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# Indian voters' attitude and behavior toward a political brand for producing green products: a mediation model

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## Abstract

This study explores the attitude–behavior relationship among voters for political party brands that use a sustainable or green marketing approach. A structural equation modeling is used to analyze data collected from 1771 respondents who are registered Indian voters in this case. A positive attitude toward a political brand is compared to intentions to vote for the same brand. According to the findings, political brands create a more environmentally friendly product in the form of green actions because doing so encourages consumers to think favorably of the political brand, which results in them voting for it. As a result, authors are able to identify a positive attitude–behavior relationship for political brands among voters.

**Keywords** Political party brands, Environment, Attitude–behavior gap, Green marketing, Green product, Green initiatives

## Introduction

Global environmental problems have aggravated, and buying green products has become fashionable. People increasingly wear green [91], eat green [101], use green products and sometimes even vote for environment-friendly political parties [28] whenever possible. The consumption of these environmentally friendly and sustainable products or services has emerged as a solution to various environmental issues. Businesses are interested in this apparent rise in ethical consumption because it provides opportunities to expand into a new market. However, Freestone and McGoldrick [34] feel that business organizations should not be the only ones to grab the opportunity; political party brands

should also keep their fingers on the pulse when such ethical concerns are voiced by consumers (here, voters). Indeed, through strategic policy marketing, parties must continuously strive to meet their target voter markets' emerging wants and needs [7].

As of now, consumers of these green products, or we can say environment-friendly products, are few because, while almost all of us have green attitudes, we do not always act in favor of environmentally friendly consumption [52, 65, 82, 96, 104, 105]. This is commonly referred to as “the attitude–behavior gap” or “words–deeds inconsistency” and was coined by Fishbein and Ajzen [2] in a theory developed by them known as the Theory of Reasoned Action. Why it happens and when it happens is still poorly understood [19]; therefore, researchers have called for more research into this weak relationship to bridge the gap known as the “ethical purchasing gap”.

Also, there is substantial scientific evidence that this gap exists in the political context among voters from different countries on environmental issues, i.e., they have favorable attitudes toward saving the environment

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but do not take necessary actions on a personal level [11, 98]. Bravo and Farjam [17] studied the attitude–behavior gap of citizens in the environmental context for policymakers, as well as the discrepancies between citizens’ self-reported and actual behavior. They demonstrate that despite voters’ commitment to ecological consumerism, voters rarely show environmentally friendly behavior when taking action on personal behalf. This behavior can be described as having a positive attitude toward the environment but exhibiting negative behavior, i.e., not taking sufficient steps to protect the environment.

On the other side, some studies have studied a well-established relationship between the two variables (attitude and behavior) in the category of voters. They generally agree that “greener” voters support “greener” political parties [68]. It implies that those committed to preserving the environment support political parties with more environmentally friendly development objectives. Therefore, we can say that there can be three types of relationships between variables: attitude and behavior. The first one is a positive attitude converting into positive behavior. Second, a positive attitude but still a negative behavior. Third, a negative attitude and a negative behavior. By taking cues from this, the authors of this article investigate the relationship between voters’ attitudes toward a “political brand” engaged in green actions and voters’ behavior in the form of party choice toward the same political brand, which has not been studied yet. This paper aims to add nuance to the literature by adding to the green and political marketing literature. It investigates the impact of the production of green products by political parties on voter attitudes and behavior in the form of “voting” for a political party identified as a “political brand”.

This article is in the Indian context, with examples of mainstream Indian political party brands, such as the Bharatiya Janata Party, Congress and the Aam Aadmi Party, continuously competing with each other on the environmental front. The main reason for choosing mainstream parties is that when studying the effect of environmental attitudes on vote choice in multi-party systems, scholars generally focus on the success of green parties (for instance, [20, 71, 85]). However, mainstream parties should not be excluded from such studies because they are important in articulating governments’ environmental policies [68]. As a result, in this study, we include mainstream or traditional political parties as examples of brands and not green parties. Another reason for not considering green parties is that no green parties exist in India [57]. Election manifestoes of these recent election brands were studied, and their green initiatives were identified as green products.

Firstly, the article briefly overviews the three major environmental crises in India and the policies framed by political brands to tackle the problem. It then provides answers to questions raised in the mind of readers, such as (a) Why have the authors focused this study on Indian political parties and voters? (b) Why has a green initiative been identified as a green product of political brands? After answering these questions, we proceed with the literature section, in which, firstly, the promotion and communication of these green actions through political manifestoes and mass communication media are discussed. Attention then shifts to why studying attitude is essential to predict a consumer’s behavior, here voters. Next, the research methodology is explained before the study results are presented. Finally, the discussion and conclusion section has been described.

### **India’s environmental quality and related environmental initiatives**

River Ganga is among India’s holiest rivers, revered by thousands of Indians. It has socio-cultural and economic importance because it contributes to various economic and livelihood activities for the people who live in the basin [51]. It also has one of the world’s most complex river basins for two reasons. One, due to the large number of people who live near its basin, and second, because of the pressure on its water resources. Over the last few decades, human activities have caused significant changes in the aquatic environments of this river. Because of this increased human civilization and reliance on the river, drinking and other uses of its water have become dangerous [72].

