



Hungarian University of Agriculture and Life Sciences

**Understanding Sustainable Consumption Behavior of
Consumers: An Extension to the Theory of Planned
Behavior**

The Thesis of the PhD dissertation

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**by
Farheen Naz**

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Hungarian University of Agriculture and Life Sciences

Name of Doctoral School: Doctoral School of Economics and Regional Sciences

Discipline: Management and Business Administration Sciences

Head of Doctoral School: **Prof. Dr. Lakner, Zoltán DSC**
full professor, head of department
Institute of Agriculture and Food Economics
Department of Agricultural Business and Economics

Supervisor: **Prof. Dr. Robert Magda, PhD**
Full Professor, Hungarian University of Agriculture and Life
Sciences, Szent István Campus
Institute of Agriculture and Food Economics

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Approval of Head of Doctoral School

.....
.....
Approval of Supervisor(s)

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I. INTRODUCTION

According to studies from many organizations on the present and prior state of the environment, the globe is currently experiencing a catastrophic environmental degradation (United Nations, 2012; Zimmermann, 2016; Robinson, 2022). Human activities are influenced by environmental challenges, which also have an impact on corporate development. The continual development of economies with an increasing number of businesses, firms, and companies has resulted in environmental degradation, which has been the cause of climate change and global warming in recent decades (Panda et al., 2020). Humans have acted in ways that have had a harmful impact on the environment and ecology. The combustion of fossil fuels, deforestation, animal rearing, greater industrialization, and the increase in the number of automobiles have all had an impact on the earth's temperature and climate. As a result of all these activities, the number of greenhouse gases in the atmosphere has grown, causing the greenhouse effect and global warming (Sharma, 2021).

According to the Intergovernmental Panel on Climate Change (IPCC 2018), human activities have caused global warming of roughly 1.0°C, with 1.5°C anticipated by 2030 if current trends continue. Carbon dioxide is the most common greenhouse gas in the environment, accounting for 64 percent of man-made global warming and being mostly produced by human activity (Global Climate Change, 2022). As it was clear that the extensive exploitation of the environment is taking place for decades that resulted in pollution, ozone layer depletion, greenhouse effect, rise in global temperature, widespread climate change, melting of glaciers, rise in sea level, etc.

Since the 1980s, industrial-related environmental issues such as global warming, climate change, increased pollution, and the greenhouse effect have been a prominent concern (Yakup and Sevil, 2011). As a result of these environmental issues, a concern for environmental conservation arose. Businesses and corporations are altering their marketing techniques in order to carve out a new market niche for eco-friendly marketing. To address social integrity and propagate green messaging among consumers, several companies are now implementing green marketing methods in their manufacturing processes (Nagaraju & Thejaswini, 2014).

Furthermore, technical advancement has increased the number of activities associated to industries, and the increase in industrial activity has resulted in environmental consequences. These continuous environmental issues have sparked worries about working for the improvement of the ecological system and environmental protection (Casalegno et al., 2022). Following the COVID-19 limitations, global carbon dioxide emissions have recovered and are expected to return

to pre-pandemic levels this year (Canadell et al. 2021). Figure 1 shows the increase in carbon dioxide emissions-

