Article

Purchasing Eco-Sustainable Products: Interrelationship between Environmental Knowledge, Environmental Concern, Green Attitude, and Perceived Behavior

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Abstract: Due to eco-sustainable marketing practices, customer consciousness has increased the use of eco-sustainable goods in India. This provides new opportunities for businesses and researchers in terms of eco-sustainable behavior; however, the market analysis in India is weak. This study examines the factors that trigger consumers to purchase eco-sustainable products and the interrelationship between environmental knowledge (EK), environmental concern (EC), green attitude (GA), and perceived behavior control (PB) among Indian consumers. The data were collected from 514 respondents, using purposive and snowball sampling. Using IBM SPSS 23.0 software, we employed exploratory factor analysis, a homogeneity test, Pearson's correlation, and multiple regression for a multicollinearity test for data analysis. The results revealed that EK, EC, and GA are positively related and strongly influence eco-friendly purchasing behavior. Moreover, EK and EC are the strongest determinants of PB for eco-friendly products. This research will help green marketers to develop new green strategies to increase sales volumes and build relationships with target green customers.

Keywords: environment knowledge; environment concern; green attitude; perceived behavior; eco-sustainable products

1. Introduction

In recent decades, society has faced difficult challenges with regards to environmental concerns and protection. These concerns include global warming and depletion of natural resources that directly or indirectly impact customer decisions about buying a product. Human ambition and a wish to make full efforts culminated in the destruction of the essential systems that sustain life: air, water and land. Promoting of green sustainability paved the way for ecological consequences such as depletion of ozone, loss of biodiversity, global warming, deforestation and erosion to be identified. Green promotion is the marketing of goods that are intended to incorporate a broader variety of environmental practices, such as alteration of the production process, materials and packaging in order to make them safe, as well as the development of a new way of advertising [1]. In India, there are 527,700 deaths per year from air contamination, and 21% of transmittable diseases spread due to water pollution, as reported by the WHO [2]; 69% of people agree that pollution and environmental problems have impacted their everyday lives [3], which supports suggestions that consumers are gradually choosing products based on their effects on the environment [4]. Companies' sustainability policies and eco-marketing initiatives are mainly driven by consumers.

The idea of green consumer behaviour arose as a new form of marketing practice for researchers and marketers in the context of contemporary consumer research [5,6] and includes several studies on environmental behaviour in developing countries. Those

studies acknowledged buying behaviour for eco-friendly products in Asian emerging economies such as India, Japan and China; however, environmental literature and market research are still weak from the Indian perspective [6,7].

India is seen as the second fastest-growing emerging economy. Indian consumers are increasingly aware of the advantages of sustainable practices and environmental behavior that characterize the rising young population and their education level; however, although there is market understanding of eco-sustainable goods and their environmentally proactive behavior, there is no demand for such products as predicted. Given this subject's discussion, it is clear that a lack of literature has shown that ecological concern, attitude towards eco-sustainable products, consumer perceived behavior, and environment knowledge predict general purchasing behavior of green products. As well as this, we are aware, explicitly and indirectly via the attitude to green products in the Indian context, of a metric of purchasing behavior to eco-sustainable goods. Two questions have been addressed: Q1: what triggers majorly impact on consumers' purchase of eco-sustainable products, and Q2: what kind of interrelationship (positive or negative) exists between EK, EC, GA, PB, and GPB? This empirical study, therefore, aims at remedying the investigation lag by operationalizing and validating the relationship between environmental knowledge (EC), environmental considerations (EC), perceived behavior (PB), green product behavior (AGP), and eco-sustainable purchasing behavior (GPB). This study will help deepen understanding of consumer green purchase behavior and build new strategies to reach the green consumer in India.

In India, consumer awareness has grown in the fields of eco-sustainable practices and consumption of eco-friendly products, generating new opportunities for green behaviour study [7–12]. Recent surveys have shown the ability of Indian consumers to purchase eco sustainable products. Such innovations created research curiosity in green advertising, green marketing and green consumer behaviour in India. Hence, this empirical research attempts to resolve the research gap by operationalising and validating what triggers consumers to purchase eco-sustainable products and the interrelationship among environment concern, environmental knowledge, perceived behaviour, green attitude and green buying behaviour of Indian consumers. This research study intendeds to help marketers establish a new approach for increased sales of their goods and services.