During the Indian general election of 2014, the Bharatiya Janata Party came up with a solution for the above-stated problem by promising the Indian population to clean their holy river, Ganga, if they won [41]. On May 13, 2014, Namami Gange, a flagship program, was launched by the central government led by the BJP, incorporating various components such as municipal sewage treatment, industrial discharge management, enforcing river regulatory zones and wetland restoration. The United Nations (U.N.) also identified this project as one of the top ten world restoration flagships to revitalize the natural world in 2022 (PIB [74]). This example of a green initiative by a political brand applies to the whole country as it was promoted for a national-level election. At the same time, state parties also announced green actions through their manifestoes during the state-level elections. Name of some of these political brands involved in environment-related games are Congress, Aam Aadmi Party, Communist Party of India (Marxist)—CPI(M), Communist Party of India (CPI), Samajwadi Party, All India Trinamool Congress (AITC) and Shiv

Sena. All these brands have presented and discussed environmental problems in their respective election manifestos [41].

Another flagship program of the Bharatiya Janata Party was the “Swachh Bharat Abhiyan”. On October 2, 2014, the Government of India, led by the BJP, launched the “Swachh Bharat Abhiyan” (also known as “The Clean India Campaign”), a massive project worth 62,000 crore Indian Rupees (INR), intending to make India clean by October 2, 2019, on the 150th birthday of Mahatma Gandhi. The project’s goal was to eliminate the unhealthy conditions caused by open defecation and littering. In addition to building toilets, the campaign aimed to raise awareness about the importance of hygiene, and efforts are being made to change people’s attitudes toward public defecation [3].

Now, we proceed with an example of an environmental problem in Delhi and nearby areas. This city is located in one of India’s most polluted industrial regions, the Gurgaon-Delhi-Meerut industrial region [70]. Due to this reason and adjoining states’ stubble burning, Delhi became a “gas chamber” in 2016 [97]. It was listed as one of the world’s most polluted cities [55, 93]. During the same year, to tackle this problem, the state political party took a green initiative, the Aam Aadmi Party. Their flagship program, the Odd–Even rule, was launched to combat air pollution in the national capital and nearby areas. This rule was a driving scheme implemented on a trial basis in Delhi city, requiring vehicles with odd and even registration numbers to run on alternate days beginning January 1, 2016 [93]. This is not the only initiative Aam Aadmi Party took; the other examples are that they have developed the largest network of e-rickshaws in the country—promoting clean last-mile connectivity by giving subsidies of RS 30,000; imposed heavy fines for constructing during peak pollution season; increased green cover by 1100 hectares; introduced an E-vehicle policy; planted three lakh tree samplings [1]. Now, we proceed with a section that answers why the authors have chosen India as a place of study.

### **Why India, its political parties and voters?**

With a population of around 140 crores, India is the world’s largest democracy, surpassing China’s population in 2023 (Hertog [45]). Conducting an election becomes a challenging and colossal task here. It has been claimed that holding general elections in India is equivalent to keeping them in Europe, the USA, Canada and Australia combined. Statistically, the number of voters in India is in the millions. Out of these 140 crores, around 94 crore people (large target market) are registered voters in the country (Ganguli [36]). The number of polling places across the country totals approximately 900,000 (9 lakhs),

and about five million people are needed to manage these polling booths, comprising election officials and an additional two million security personnel. All this comes at a huge cost to the government and the candidate running for election [94]. Also, Pich and Dean [75] have asserted that this field is still growing, making voting behavior significant to be studied from both a theoretical and practical point of view. So, it is essential to learn How? When? Why? and where? Do political consumers make their political purchases? All these reasons made the authors realize the need to study Indian voters’ behavior.

### **Why have green initiatives been taken as green products?**

A party, candidates, public image and electoral programs constitute a political product in the political marketing literature [14]. A political party’s environment-friendly initiative will be termed a product from the respective political brand, which in our case is the Swachh Bharat Abhiyan, the clean Ganga mission and the odd–even rule.

We also know that a “green product” protects the environment without depleting resources or endangering it [4]. So, we can say that environment-friendly initiatives are green products of political parties [106], also making it a reason for writing green products and not green initiatives in this article.

## **Literature review**

### **Impact of the election manifesto and mass media on promoting green products**

#### ***The manifesto***

Party manifestos are considered essential documents by academicians worldwide because they clearly outline a party’s ideology and strategy. During an election season, manifestos outline a political party’s promises that provide a helpful entry into understanding that party’s intentions *ex ante*, upon which voters base their decisions [50]. As a result, these documents are critical tools for understanding the party’s official position on various policy issues, public concerns and the party’s overall long-term agenda for developing a nation if elected to power. As new needs arise, new promises are added to these manifestos of political brands. Studies examining this connection between public preferences and party policies have attracted much attention in the past [79]. The environment has found its place in these mass communication tools. The parties’ priorities have evolved in response to shifting national and international conditions. It was not until the 1980s that manifestos mentioned the environment. Since then, environmental and sustainable issues have gained importance. In earlier days, “urban” issues received little attention because

India was predominately rural. However, as more voters live in urban clusters due to increased urbanization, urban issues such as the environment now receive more attention [100].