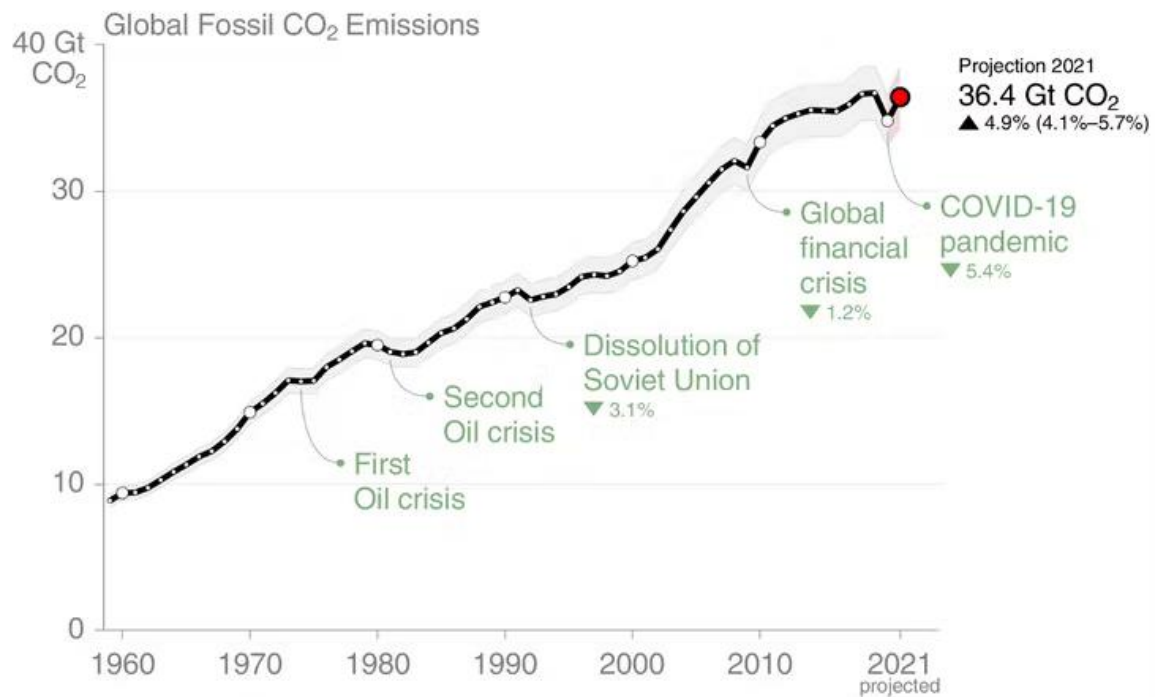


Figure 1. Global Carbon dioxide emission

Source: Global Carbon Project, <https://www.globalcarbonproject.org/carbonbudget>

As a result of these concerns, the government and businesses have adopted green policies. The implementation of environmentally friendly policies spawned a new market that promotes environmentally friendly items that are biodegradable, recyclable, and reusable (Chang et al., 2021). Green products, environment-friendly products, or eco-friendly products are all terms used to describe such items. Green products are the consequence of environmentally friendly marketing strategies, which were coined in the late 1980s and are known as green marketing.

Green marketing encompasses all operations that involve changing a product for the purpose of the environment, making necessary changes to the manufacturing process, switching to eco-friendly packaging, and changing advertising practices to reflect greater environmental considerations. The responsiveness of green products has risen in tandem with the increased awareness of green marketing. Consumer purchasing behavior is influenced by a variety of issues such as environmental concern, environmental protection, the credibility of green products, and so on.

Furthermore, many businesses are now focused on long-term profit through the application of green marketing methods as well as addressing customers' demands and wishes. Consumers are increasingly adopting environmentally friendly activities and are willing to pay more for environmentally friendly goods (Kirmani and Khan, 2018). The purchasing process is exposed to

the growing number of consumers who are interested in and will acquire these things. Customers have a variety of purchase habits, and these habits are always changing as a result of the easy access to the finest options.

Firms that try to safeguard the environment and design their goods properly have a better chance of remaining profitable in the long run than those that focus solely on their old methods. Businesses with a value proposition that emphasizes environmental protection and eco-friendliness have greater clout with customers and can carve out their own market niche (Karasmanaki, 2021). The green marketing mix aids companies in gaining a competitive advantage over their competitors. Furthermore, in terms of consumer behavior, the green marketing mix assists businesses in changing their customers' purchasing habits, and as a result, their changing tastes and preferences assist businesses in adapting their products and services to meet their needs (Sreen et al., 2018).