Environmental knowledge (EK)

There is inadequate environmental knowledge for many customers to behave responsibly in relation to the environment [13]. EK applies customer knowledge of the environmental effects of product use [14], which reveals how the product is produced in an eco-friendly manner [15]. This includes the values, reality and associations with key eco-systems, such as the environmental concern and environmental knowledge of individuals, which contributes to sustainable growth [16]. Consumers EK, EC and their worries regarding environmental issues have an impact on their desire to purchase eco-friendly goods, vehicles and applications [17–19]. EK had an impact on environmental problems and was linked to EA and PB. Exact data on environmental problems should make individuals more informed [20]. Due to high awareness of eco-sustainable goods, customers had strong and positive knowledge of green marketing and eco-sustainable products [21,22]. Previous studies revealed that EK was a significant contributor to consumers' buying intent and had a positive association with EA [23,24] and GPB [22]. EK is increasing in Indian consumers [25], and a higher degree of EK leads to better ecological performance and has a good effect on GPB [22,26]. EK and EC were the strongest determinants of GPB; EC was a mediating function between EK and GPB [27]. With adequate knowledge of the environment, the ability to monitor people's PB improved [11,28]. Therefore, the suggested hypotheses were:

Hypothesis 1A (H1A). *EK has a positive relationship with consumer EC.*

Hypothesis 1B (H1B). *EK has a positive relationship with consumer GA.*

Hypothesis 1C (H1C). *EK has a positive relationship with consumer PB.*

Hypothesis 1D (H1D). *EK has a positive relationship with consumer GPB.*

Environmental Concern (EC)

EC refers to the public's awareness, capability and engagement in environmental issues [29]. A green purchaser is a person who keeps away from any product that can damage any ecological aspect. Customers with EC would increase both intention and the purchasing behaviour [30], and thus individual EC is a great incentive to buy. Likewise, EC had a strong impact on the design of green packaged items, and increased individual EC led consumers to buy eco-friendly goods, applications and vehicles to benefit the environment [6,8,10,17–19,22,31–34]. There was a strong correlation between EC and GPB [22,24]. Consumer interest, social values and environmental values had a positive effect on consumer preference for green products [35] and EC had a positive significant impact on EA and GPI [7]. EC and PB had a direct and indirect impact on GPB via the mediating role of GA [27,36]. EC increase will reduce the sense of trouble. Consequently, EC affects the behaviour of friends, peer groups and family who support or oppose GPB [8,37]. Therefore, the suggested hypotheses were:

Hypothesis 2A (H2A). *EC has a positive relationship with consumer GA.*

Hypothesis 2B (H2B). *EC has a positive relationship with Consumer PB.*

Hypothesis 2C (H2C). *EC has a positive relationship with Consumer GPB.*

Green Attitude (GA)

Attitude refers to the psychological habits of a single individual by assessing a certain degree of benefit or disadvantage [38]. EA was a pro-environmental deciding factor [39]. Consumers who had EA felt like they were a part of the world, and previous studies have shown that positive EA was a major significant variable [40] that affected GPB directly [22,41,42]. However, the study of Uddin, S.F., and Khan, M.N. [40] reported that the GA of the Indian consumer had an indirect impact on GPB. GA had a positive relationship with EC [43], apparel buying behaviour [44] and GPB [42]. EA is a major variable that affects GPB, based on reviews of the literature. Therefore, the suggested hypotheses were:

Hypothesis 3A (H3A). *GA has a positive relationship with consumer PB.*

Hypothesis 3B (H3B). *GA has a positive relationship with consumer GPB.*

Perceived Behaviour (PB) and Green purchasing Behaviour (GPB)

PB is defined as an easy- or difficult-to-execute specific behavior [45]. A specific behaviour happens if a person is motivated and capable of performing instead of simply having one or no reasons [46]. According to the TPB model, the formation of prior intention is critical for the creation of perceived behavioural control. Perceived allowances are perceptive evidence that customers have or use while purchasing goods. Olsen [47] noted that significant PB variables, such as convenience and efficiency, affect the purchasing of food by consumers. Many studies have shown that PB had the best human predictor and a positive connection to intent to buy, such as organic products/foods [48] and green hotels [28,49–52]. The role of PB is to assess the purchasing intention and behaviour of customers towards green purchases [8,42,53,54].

