113	29
• 30000-40000 INR	182	47
• 40000-50000INR	32	08
• Above 50000 INR	59	16
Education		
• Primary Education	08	2
• Secondary Education	16	4
• Under Graduation	286	74
• Post-Graduation	76	20
Green Product Purchase Experience		
• Yes	386	100
• No	00	00

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Empirical Results

The mean response rate on each construct, along with its major deviation and correlation, are shown in table 2. Respondents shared their acceptance towards each item and measured the corresponding construct positively since the mean green purchase intention score was 3.8, and "the standard deviation was 0.94. In contrast, the mean response of perceived behavioral control was found as 3.98," whose standard deviation is 1.02. Green product knowledge has been rated at a 4.04 mean score and 0.56 standard deviation. The Bivariate correlation between the constructs was normally in the range of 0.3 to 0.5.

Table 2: Mean, SD, and Bivariate Correlation

Sl. No	Variables	Mean	SD	Correlation		
				PBC	GPI	GPK
1	Perceived Behavioral Control	3.98	1.02	1		
2	Green Purchase Intention	3.80	0.94	0.32***	1	
3	Green Product Knowledge	4.04	0.56	0.46***	0.387***	1

Measurement Model

Convergent Validity, Discriminant Validity, and Reliability Analysis

Hair et al. (2006) suggested that reliability analysis was performed to check the latent variables scale reliability to see whether these reliability scores are above the threshold of 0.70. All three constructs were found with above 0.70 reliability scores, thus confirmed the reliability test was satisfactory in the present study (see table 3). Further, we proceeded to test the convergent validity of the constructs by referring average variance extracted. Selected constructs have got above 0.50 average variance extracted, which confirms there is less error and more valid variance explained by each measurement item of each construct in the study (Gotzet al., 200; Fornell and Larcker, 1981). See table 3.

Table 3: Reliability Analysis, Convergent and Discriminant Validity

Sl. No	Items	Standardized loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
1	**"Perceived Behavioral Control**				
	PBC1	0.831	0.78	0.876	0.678
	PBC2	0.804	0.79	0.833	0.732
	PBC3	0.811	0.74	0.821	0.703
	PBC4	0.867	0.76	0.823	0.732
	PBC5	0.845	0.71	0.854	0.767
2	**Green Purchase Intention**				
	GPI1	0.821	0.78	0.789	0.634
	GPI2	0.878	0.79	0.821	0.721
	GPI3	0.867	0.73	0.845	0.699
3	**Green Product Knowledge**				
	GPK1	0.843	0.78	0.711	0.701
	GPK2	0.876	0.72	0.767	0.732
	GPK3	0.821	0.75	0.798	0.715"

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From the above table, we have also shown evidence for discriminate validity. Each factor shared variance is less than the value of "the square root of the average variance extracted (Fornell and Lacker, 1981). Table 4 shows the values of inter-construct correlation. The square root of AVE wherein the perceived behavioral control square root value is greater than the inter-construct correlation (AVE square root: 0.732 > r: 0.421 & r: 0.389). In comparison, the green purchase intention square root of the average variance extracted is greater than the inter-construct correlation" (see table 4).

Table 4: AVE square Root, Inter Construct Correlation, Mean, and Standard Deviation

Sl. No	Variables	Perceived Behavioral Control	Green Purchase Intention	Green Product Knowledge
1	"Perceived Behavioral Control	**0.732**		
2	Green Purchase Intention	0.421	**0.756**	
3	Green Product Knowledge"	0.389	0.478	**0.783**

Global Goodness-of-fit-index

The ratio between "the geometric mean of average variance extracted and average R^2 was the criterion for looking at the hypothesized model's global goodness-of-fit index in the present study. Usually, the GFI ranges from 0 to 1. Tenenhauset al., 2005; Cohen, 1988 and Wetzelset al. 2009 has classified the global goodness-of-fit-index into three levels small (GoF< 0.25), medium (0.25<GoF< 0.35), and large (GoF> 0.35). In the present study, GoF was achieved at 0.634, which comes under the large level of GoF according to Tenenhauset al., 2005; Cohen, 1988 and Wetzelset al.; 2009; therefore, the model has better explaining control in assessment with the baseline values defined above. Thus, the model provides adequate support to validate the PLS model globally."

"Structural Model"

Due to a cross-validated redundancy result (Stone-Geisser test Q2) of 0.528, which is larger than 0, it can be concluded that the model used in the current investigation has predictive potential. The model has a high power of explanation since the exogenous variable (Green Purchase Intention) is explained by 81% of the variation in the endogenous variable (Perceived Behavioral Control). By resampling the data from the means of the t-tests, standard errors were estimated for the statistical significance of the path coefficients using a bootstrapping test (Yi and Davis, 2003).

In particular, table 5 displays the route coefficients and t-values that correlate to them. Hypothesis H1 is still valid since there is a substantial correlation between consumers' sense of behavioural control and their purpose to make environmentally conscious purchases (1=0.452, t value= 10.231, p0.05). Accordingly, we acknowledge that in the Indian context, as in the United States, customers' Green buy intention is impacted by perceived behavioural control, particularly in the speciality products product category.