An analysis of Indian party manifestos reveals that almost all major political parties in the country, such as Indian National Congress (INC), Bharatiya Janata Party (BJP), Aam Aadmi Party (AAP), Communist Party of India (Marxist)-CPI(M), Communist Party of India (CPI), Samajwadi Party, All India Trinamool Congress (AITC) and Shiv Sena, have mentioned something about safeguarding the environment and have positioned themselves as environment-friendly brands [41, 50, 100].

### **Mass media**

Improvements in communications media have allowed consumer groups to operate simultaneously over international borders, relaying quick and up-to-date information concerning unethical business behavior [19, 34]. Easy availability of information has made the public feel that they can influence the working of the governments and business houses through their actions [69, 84]. Also, media shapes and influences people's attitudes and understanding of environmental issues [73]. As a result, the media has to play an important role in setting the agenda for public concern and also political campaigning [38, 43, 58].

Through mass media communication, media outlets can convey public messages to the government and the government's actions and proposals to the public [102]. When there is a public outcry, governments get to know through press media [40]. The study of media's role in politics has primarily focused on how media influence people's perceptions of the world [59, 61]. Significantly less research has been conducted to investigate the effects of the media on policymaking. The consensus is that the media-policy nexus is anything but straightforward. The majority of scholars also agree that, even though media may not directly influence policy decisions of the governments, they may still impact how public issues are perceived [27]. Press media has a strong influence on the voting behavior of the citizens as media dependency has increased "in times of change, conflict, uncertainty, and insecurity" [62], Widaya Mohamed [103].

### **Attitude and behavior (vote) for a "greener" political brand**

The relationship between attitudes and behavior can be thought of as a tool that aids both practitioners and researchers in forecasting consumer behavior [107]. An attitude can be defined as a persistent set of beliefs about an object that predisposes people to act in a certain way toward the thing [5]. As attitudes significantly impact

a person's decision-making and behavior [54], the first step toward increasing sustainability, specifically encouraging positive green product purchase behavior, can be seen as having a positive attitude toward green products [78]. A significant relationship exists between people's attitudes toward the environment and their corresponding behaviors [46]. Numerous literary works demonstrate this connection between environmental attitudes and action. For the USA, for instance, Kahn [49] and Baldassare and Katz [8] demonstrated how environmental concern affects both consumer decisions (e.g., buying hybrid cars, taking the bus to work and using less gasoline) and environmental practices (decreasing their driving, recycling and conserving water). Vaske and Donnelly [98] mapped voting intentions for wildlife preservation in Colorado, USA, to show how value orientations were fully mediated by attitudes affecting behavioral intentions. According to Butler and Francis's [18] study, environmental attitudes can even be used to explain why women choose certain types of clothing. Numerous additional studies show a strong connection between environmental attitudes and various types of environmental practices in different countries and for different populations [15, 21, 29, 47, 60, 86]. Even voting for parties that offer solutions to environmental problems is frequently viewed as a form of environmental action. Numerous academicians have also noted that voter behavior in states like California, Colorado, New Jersey, Belgium, New Zealand, Australia and Germany may be significantly influenced by voters' environmental attitudes and concerns [16, 33, 37, 39, 80, 81].

Voters appear to respond to how governments handle relief efforts after natural disasters. After landslides in Colombia [35], Hurricane Sandy in the USA [99] and the 2002 Elbe flooding in Germany [10], voters rewarded the political parties for their relief work. Even though the ruling party performed well in local elections, academics occasionally could not find evidence that wildfires in Spain affected the party's national vote share [77]. In other cases, citizens respond to natural disasters by criticizing political parties in government for their lack of helpful behavior. Examples of Indian citizens going against the governments are also many, such as the Chipko Andolan of 1973 [32], the Bengal peasant revolt of 1859–1863 [13] and the Narmada Bachao Andolan [63]. These developments suggest that voters choose political parties that meet their expectations for leadership during dramatic events [6]. The electoral choice or vote has been highlighted in this study as an illustration of environmentally conscious behavior, or, as we might say, behavior that is supportive of a greener political brand.

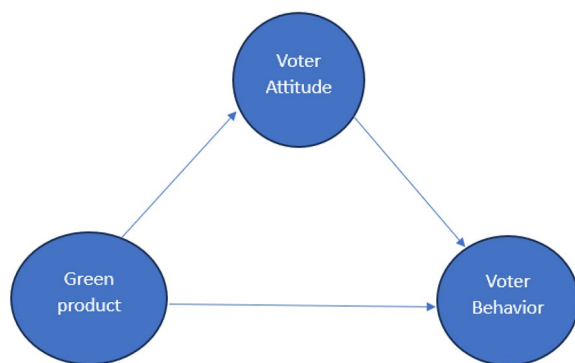
## Methodology

### Research design (framework with hypothesis)

The development of a research framework and a thorough analysis of pertinent literature marked the beginning of the study. Next, in order to evaluate the relationships between the independent and dependent variables, research hypotheses were developed. This study’s empirical research is based on quantitative data that were analyzed with SPSS and Smart PLS software.