Consumer behavior is the study of people and organizations to determine consumers' experiences of buying and utilising goods and services to their satisfaction, which helps to predict and plan future products and services to offer. In recent years, it raised the number of customers who were willing to purchase green items. GPB was calculated by certain

variables of ecological concern, such as Environmental attitude [40,55], environmental knowledge [56], personality characteristics of consumers [57], eco-sustainable products, eco-sustainable marketing approaches and ecological concerns [55,58]. These were investigated as factors affecting consumers' GPB [59–61]. In addition to driving factors such as moral obligation, ecological problems, awareness, social impacts and customer preferences, green buying behaviour has been motivated [42,62]. Therefore, the suggested hypothesis was:

Hypothesis 4A (H4A). *PB has a positive relationship with consumer GPB.*

2. Methods

The present study was conducted to understand what triggers the consumer to purchase eco-friendly products and to study the interrelationship among the EK, EC, GA and PB. The survey population was Indian green buyers. The researcher prepared a structured questionnaire and used an online survey method with the aid of e-mails (39.1%; $n = 201$), survey method (31%; $n = 159$), interview method (20.3%; $n = 105$), and telephone survey methods (9.6%; $n = 49$) administered to a purposive and convenience sample of 514 Indian respondents to evaluate the hypothesized relationship in this study. For the purpose of data collection, over 697 questionnaires were circulated, 514 (73%) of which were considered for final research analysis. As per total population, the sample ($n = 514$; 73%) was 56.6% ($n = 291$) male and 43.4% ($n = 223$) female, and the majority of respondents (41.6% ($n = 214$)) were aged between 21–30 years. Likewise, 22.2% ($n = 114$) of them were aged between 31–40 years, 19.1% ($n = 98$) of them were 41–50 years, 12.6% ($n = 65$) of them were aged below 20 years and 4.5% ($n = 23$) of them were aged 51 and above. Along these lines, 32.2% ($n = 166$) had a degree, 29.6% ($n = 152$) were post-graduates (PG) and 12.1% ($n = 62$) were above PG; 39.5% ($n = 203$) were private employees, 32.3% (166) were government employees, and 17.9% ($n = 92$) had other occupations. The majority of the respondents reported a monthly income; 35.0% ($n = 180$) earned 25,001–35,000 a month, 29.4% ($n = 151$) earned 35,001–45,000 a month, and 17.3% ($n = 89$) earned 45,001 and above. Of the respondents, 383 (74%) of the total sample replied to the statement ($n = 514$), and 89 (23%) of the respondents had purchased an electronic application. As a result, 79 (20%) of them had purchased IT equipment and 68 (17%) had purchased recyclable paper products.

Initially, a questionnaire was evaluated by a pilot study of 55 PG students and research scholars, and after a pre-test, the questionnaire was finalized with few changes to reduce the complexity of the sample population. There are two major parts of the study questionnaire. The first part had five dimensions with respect to the demographic profile of respondents; and second part had 19 dimensions, consisting of five variables, such as EA, EK, EC, PB and GPB. Four dimensions were used to assess the EK of the respondent with respect to eco-friendly goods, followed by four dimensions of the EC to quantify the environmental concerns of the respondent; four dimensions were measured for the GA of consumers, three dimensions for the PB, and four dimensions for the GPB. Each variable consists of four dimensions, which help to analyse the perception of respondents towards the purchase of eco-friendly products (see Table 1). To measure the respondent's perception level, the researcher used a 5point Likert scale ranging as follows: strongly disagree (5), disagree (4), neutral (4), agree (2) and strongly agree (1).

Table 1. Scale constructs and Sources.

S.No	Variables	Items	Sources
1	Environmental Knowledge (EK)	4	[22,24]
2	Environmental Concern (EC)	4	[22,37]
3	Green Attitude (GA)	4	[22,42]
4	Perceived behavioural (PB)	3	[6,22,42,63]
5	Green Purchasing Behaviour (GPB)	4	[22,42,63]

Research data analysed with descriptive analysis, exploratory factor analysis (EFA), a homogeneity test, and Pearson correlation, multiple regressions with autocorrelation and variance inflation factor (VIF) to calculate multi-collinearity, with the help of the SPSS Version 23.0.