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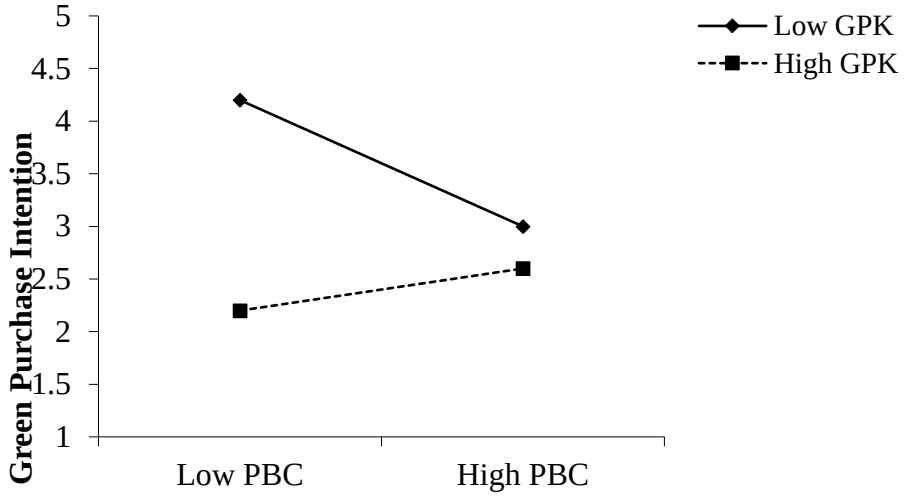
Table 5: Path Results

Hypothesized path	Path Coefficient	t-value	Alternative hypothesis supported/ not supported
"Perceived Behavioral Control → Green Purchase Intention	0.452	10.231	Supported
Moderation effect			
Perceived Behavioral Control * Green Product Knowledge → Green Purchase Intention"	0.314	7.532	Supported

For the second hypothesis, we investigated whether or not H2 holds true: whether or not knowledge of green products moderates the connection between perceived behavioural control and green purchasing intention. Perceived behavioural control and respondents' green product knowledge were coded as two dummy labels, also called interaction terms, which were multiplied to determine the moderating influence of green product knowledge on the relationship. This is an appropriate method of assessing the interaction effect with latent variable interactions (Ping, 1995). Table 5 projects the statistical evidence for accepting H_2, which assumes that "green product knowledge moderates the relationship between perceived behavioral control and green purchase intention because β2=0.314,t-value=7.532, p< 0.05. Therefore, we ascertain that green purchase intention influenced by perceived behavioral control is significantly moderated by the consumers' green product knowledge," as shown in figure 1. Thus we accept H_2



DISCUSSIONS AND RECOMMENDATIONS

The present research paper aims to investigate the influence of perceived behavioral control on green purchase intention with a special focus on specialty goods as a product category. Using PLS structural model, we tested the hypotheses and "found that perceived behavioral control significantly influenced consumer green purchase intention; therefore, we accepted the

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hypothesis H1: perceived behavioral control has significant positive impacts on green purchase intentions". Having accepted this hypothesis, we justify that when consumers perceive skills and cooperation from others, their behavioral perception toward situational factors, ease of use, availability of product information, etc. become more difficult or ease to perform the task. Further, it is proved to be significant in the specialty goods segment of green products from the Indian market. As an extended theory of planned behavior, the study contributed significantly by explaining an additional factor, perceived behavioral control. It has great explanatory power in explaining consumers' green purchase intention.

Additionally, we have also tested "the moderating effect of green product knowledge in the relationship between perceived behavioral control and green purchase intention. The test of the moderation effect of green product knowledge in the relationship between perceived behavioral control and green purchase intention was statistically significant; hence we conclude that hypothesis H_2: Product knowledge has a moderating effect between perceived behavior control and green Purchase intentions." was accepted. Based on the study results, low perceived behavioral control influence on green purchase intention was moderated by low green product knowledge vise-a-versa it would be in reverse case of high perceived behavioral control and high green product knowledge.

With the support from the study results, we recommend certain recommendations to the practitioners and management of green product manufacturers who wish to promote environmental safety products, especially in the specialty goods product category. The Indian manufacturing sector has been becoming more environmentally safety conscious, enforced by government initiation toward green manufacturing; therefore, it is an opportunity for the business managers to ascertain going green in all their key business operations such as quality production, green manufacturing, promoting green product knowledge, marketing of green products, etc. We recommend that companies manufacturing specialty goods should create better product awareness and ensure consumers' green product knowledge is also promoted.

Limitations and Future Research scope

The study, even though it tried its level best to accomplish the set objectives and hypotheses testing, it has certain limitations obviously, such as the study has focused only on specialty product categories by which the replication of the findings was confined to be limited; therefore, future research can be on different product category other than specialty products to see how to present research findings pertain certainly. Another limitation of the study was that only "perceived behavioral control as an extended factor of a theory of planned behavior was considered for testing the influence on green purchase intention; however, subjective norms and attitudes could also be studied in such relation and thus would be a future research scope."

CONCLUSION

The theory of planned behavior's concept of perceived behavioural control was used to provide a possible explanation for why Indian consumers have a particular interest in eco-friendly speciality products. Furthermore, the connection between perceived behavioural control and

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green purchasing intention was investigated while taking green product knowledge as a moderator. The study found that consumers' feelings of agency have a substantial role in their propensity to make environmentally conscious purchases. As time goes on, however, one's familiarity with eco-friendly products considerably modifies this connection.

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