The study synthesized the literature on sustainability practices by political brands and the relationship between the attitude and behavior of consumers to better influence voters’ behavior toward political party brands. Very little is known about voters’ attitudes and behaviors toward a political brand for the green actions they take, even though numerous studies have been conducted to explore the mechanism of the attitude–behavior link. The research framework presented here was inspired by the work of Papp [68], who looked into the relationship between environmental attitudes and the “greenness” of party preference, with the effect of exposure to environmental problems being moderated. The proposed framework is shown in Fig. 1.

Environmental harm may be lessened due to political party brands’ green initiatives or promises. In doing so, a political brand may develop in voters a perception of a “green” brand, which encourages consumers to have a positive attitude toward the brand and may lead to positive behavior, operationalized in this case as voter choice. We provide a conceptual framework that hypothesizes



**Fig. 1** Proposed framework. Source: The authors

that the government’s sustainability programs establish a positive attitude (for the brand), leading to favorable behavior (vote) from the voter. The positive attitude of consumers serves as a bridge between government green actions and favorable behavior (in this study, voter choice). This study aims to expose governments or political brands to customers’ reactions, which shape voter choice. Therefore, three variables were used in this study: green product, voter attitude and voter behavior. The definitions of the variables are given in Table 1. Also, the hypotheses developed for the study are:

*H1* The government’s green initiatives (green products) foster a favorable attitude toward that party.

*H2* Voters who have a positive attitude toward a political party’s brand for their environment-friendly policies prefer to support that party by giving them a vote.

*H3* The government’s green actions (green products) lead to positive behavior from the voters.

*H4* A positive attitude mediates the relationship between the government’s green actions (green products) and voter behavior (voting).

### Development and measurement of the constructs

Respondents responded to questions such as “In my opinion as a voter, environment-friendly policies save the environment” on a scale of 1–5 (where 1=“strongly disagree”, and 5=“strongly agree”). This study adapted Suhaily and Darmoyo’s [95] work to develop questions for the variable green product. Their study was used for three items, renamed GP\_1, GP\_2 and GP\_3. Six items from Chen et al.’s [24] work were used for the voter attitude variable, renamed as VA\_1, VA\_2, VA\_3, VA\_4, VA\_5 and VA\_6, and three items from Chen et al. [25] and one from Chan’s (1999) study [22], respectively, were adapted to study the voter behavior variable; the items were renamed as VB\_1, VB\_2, VB\_3 and VB\_4. A summary of the sources used to develop the construct is provided in Table 2. All the questions were slightly modified to fit the goal of the study.

**Table 1** Variables used for study

Variable	Definition
Green product	Green products are those environment-related promises made to the public by political brands that will reduce environmental harm [106]
Voter attitude	Voter attitude is a persistent set of beliefs about a political brand that influence voters to act in a particular way toward it [31]
Voter behavior	Voter behavior can be defined as how people usually cast their ballots in public elections [44]

**Table 2** Construct source from prior literature

Construct	Sources	Number of items
Green product	Suhaily and Darmoyo [95]	3
Voter attitude	Chen et al. [24]	6
Voter behavior	Chen et al. [25]	3
	Chan [23]	1

### Study sample characteristics

Registered Indian voters are the population of interest for this study. The respondent's gender, age, annual earnings and level of education were among the demographics used in the study. Male respondents made up 53% of the sample as a whole, while female respondents made up 47%. The population participating in this study is evenly distributed by gender, with a mere 6% difference. 35% of the respondents are between 18 and 25 years old. 24% are in the 26 and 35 years of age group. 25% are between 36 and 50 years of age, and 16% are above 50 years of age.

Of the sample, only 12% of respondents reported earning between zero and three lakhs per year, while 24% reported earning between three and six lakhs per year. 36% of respondents said they make between six and nine lakhs yearly, and 28% said they make more than nine lakhs.

Lastly, most respondents classified themselves as senior secondary school pass-outs, comprising 57% of the sample. People with graduation and above degree are 32%, people who studied till secondary level are 8%, and the rest 3% have no education.

### Data collection strategy, population, sampling and sample size

The study was conducted from January 15, 2023, to August 27, 2023. A questionnaire was created to carry out the study. Data were collected through online and offline surveys. The survey was divided into two sections, the first of which requests demographic data (name, age, marital status and the name of the party they voted for in the last election). Thirteen questions made up the final section, which measured the variables. Data were gathered from respondents using Google Forms and by circulating hard copies of the questionnaire (in Hindi and English). The need to translate the questions from English to Hindi arose due to the fact that English is not a first language in India, making the questionnaire more accessible to respondents. Respondents in this study are registered voters of the country; approached citizens were asked prior if they were registered voters or not; if they were, they could proceed with filling out the questionnaire, and if not, they could decline to fill out the

survey. For Google Forms, the snowball sampling method was used to collect the data (forwarded on personal and group contacts). In total, 184 wholly filled Google forms were returned, and the convenience sampling method was used to get the questionnaire filled out physically. There were many reasons for using this sampling technique, such as the non-availability of contact numbers of registered voters in the country on the election commission website. Although physical addresses are available, reaching each respondent physically would have cost a lot, limited time to conduct research without funds and a large population of India living in rural areas made random selection impossible. Respondents were unknown to the researcher and were approached when visiting public places such as Delhi's marketplaces, outside of Delhi's shopping markets, outside universities, and also when using public transport in NCR. A total of 1587 complete responses were obtained from the physical distribution of the questionnaire. Therefore, the total sample size was 1771 respondents.