3. Results and Discussions

The Cronbach Alpha test was conducted to track the internal consistency of the component in the sample and determine the reliability. When alpha levels are more than 0.7 it is appropriate, but 0.8 and above are favoured. The results of the reliability, mean and standard deviation of the research were as follows: reliability of EK, EC, EA, PB and GPB were 0.773, 0.780, 0.847, 0.796 and 0.835; along these lines, the mean values of the five variables were 3.9368, 3.7763, 3.5175, 3.6621 and 3.6031; and the standard deviation values were 0.77021, 0.81338, 0.93160, 0.86329 and 0.80557 for the five study variables (see Table 2).

Table 2. Results of reliability and validity.

Variables	DC	Mean	Std.D	CA(>0.7)
EK	5point LK	3.9368	0.77021	0.773
EC	5point LK	3.7763	0.81338	0.780
GA	5point LK	3.5175	0.93160	0.847
PB	5point LK	3.6621	0.86329	0.796
GPB	5point LK	3.6031	0.80557	0.835

LK: Likert scale; DC; Descriptive of scale; and CA: cronbach alpha.

The calculation of the KMO sample is measured so the adequacy of the factor analysis can be studied. Large (0.5–1.0) significance makes the study of the factor acceptable. The KMO value (0.877) was more than 0.05, and Bartlett's test value (X^2 = 3938.239; DF = 171 and $p < 0.001$) was statistically significant, so the factor analysis was useful (See Table 3). The sphericity check by Bartlett shows the strength of the interaction between variables. The degree of significance measured was 0.000. The strength of the relation between variables was high. Therefore, the data were reasonable for analysing the element.

Table 3. Results of KMO and Bartlett's.

KMO measure of sampling adequacy	0.877
Bartlett's Test of sphericity	
Approx. Chi-square	3938.239
Df	171
Sig.	0.000

The EFA was executed for factor extraction, and it was clear that the five components account for 65% of the variance (Table 4). The varimax pivot was monitored through 16 items relating to two specific variables, namely music in advertising and consumer behaviour. All item values were greater than 0.50 and were appropriate. The total variance described by each variable was over 0.5; there was significant variance between all the variables. The researchers retained components with more than one own value using principal component analysis (PCA) (see Table 5).

Table 4. Variance explained.

Components	Rotation Sum of Squared Loading		
	Total	% of Variance	Cumulative %
1	2.848	14.991	14.991
2	2.767	14.566	29.557
3	2.437	12.824	42.381
4	2.345	12.343	54.724
5	1.993	10.487	65.212

Table 5. Rotated Component matrix.

Dimensions	1	2	3	4	5
Environmental knowledge (EK)					
Green items are the preservation of the ecosystem			0.703		
Green item is bio-degradable			0.787		
Green item is Recyclable			0.666		
Green item is Eco friendly			0.594		
Environmental Concern (EC)					
Green items help build a sustainable environment				0.626	
It is my responsibility to protect the environment.				0.622	
Green items minimize waste and recycle it.				0.764	
The use of green goods makes you feel happy.				0.757	
Green Attitude (GA)					
Green goods use less agro-chemical.	0.814				
Green items always come with eco-packaging.	0.803				
Eco-branding and labelling are Green items.	0.815				
Green items are safer and healthier	0.741				
Perceived behaviour (PB)					
I hope I'll purchase green products					0.780
I preserve the environment by purchasing green products.					0.751
I have the time, the resources and the willingness to buy green goods.					0.812
Green Purchase behaviour (GPB)					
I've frequently purchased green goods		0.750			
I buy green items even though the cost is high.		0.854			
I've got a green habit to buy my everyday needs items.		0.841			
I've had a green buying conduct for the previous six months.		0.555			

The homogeneity test was conducted to test the assumption that the variance was homogeneous. Levene's test used a high priority level to determine if the variance was homogeneous. Referring to H1A, H1B, H1C, and H1D stated that EK was positively associated with EC, GA, PB, and GPB. The F-values and significance values for the Levene's test were $F_{(15, 498)} = 2.883$, $p = 0.000$ (H1A); 1.918, $p = 0.020$ (H1B); 2.346, $p = 0.003$ (H1C) and 8.181, $p = 0.000$ (H1D). This finding suggests that the significance values were less than 0.05 and 0.001; thus, the findings rejected the null hypothesis, and the assumption of variance homogeneity was not met due to a large difference between the two variance groups. Concerning the hypotheses, H2A, H2B, and H2C revealed that EC was statistically significant and positively associated with GA, PB, and GPB, and results stated that F-values and significance values for the Levene's test were $F_{(14, 498)} = 2.284$, $p = 0.005$ (H2A); 4.228, $p = 0.000$ (H2B) and 12.825, $p = 0.020$ (H2C).