1.1 Problem Statement and significance of the study

Many modern nations have gradually evolved into "consumer societies" in which consumption plays a major role in stimulating economic growth over the last fifty years. Scientists, social scientists, journalists, and politicians worried about the environment's future contend that the current amount and patterns of consumption are unsustainable. Economy should be stable rather than focused toward maximum growth, according to this viewpoint. Consumption should no longer be a primary source of economic growth. The waste and depletion of many sorts of resources are all exacerbated by indiscriminate consumer goods manufacturing, which adds to climate change, shortages of essential commodities, and waste and exhaustion of many types of resources (Sovacool et al., 2021).

The major focus of this research is to analyze the issues surrounding environmental degradation and how economies and countries are making progress in terms of achieving sustainable development goals. In a broader sense, sustainability refers to the most efficient use of resources to achieve maximum production while having little or no negative impact on the environment or on all stakeholders. The basic goal of sustainable development is to meet the needs and wants of the current generation without causing harm to the resources that future generations will require to meet their requirements. The environmental problems and the causes of environmental degradation are not unfamiliar to the world. For decades many studies have been done in regard to creating awareness related to environmental protection and proposing solutions for changing consumer behavior so as to work towards the protection of the ecosystem. In the present era of globalization, the primary task is to protect the natural environment while still satisfying and retaining customers. With the world's ever-increasing environmental concerns, it's more important than ever to save the planet's natural environment.

This graph (Figure 2) depicts the change in global surface temperature from 1951 to 2020, as compared to average temperatures. With the exception of 1998, all but one of the twenty warmest years have happened since 2001. The year 2016 will go down in history as the warmest on record.

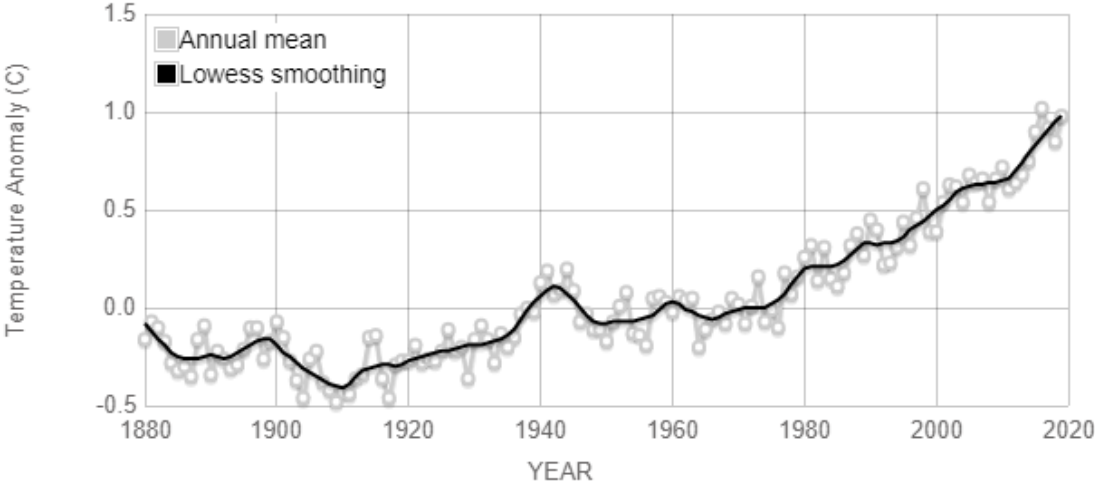


Figure 2. Global surface temperature

Source: NASA's Goddard Institute for Space Studies (GISS), 2019.

Household consumers, according to researchers, are by far the biggest drain on the globe, which paints a totally different image than simply national-focused evaluations of environmental effect. To put it another way, before we start blaming entire countries for the situation of the world, we should definitely examine our own behaviors and demands. Consumers are responsible for more than 60% of worldwide greenhouse gas emissions and up to 80% of global water usage, according to the researchers, who looked at the influence of consumers in 43 nations and five rest-of-the-world regions. Household consumption is responsible for 60–80 percent of global impacts. Changes in our consumption habits will have a significant impact on our environmental footprint (Peter Dockrill, 2016). We can cut GHG emissions and establish a sustainable lifestyle and economy by modifying how humans consume natural resource-based products and services around the world.