There are many reasons for going with a small sample size of 1771 from a population of 140 crore for analysis, including limited funding for a comprehensive study, a short time frame and inadequate connectivity to rural areas. Statistically also, if we calculate the sample size with the help of the formula developed by WG Cochran [26], which is  $n = \frac{z^2 pq}{e^2}$ ; where  $n$  is the sample size,  $z$  is the chosen critical value corresponding to the desired confidence level,  $p$  denotes the estimated proportion of a trait within the population,  $q = 1 - p$ , and  $e$  represents the desired level of precision. All these values used were  $p = 0.5$ ,  $q = (1 - 0.5) = 0.5$ ,  $e = 0.05$  and  $z = 1.96$ . So, the sample size comes out to be 385. The minimum number of respondents required was 385; however, data were collected from 1771 respondents, more than four times the required number.

A thorough screening was conducted as part of the data analysis setup. Values that were missing were identified. A few participants did not fully complete the questionnaire and the Google form. Their responses were removed from the entire dataset because they were hard to get back in touch with. Additionally, the questions in the Excel file were renamed GP\_1, GP\_2, GP\_3, VB\_4 and so on for easy analysis. The data were also free of outliers because it was measured using the Likert scale. All potential statistical errors, including multicollinearity, correlation, missing values and common method variance, were checked for in the data.

### Ethical considerations

The investigators ensured ethical standards and formal clearance procedures were followed. Researchers prioritized consent, privacy and voluntary participation.

Participants were fully informed and could leave the survey at any time. No personal identifiers such as names, residential address, phone numbers were not collected, therefore, reducing the risk of data loss or theft.

**Analysis and results**

As noted in the preceding section, all the constructs considered in the questionnaire survey were derived from prior investigations. Analysis was done using two software, namely SPSS 29 and Smart PLS 4. Tables related to descriptive statistics, eigenvalues and total variance explained were derived using SPSS. Whereas output of the measurement model, internal consistency, convergent validity, composite reliability, average variance extracted, Fornell–Larcker criterion, HTMT ratio, VIF values, model fitness and direct and indirect effect relationship were obtained using Smart PLS 4 software. Beginning with the SPSS results, the descriptive statistics of the sample are below.

Table 3 provides descriptive statistics (minimum, maximum, mean and standard deviation). For green products,

**Table 3** Descriptive statistics. *Source:* The authors

N	Minimum	Maximum	Mean	Std. deviation	
GP	1771	2.00	5.00	4.6220	0.58458
VA	1771	1.33	5.00	4.2801	0.77301
VB	1771	1.00	5.00	3.8634	0.93124
CA	1771	1.00	5.00	4.1830	0.65899
Valid N (listwise)	1771				

voter attitude, voter behavior and competitive advantage, respondents gave average scores of 4.6220, 4.2801, 3.8634 and 4.1830, respectively. Each variable’s minimum and maximum values indicate that the data are standard. In the same order, as previously explained, the standard deviation for the data about the variables is 0.58458, 0.77301, 0.93124 and 0.65899.

Table 4 demonstrates the eigenvalues and total variance explained. The extraction method of factor analysis used in this study is principal component analysis. Before extraction, thirteen linear components are identified within the dataset. After extraction and rotation, there are three distinct linear components within the dataset for the eigenvalue > 1. The three factors are extracted, accounting for 71.471% of the total variance. It is suggested that the proportion of the total variance explained by the retained factors should be at least 50% [92]. Therefore, the need to conduct Harman’s single-factor test did not arise. The result shows that 71.471% of the common variance shared by thirteen variables can be accounted for by three factors. This initial solution suggests that the final solution will extract not more than three factors. The first component has explained 45.26% of the total variance with an eigenvalue of 5.88. The second component has explained a 17.658% variance with an eigenvalue of 2.295. The third component has explained an 8.547% variance with an eigenvalue of 1.111.