Hence, the results illustrated that significance values were less than 0.05 and 0.001, and we concluded that the null hypothesis was rejected. Similarly, hypotheses H3A and H3B stated that GA was the main factor and had a significant positive association with PB and GPB, and the results showed that the F values and significance value for the Levene's test were $F_{(16, 498)} = 4.337$ (H3A) and 11.958 (H3B). This suggests that the significance values were less than 0.001. Thus, the null hypothesis has been rejected. Concerning the final hypothesis, H4A reported that PB had a positive correlation with GPB, demonstrated by the F-value and the significance value for the Levene's test, which were $F_{(11, 501)} = 7.424$ (H4A). These results illustrated that the significance value was less than 0.001 and conclude that the null hypothesis has been rejected and that the assumption of variance homogeneity has not been met due to significant disparity between the two variance groups (See Table 6).

Table 6. Results of the homogeneity of variance test.

	Hypothesis Statement	Levene Statistic	df1;df2	Sig.
H1A	EK has no positively associated with EC	2.883	15;498	0.000
H1B	EK has no positively associated with GA	1.918	15;498	0.020
H1C	EK has no positively associated with green PB	2.346	15;498	0.003
H1D	EK has no positively associated with GPB	8.181	15;498	0.000
H2A	EC has no positively associated with GA	2.284	14;498	0.005
H2B	EC has no positively associated with green PB	4.228	14;498	0.000
H2C	EC has no positively associated GPB	12.825	14;498	0.000
H3A	GA has no positively associated with green PB	4.337	16;497	0.000
H3B	GA has no positively associated with GPB	11.958	16;497	0.000
H4A	PB has no positively associated with GPB	7.424	11;501	0.000

Pearson's correlation analysis is used to calculate the consistency of the interrelationship between selected variables, such as EK, EC, GA, PB and GPB; the study was accurate, with a coefficient varying from 0.236 to 0.560 for variables. The results of the Pearson correlation ($n = 514$) between the five selected variables are shown. The correlation coefficient statistics represent the degree of the relationship between the constructs that cause the purchase of eco-sustainable products. The results show that EK had a positive correlation with EC ($r = 0.560$ **; $p < 0.01$) and a positive relationship with GPB ($r = 0.537$ **; $p < 0.01$) at a 1% significance level, and the findings were confirmed by Jaiswal and Kant [6], Heo and Muralidharan [27], and Lavuri and Susandy [22]. EC is the main factor and had a moderate positive influence on GA ($r = 0.468$ **; $p < 0.01$) and a significant impact on the GPB of consumers ($r = 0.451$ **; $p < 0.01$) at a 1% significance level, and the results were supported by the study of Jaiswal and Kant [6], Zou and Chan [34], and Lavuri and Susandy [22]. GA is the main indicator [40] and had a significant impact on GPB ($r = 0.329$ **; $p < 0.01$) at a 1% significant level, which was confirmed by these findings [22,41]. PB had a good relationship with GPB ($r = 0.309$**; $p < 0.01$), confirmed by Yadav and Pathak [53], Paul et al. [8], and Lavuri and Susandy [22] (see Table 7).

Table 7. Pearson's correlation constructs ($n = 514$).

	EK	EC	GA	PB	GPB
EK	1	0.560 ** S	0.333 ** S	0.255 ** S	0.537 ** S
EC		1	0.468 ** S	0.272 ** S	0.451 ** S
GA			1	0.236 ** S	0.329 ** S
PB				1	0.309 ** S
GPB					1

Note: **: $p < 0.01$(2 tailed); S: significant; ns: not significant.

The findings indicate statistically significant F values in four models at 91.100 (M-1), 82.356 (M-2), 37.482 (M-3) and 56.572 (M-4), and the independent variables account for 41.7% of the variance in model 1, followed by 32.6% of the variance caused by the predictor in model 2, 12.8% of variance in model 3, and 9.9% in model 4. The Durbin-Watson values were 1.895 (M-1), 1.700 (M-2), 1.650 (M-3), and 1.983 (M-4), which indicates a positive auto-correlation i.e., values are below 2 (see Table 8).