This study’s significance can be drawn from the facts that in the Indian context, there is a scarcity of literature on green consumption behavior. According to Kamalanon et al. (2022), there is a shortage of understanding and awareness about green products in India. According to the Dupont green living survey (2014), India's awareness of green products (63 percent) is significantly lower than that of industrialized countries such as Canada (78 percent) and the United States (73 percent). Organizations that do not develop green products for the Indian market are to blame for the low level of awareness (Green Purchasing Network of India, 2014). Customers can be educated, and better goods can be built to raise awareness levels (Wei et al., 2018). More information about green

products, according to Rahman and Reynolds (2019) will assist generate improved attitudes about green products.

Due to increased customer knowledge, green and environmental issues have become more important in businesses around the world (Debrah et al., 2021; Arshad et al., 2021). Consumers and businesses alike are increasingly favoring green products as environmental protection becomes a major priority around the world. Eco-friendly items, on the other hand, had an impact on the consumer's buying decision.

It has been reported that Indian consumers are concerned about environmental degradation and feel guilty about their impact on the environment (Dupont green living survey, 2014). (Greendex Survey, 2012). According to Saxena and Khandelwal (2010), people's considerable concern about environmental issues and readiness to buy green products should push businesses to manufacture more green products. However, environmental concern does not always convert into purchasing habits (Akehurst et al., 2012). Green consumption has not taken off in India, despite widespread public concern about the environment. As a result, it is critical to examine elements that may influence Indian customers' buying intentions for green products.

The major goal of this research is to evaluate customers' green purchasing habits in India's urban areas. The research focuses on customers who have previously purchased green items. There is a paucity of literature that examines Indian customers' green purchasing habits. As a result, the purpose of this study is to address a research gap by reviewing the literature on green consumption and examining the factors that influence consumers' green purchasing decisions in India. This study is unique in that it is the first empirical study to examine Indian consumers' green purchase behavior by incorporating constructs such as social sustainability awareness, environmental sustainability awareness, and willingness to pay into the previously accepted theory of planned behavior. Another goal of this research is to extend the notion of planned behavior. The lack of literature on the topic from an Indian viewpoint has necessitated this study in order to recognize the direct impact of such structures on consumer purchase behavior.

The findings of this study will assist marketers and policymakers in making changes to their marketing strategies by taking into account consumers' attitudes and intentions toward green products. Consumers' purchasing behavior is influenced by their awareness of the environment and their intention to buy. As a result, enterprises and firms involved in environmental protection can develop a strategic advertising strategy to raise environmental consciousness. This research will also contribute to closing the research gap in this area. This study's academic contribution will help to inform future research and the creation of the new model. The constructs used in this study

to understand the GPB, such as willingness to pay (WTP), attitude toward green products (ATGP), perceived behavioral control (PBC), subjective norms (SN), and green purchase intention (GPI), have been shown to be effective in various studies conducted in various countries.

1.2 Objectives of the study

The two main objectives have been taken into consideration in this study. (1) To recognize the factors that are affecting consumers' attitudes toward environment-friendly products as well as to review the literature highlighting the preferences of green consumers. (2) To suggest a viable model that will represent the attitude of consumers toward green products. For a better understanding of the research the subsequent sub-objectives have been made:

1. To analyze and review the literature regarding the consumer's purchase behavior for green products.
2. To analyze the comprehensive models and theories related to consumers' attitudes toward green products.
3. To examine and study the reasons that affect the green buying behavior of the consumers.
4. To examine the nature and degree of relationship between the consumer's attitude towards eco-friendly products and their willingness to pay for such products.
5. To examine the effect of demographic variables on the perception of consumers related to environmental consciousness, eco-literacy, willingness to pay, and their attitude towards eco-friendly products.
6. To suggest and validate a viable model for analyzing consumers' attitudes toward green products.
7. To study the influence of psychological and socio-demographic factors on consumers' response toward green purchases.
8. To propose the advantages of the application of green marketing policies in creating the value proposition and the competitive advantage on the basis of the response of consumers.