Further, SmartPls 4 software was used in the study because it has a small sample size and uses latent variables, so PLS-SEM works well. Furthermore, the assumption of data distribution in PLS-SEM is more flexible than in CB-SEM. With SEM, marketers can visually analyze the relationships between relevant variables in order

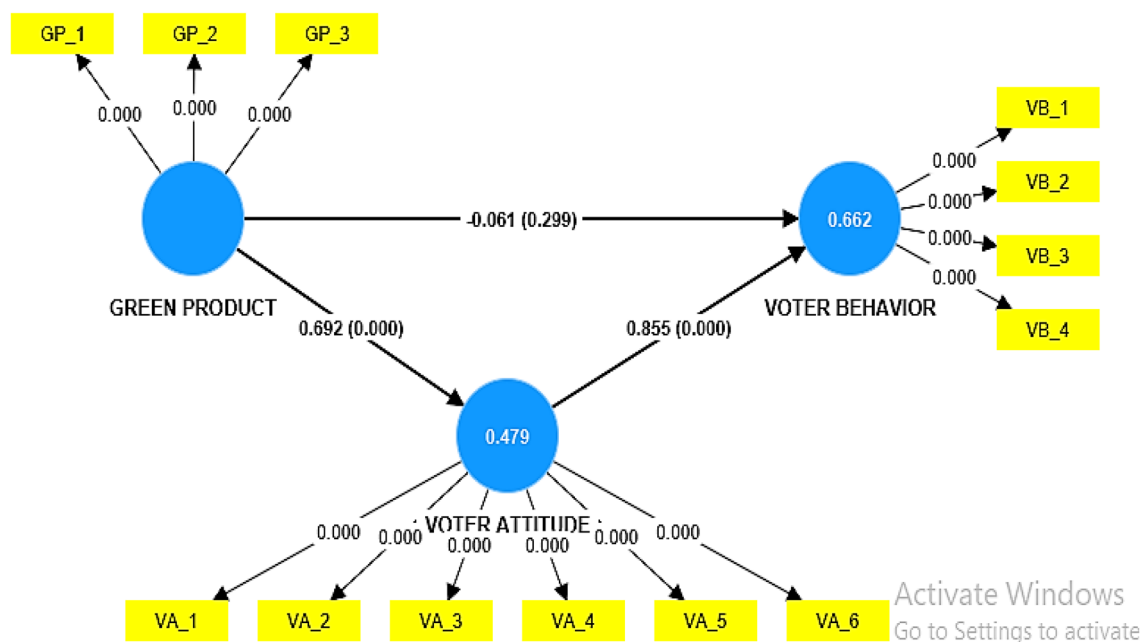
**Table 4** Eigenvalues (E.V) and total variance explained. *Source:* The authors

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	5.885	45.266	45.266	5.885	45.266	45.266	4.134	31.801	31.801
2	2.295	17.658	62.923	2.295	17.658	62.923	2.709	20.840	52.641
3	1.111	8.547	71.471	1.111	8.547	71.471	2.448	18.829	71.471
4	0.737	5.669	77.140						
5	0.599	4.609	81.749						
6	0.471	3.623	85.372						
7	0.418	3.212	88.584						
8	0.391	3.006	91.590						
9	0.293	2.257	93.846						
10	0.258	1.988	95.834						
11	0.230	1.766	97.600						
12	0.163	1.255	98.855						
13	0.149	1.145	100.00						

to allocate resources more effectively and provide better customer service [56]. Therefore, in this article, authors have used SEM to provide political marketers with a better understanding of the various marketing strategies they use. The examination estimated two kinds of validity: convergent and discriminant validity. Convergent validity is typically discovered in a measurement model by investigating the outer loadings, average variance extracted (AVE) and composite reliability (C.R.). To establish convergent validity, the loadings must be greater than 0.5, and the C.R. and AVE must be greater

than 0.7 and 0.5, respectively. The discriminant validity is examined by the heterotrait–monotrait (HTMT) ratio and the method of the Fornell–Larcker criterion. The output of the measurement model is given in Fig. 2 and Tables 5, 6 and 7.

Table 5 shows that the loadings of all items are greater than 0.6, the C.R. values for all variables are greater than 0.7, and the AVE values are greater than 0.5, as recommended by [76]. As a result, this study establishes the validity of convergence.



**Fig. 2** Structural model assessment. *Source:* The authors

**Table 5** Internal consistency, convergent validity, composite reliability and average variance extracted (AVE). *Source:* The authors

Construct	Indicators	Outer loadings	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	AVE
Green product	GP_1	0.886	0.867	0.869	0.918	0.790
	GP_2	0.914				
	GP_3	0.866				
Voter attitude	VA_1	0.848	0.925	0.927	0.942	0.729
	VA_2	0.861				
	VA_3	0.832				
	VA_4	0.853				
	VA_5	0.900				
	VA_6	0.827				
Voter behavior	VB_1	0.906	0.850	0.897	0.899	0.695
	VB_2	0.882				
	VB_3	0.897				
	VB_4	0.615				



**Table 6** Fornell–Larcker criterion. *Source:* The authors

	Green product	Voter attitude	Voter behavior
Green product	<b>0.889*</b>		
Voter attitude	0.692	<b>0.854*</b>	
Voter behavior	0.530	0.812	<b>0.834*</b>

**Table 7** Heterotrait–monotrait (HTMT) ratio. *Source:* The authors

	Heterotrait–monotrait ratio (HTMT)
Green product—> voter attitude	0.771
Green product—> voter behavior	0.604
Voter attitude—> voter behavior	0.888

Before presenting the findings, the researcher must also establish discriminant validity. This is done to ensure that the latent constructs being used to assess the causal relationships being investigated are, in fact, distinct from one another. For this, the Fornell–Larcker criterion and HTMT criterion have been used.