Table 8. Model summary results.

Model	R^2	Adj.R^2	Durbin-Watson	F
1	0.417	0.413	1.895	91.100
2	0.326	0.322	1.700	82.356
3	0.128	0.125	1.650	37.482
4	0.099	0.098	1.910	56.572

This section shows the results of multiple regressions and multi-collinearity. Four models were designed to assess the interrelationship among the study variables, such as EK, EC, GA, PB and GPB. Model 1 indicates that EK had significant association with EC (β = 0.358, $p \leq 0.001$) and had influence on GPB (β = 0.313, $p \leq 0.001$). Similarly, model 2 reveals that the EC had a strong association and influence on GA (β = 0.30, $p \leq 0.001$), as well as an impact on GPB consumers (β = 0.297, $p \leq 0.001$) and also on PB (β = 0.090, $p \leq 0.001$) for the estimated regression model 3. It is evident that GA emerged as the most important variable and had a significant impact on GPB (β = 0.312, $p \leq 0.001$) and PB (β = 0.160, $p \leq 0.001$). PB was statistically significant and had a major impact on GPB (β = 0.300, $p \leq 0.001$). The findings show that EK, EC, GA, PB had strong interrelation and an impact on GPB towards eco-friendly products. The researchers measured the Variation Inflation Factor (VIF) to analyse multi-collinearity in this research. Collinearity statistics for model 1 show that the independent VIF variables values were 1.484, 1.322, 1.144 and 1.339, and the tolerance values were 0.674, 0.756, 0.874 and 0.747. This means that the VIF values obtained were in between 1 and 10, i.e., less than 5, and the tolerance values were greater than 0.2. It also means that there is no collinearity problem at all. Similarly, collinearity statistics for model 2 show that the predictors' VIF values were 0.872, 0.884 and 0.835, and along these lines, tolerance values were 1.147, 1.131 and 1.197. This reveals that there was no problem with collinearity. VIF values of the model 3 predictors were 1.106 and 1.106, and the tolerance values were 0.905 and 0.905; and VIF value of model 4 was 1.000, and the tolerance value was 1.000. This concludes that there was no collinearity problem (See Table 9).

Table 9. Summary of multiple regressions.

H	IV	DP	Standardized Coefficient		Standardized Coefficient	T	Sig.	Collinearity Statistics	
			B	Std. Error	Beta			Tolerance	VIP
H1A	EC		0.358	0.039	0.378	9.172	0.000	0.674	1.484
H1B	GA	EK	0.029	0.032	0.035	0.893	0.003	0.756	1.322
H1C	PB		0.034	0.032	0.038	1.045	0.006	0.874	1.144
H1D	GPB		0.313	0.036	0.343	8.768	0.000	0.747	1.339
H2A	GA		0.300	0.034	0.344	8.842	0.000	0.872	1.147
H2B	PB	EC	0.090	0.036	0.095	2.465	0.014	0.884	1.131
H2C	GPB		0.297	0.038	0.309	7.765	0.000	0.835	1.197
H3A	PB	GA	0.160	0.047	0.148	3.411	0.001	0.905	1.106
H3B	GPB		0.312	0.048	0.283	6.514	0.000	0.905	1.106
H4A	GPB	PB	0.300	0.040	0.315	7.521	0.000	1.000	1.000

H: hypothesis; DP: dependent variable; IV: independent variable.

In the current research, the researcher tested the residual normality with a normal P-P plot. The plot revealed that the dots usually follow a diagonal line without significant deviations. This means that the residues were normally distributed.