1.3 Research Questions

This study will attempt to answer the following research questions-

1. What are the most critical factors that will influence customers' green purchasing behavior (GPB) in India?
2. What is the degree of sustainable habits adopted by consumers in India?
3. Do demographic factors like gender, age, income, and educational attainment have any effect on the adoption of sustainable habits?

4. What is the level of environmental and social sustainability awareness among consumers in India?
5. Does environmental and social sustainability awareness among consumers in India affect their attitude towards green products?
6. Do demographic factors such as gender, age, income, and educational attainment have any effect on GPB??
7. Are people price-sensitive when it comes to green products?
8. Is there any evidence that GPI has a mediating influence in the link between dependent and independent variables?

1.4 Hypotheses

The study comprises the following hypotheses to examine the direct and mediating effects of the variables.

1.4.1 Direct effects

Hypothesis 1 – Social sustainability awareness (H1a) and environmental sustainability awareness (H1b) have a significant positive relationship with Attitude.

Hypothesis 2 – Attitude (H2a), Subjective norms (H2b), Perceived behavioral control (H2c), and Willingness to Pay (H2d) have a significant positive relationship with green purchase intention.

Hypothesis 3 – Attitude (H3a), Subjective norms (H3b), Perceived behavioral control (H3c), and Willingness to Pay (H3d) have a significant positive relationship with green purchase behavior.

Hypothesis 4 – Green purchase intention has a significant positive relationship with green purchase behavior.

1.4.2 Mediating effects

Hypothesis 5- The relationship between attitude and green purchase behavior is mediated by green purchase intention.

Hypothesis 6- The relationship between subjective norms and green purchase behavior is mediated by green purchase intention.

Hypothesis 7- The relationship between perceived behavioral control and green purchase behavior is mediated by green purchase intention.

Hypothesis 8- The relationship between willingness to pay and green purchase behavior is mediated by green purchase intention.

Figure 3 depicts the proposed conceptual research framework based on the proposed hypotheses.