The Fornell–Larcker criterion compares the correlation of latent constructs with the square root of the average variance extracted (AVE). Instead of the variance of other latent constructs, a latent construct should be able to explain the variance of its indicator better. As a result, the correlations with other latent constructs should be smaller than the square root of each construct’s AVE. This measurement model’s discriminant validity is acceptable as the correlations with other latent constructs are smaller than the square root of each construct’s AVE, highlighted using bold style and asterisk, and support the discriminant validity between the constructs (Table 6).

The heterotrait–monotrait ratio also demonstrates that this study established discriminant validity because all HTMT ratio values are less than 0.90 (referring to Table 7). In this study, both the validity measures (convergent and discriminant validity) were established.

Multicollinearity occurs when two or more independent variables in a data frame highly correlate in a regression model. This means that one independent variable can be predicted from another in a regression model [30]. When VIF values are more than 5 to 10, the problem of multicollinearity arises [53]. The VIF range of the predictor variables was between 1.628 and 3.609, as shown in Table 8, which is within an acceptable range. Therefore, in this study, the problem of multicollinearity did not exist.

Table 9 explains the SRMR and NFI criteria that are used for checking model fitness. The difference between the observed correlation and the model-implied

**Table 8** VIF score of indicators. *Source:* The authors

Indicator	VIF value
GP_1	2.939
GP_2	3.158
GP_3	2.540
VA_1	3.066
VA_2	3.545
VA_3	2.874
VA_4	3.169
VA_5	3.609
VA_6	3.099
VB_1	2.809
VB_2	2.546
VB_3	2.850
VB_4	1.628

**Table 9** Assessments of model fitness. *Source:* The authors

	Estimated model
SRMR	0.065
NFI	0.805

**Table 10** Structural model assessment direct effect. *Source:* The authors

Hypotheses	Relationship	Beta	STD	T-values	p-values
H1	GP > VA	0.692	0.051	13.460	0.000
H2	GP > VB	−0.061	0.059	1.040	0.299
H3	VA > VB	0.855	0.047	18.130	0.000

**Table 11** Structural model assessment indirect effect (mediation effects). *Source:* The authors

Hypotheses	Relationship	Beta	STD	T-values	p-values
H4	GP > VA > VB	0.591	0.065	9.036	0.000

correlation matrix is the SRMR. It enables the evaluation of the average magnitude of the differences between the observed and expected correlations as an absolute criterion for model fit. Meanwhile, NFI calculates the suggested model’s Chi<sup>2</sup> value and assesses it against a significant reference point. In the model, the SRMR value is 0.065, which is less than the threshold limit of 0.08 [48], and the NFI value is 0.805, which is greater than the required minimum value of 0.8 [12]. As both the values are within the acceptable limit, the model is fit for analysis.

### Structural model evaluation

To test the significance of the path coefficients, the bootstrapping technique was used [90]. A bootstrapping method with 5,000 resamples was used to examine the  $t$ -values. Figure 2 and Tables 10 and 11 show the results of the structural model.

The results of the direct effects are shown in Table 10. The results showed that G.P. (green product of political party) has a significant and positive effect on V.A. (voter attitude) with beta value=0.692,  $t=13.460$  and  $p=0.000$ , and V.A. (voter attitude) also has a significant and positive effect on V.B. (voter behavior) with beta value=0.855,  $t=18.130$  and  $p=0.000$ . However, G.P. does not have a significant relationship with V.B. where beta value=-0.061,  $t=1.040$  and  $p=0.299$ . Hence, H1 and H3 are supported, but H2 is not.

Additionally, in Fig. 2 outer model results were displayed due to which each indicator linked to a variable has a  $p$  value of 0.000, indicating a significant correlation between the indicators and the variable. On the other hand, the negative coefficient value of -0.061 between the green product and voter behavior indicates an insignificant connection between the two.

Table 11 shows the results of V.A.'s mediating role in the relationship between G.P. and V.B. VA significantly mediates the relationship, according to the findings. G.P. with V.B. (beta=0.591,  $t=9.036$  and  $p=0.000$ ). Hence, H4 is supported. It also demonstrates that G.A. plays an important mediating role in the relationship. It is an example of full mediation, where the mediating variable leads to zero direct effect between the independent and outcome variables.

### Discussion

The study's findings suggest that green products ( $\beta=0.692$ ) significantly improve Indian voters' perceptions of the political brand that takes green initiative. To summarize, G.P. favorably influences voter attitudes (H1: G.P.  $\rightarrow$  V.A.,  $\beta=0.692$ ,  $p$ -value=0.000). This indicates that when people learn that a political party actively produces both conventional and green products, they are willing to vote for that political brand. This outcome is consistent with earlier research in the green marketing area, which has tested the impact of green marketing activities of business houses on consumers' attitudes [4, 64, 66, 88].