4. Conclusions, Implications, Limitations, and Future Directions

In India, environmental issues are rising rapidly, eco-consciousness has become a new symbol of business success, and people from every area of life are interested in it. This research explores what triggers the purchase of eco-sustainable goods and the interrelationship between study variables. Consumers were triggered by five primary variables, such as EK, EC, GA, PB and GPB, with 19 dimensions influencing consumer purchasing behavior in India. Accordingly, the results show that a high level of EK results in improved environmental efficiency performance. Individual EK had a significant impact on environmental problems and was linked to EC, GA and GPB. The findings show that it had a strong impact on EC [22,27] and GA [6]. This means that there was a positive interrelationship between the EK, GA and GPB variables. People's environmental

concern affects their support and ability to buy environmentally sustainable products and vehicles [17–19]. The research results showed that EC had a good relationship with GA, and GPB and a strong impact on EA [6,22] and GPB [22,31–34]. This means strong EC helps to boost GA for green procurement. Thus, the growth of EC on environmental issues among consumers was reflected in their efforts to resolve ecological concerns through eco-sustainable procurement. GA is a key factor for individuals and had a major effect on the purchasing of environmentally friendly goods [22,41], and PB had a measurable impact on GPB [8,22,53]. The research concluded that key factors such as EK, EC, GA and PB had a strong interrelationship among them [27], and these variables had a significant impact on GPB. These findings support the studies of Paul et al. [8] and Yadav and Pathak [53]. The research focused on what factors trigger the purchasing of eco-friendly products and the interrelationship among the selected variables. In this sense, it will enable policymakers and managers to establish and enforce policies to encourage environmental consciousness, enhance consumer buying behaviour, and allow academic researchers to understand the nature of this trend. This study allows them to set up a modern and innovative consumer acquisition model for eco-sustainable goods.

Research implications: The current research has major implications for corporate administrators, who are in charge of promoting eco-sustainable products. The research results improve understanding Indian consumer behaviour and the purchase of eco-sustainable products. Since PB was closely connected with the GPB, marketers must attempt to enhance their understanding of all variables selected in the model proposed. Market segmentation based on EC was found to have a major impact on GA and PB in the expected behaviour model, and this may help marketers to generate a strong GPB response. GPB was significantly influenced by EK, EC, GA and PB, and these variables had a strong interrelationship among them. This influence can improve the GA of the consumer towards GPB.

Likewise, if green products are easily accessible to customers, it can boost customer interest and encourage green demand. As a result, EK, EC, GA and PB have substantially correlated impacts on GPB. In this way, marketers may consider expanding green options by enhancing research and development transparency and opening up new distribution networks [8] to improve the accessibility of green goods. Thus, the problem of purchasing sustainable goods is reduced, and consumer perception control is improved. Policymakers need to form societal attitudes about green goods being useful. Campaigns and ads showing worsening environmental conditions, which help to enhance awareness of environmental concerns, may contribute to green consumption.

This will cause profit in the long run by making eco-sustainable product consumption a socially acceptable norm and behaviour that affects the intentions, attitudes and behaviours of individuals towards green goods. As a part of CSR, organizations are entitled to take part in these activities to benefit dually from improved external reputation and increased green product sales. The business will have a business strategy that incorporates green sustainability, which will lead to the sustainable competitiveness of organizations. Along these lines, manufacturers can stay competitive through strategic incorporation of environmental issues; partnering with environmental technologies suppliers, consumers and the surrounding area; and investing in sustainable technology skills [64]. Finally, this research will help policymakers develop policies and strategies to promote the adoption of GPUs, which help to ensure environmental protection through a better understanding of South Indian shoppers' green purchasing behaviour.

Limitation and future directions: The geographical area of this research is limited to Indian consumers. Consequently, the findings and conclusions of the research have their limitations. The research used the information continuum with a purposive and snowball approach that does not necessarily generalize the findings of the analysis. The researchers carefully chose the sample, but the scope for further research exists. The present study focused on what triggers the purchase of eco sustainable items in India. Future studies can be carried out on various social and cultural contexts and the effect of socio-economic factors, psychological factors, altruism and awareness of eco-sustainable goods. Cross-

cultural studies and longitudinal metrics may be useful for a deeper understanding across generations. Whereas the present research focused on consumers in general, future studies could focus on specific generations X, Y and Z, and on the personal characteristics of consumers to design effective marketing strategies to improve products sales. As the research was from India and the results were not generalizable, replicating the study in other countries could add ethnography or cultural dimensions to it. The rural sector has not been recognized in these research studies, and the role of green marketing in rural areas can be addressed. For this research study, the researcher used only five main variables, i.e., EK, EC, GA, PB and GPB, and there is room to integrate other variables, such as subjective norms, perceived risk, and consumer altruism, into the current suggested model, which may help to clarify the complexities of green purchasing.

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