Moreover, voter attitude ( $\beta=0.885$ ) predicts the strong likelihood that Indian voters will support a political brand that creates environmentally friendly goods. This finding indicates that V.A. and V.B. have a positively significant relationship (H3: V.A.  $\rightarrow$  V.B.,  $\beta=0.855$ ,  $p$ -value=0.000). Voters' positive views of political brands undoubtedly

influence their decision to support them. Therefore, to draw in voters, a brand must cultivate a positive self-image that will eventually translate into actual behavior represented in the form of votes. As a result, it can be claimed that a positive attitude is essential to convert a prospective customer into an actual customer [9, 42, 87, 108].

Additionally, the findings indicated that the green product was not positively correlated with voters' behavior to vote toward the brand; there was no statistically significant relationship between green product and voter behavior (H2: G.P.  $\rightarrow$  V.B.,  $\beta=-0.061$ ,  $p$ -value=0.299). The inference is that Indian voters' intentions to vote for a brand are not directly affected by a political brand's green action. This is highly unexpected, but how could it have happened? This result conflicts with earlier studies [67, 68, 89]. Consequently, it can be explained that in an emerging country like India, traditional political products are plenty more than green political products, or rural areas are still not as polluted as urban areas, so voters do not pay much attention to urban issues such as pollution.

Furthermore, a significant indirect relationship was observed between green products and voter behavior (H4: G.P.  $\rightarrow$  V.A.  $\rightarrow$  V.B.,  $\beta=0.591$ ,  $p=0.000$ ); voter attitude was a mediating variable that examined the link between green products and voter behavior [78, 83]. This can also be explained as changing voter behavior; political marketers should first focus on changing potential voters' attitudes. They should provide evidence of the actual work related to the promises made to the electoral, which will help generate a positive attitude that precedes positive behavior.

The authors of this study were unable to identify the attitude-behavior gap that is typically present for goods or services marketed as green, which can be explained through an example of electric vehicles, although most consumers have a positive attitude toward electric vehicles because they are more environmentally friendly; still, less number of people buy them. Absenteeism of the attitude-behavior gap in this study was statistically established using hypothesis 3, which showed a significant relationship between voter attitude and behavior, indicating that voters' attitudes do translate into actual behavior.

### Conclusion

Political marketing is still in its infancy and has not received much attention from scholars recently, particularly in India. Thus, by carrying out this study, the authors have substantially contributed to the academic field. This study exemplifies the effective application of interdisciplinary research by combining two separate

marketing domains: political and green marketing. In order to obtain a deeper understanding of the thoughts of political consumers, this study integrated environmental studies, marketing and political science in a multidisciplinary manner. Parties can modify their electoral strategies to target environmentally conscious voters by emphasizing eco-friendly projects and sustainable methods. They can make the best use of their financial resources by paying closer attention to political consumers.

### Findings

The study looked at how voters' attitudes and behaviors were affected by the creation of green products by political brands. The findings of this study indicated that creating environmentally friendly products would positively influence voters' attitudes and change their behaviors toward the brand. All of this results from India's younger generation having a high literacy rate, which makes them more conscious of environmental issues and are likely to take protective measures. Additionally, the recent pandemic has increased awareness of this issue across all age groups, compelling governments and corporations to take proactive measures that are environmentally friendly.

However, the result also revealed a negative direct relationship between green products and voters' behavior. Through this, political parties should understand that, although enacting green policies influences voters' opinions, people will only back a political brand if they witness real results; in other words, political brands should focus on fulfilling their electoral pledges.

### Limitations and future scope

This study was limited to the Indian population; therefore, it is impossible to extrapolate the findings to other nations. It is hoped that more cities, countries and people of all ages will be included. Ultimately, the study was limited to analyzing the self-stated voting intentions of the participants; therefore, future research should concentrate on evaluating the actual voter behavior and contrasting it with the stated one.

### Abbreviations

AVE	Average variance extracted
C.R.	Composite reliability
STD	Standard deviation
V.A	Voter attitude
V.B	Voter behavior
G.P	Green product
<i>t</i>	<i>T</i> value
<i>p</i>	<i>p</i> value
H1	Hypothesis 1
H2	Hypothesis 2

H3	Hypothesis 3
H4	Hypothesis 4
GP_1	Statement 1 of variable green product
GP_2	Statement 2 of variable green product
GP_3	Statement 3 of variable green product
VA_1	Statement 1 of variable voter attitude
VA_2	Statement 2 of variable voter attitude
VA_3	Statement 3 of variable voter attitude
VA_4	Statement 4 of variable voter attitude
VA_5	Statement 5 of variable voter attitude
VA_6	Statement 6 of variable voter attitude
VB_1	Statement 1 of variable voter behavior
VB_2	Statement 2 of variable voter behavior
VB_3	Statement 3 of variable voter behavior
VB_4	Statement 4 of variable voter behavior
VIF values	Variance inflation factor
HTMT	Heterotrait–monotrait ratio of correlations

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### Author contributions

PY developed the idea and identified the research gap, BA designed the research methodology, and JM did the analysis.

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Data will be made available on reasonable request.

### Declarations

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