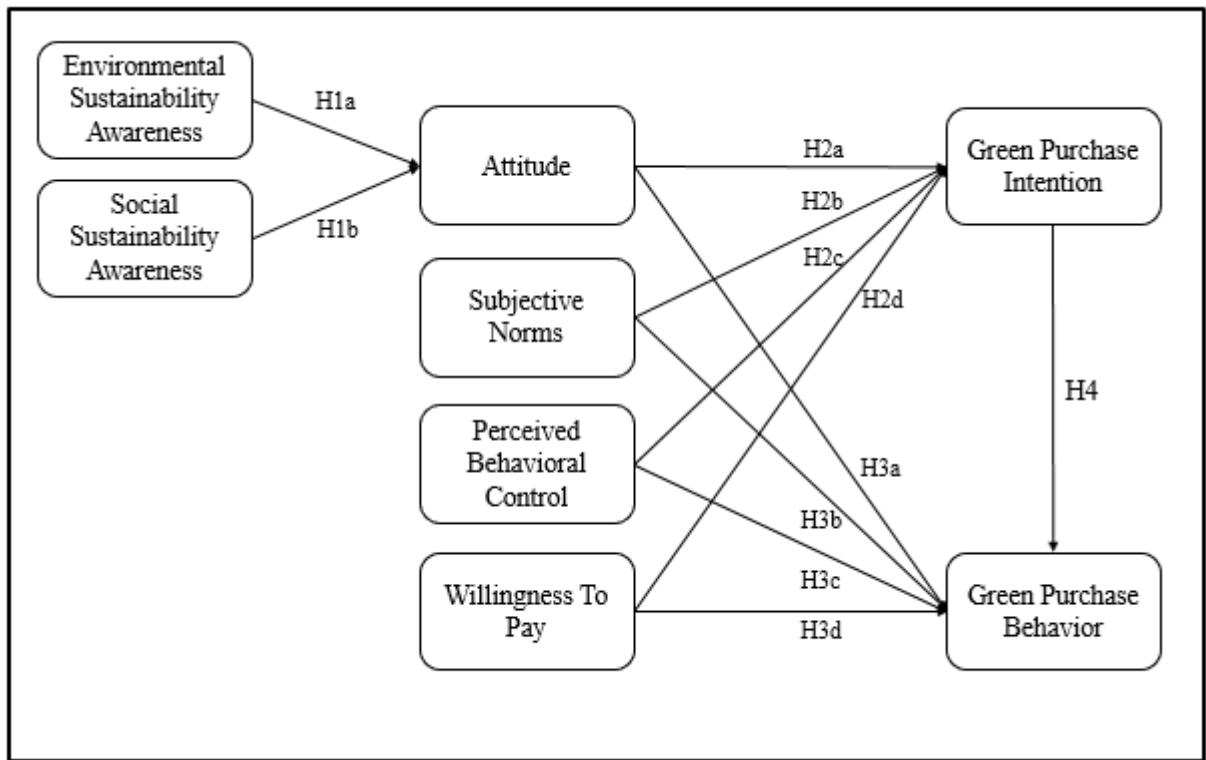


Figure 3. A proposed conceptual framework based on literature and framed hypotheses
 Source: Author's own construction

II. Materials and Methods

2.1 Research tool

The data gathering tool used in this research was a closed ended structured questionnaire. Closed-ended structured questionnaires are those that have a pre-determined response format and are made up of closed-ended questions with a pre-defined set of options (Malhotra and Dash, 2011). A pre-created set of various constructs and their respective questions to which respondents respond and contribute to the data collection process is termed as questionnaire (Sekaran and Bougie, 2016).

The benefits of a closed-ended structured questionnaire, as documented in a large number of prior research, are that it is easier to analyze, code, compare answers, and saves time and resources (Frew et al., 2003; Malhotra and Dash, 2011). Because of these benefits, as well as its application in a large number of past consumer studies on green preferences (Naz et al., 2020; Panda et al., 2022; Mostafa, 2007) the researcher used closed-ended and well-structured questionnaire.

2.1.1 Questionnaire Design and Development

The purpose of this empirical study is to test the hypothesised relationship. Customers are becoming more aware of sustainability issues; as a result, service providers must be mindful of their shifting preferences (Jaiswal and Kant, 2018). As a result, we conducted this research in the following manner. There are eight constructs in the proposed model including variables of the Theory of planned behaviour: (1) social sustainability awareness, (2) environmental sustainability awareness, (3) Attitude towards green products, (4) subjective norms, (5) perceived behavioural control, (6) green purchase intention, (7) willingness to pay, and (8) green purchase behaviour. Table 1 lists the indicative variables for each of the discovered constructs.

The items in the questionnaire refer to the questions that are going to be asked to the respondents to collect the data on the basis of their response. It should be kept in the mind that the response of the subjects can be either positive or negative, and the interviewer should not force the respondents for the sake of his positive or negative result that the researcher wants. Also, to reduce the biasness in the responses of the subjects the questions are asked to make in both the negative and the positive manner like the words that are being used to make the questions should include both negative and positive language (Sonderen et al., 2013). The scales used in the conceptual model include both which were adopted from relevant literature and the ones which were pretested by the researcher in the previous published papers. The scales and respective items used in the published papers are given below.

The questionnaire was divided into three sections. The first section of the questionnaire constitutes questions concerning the demographic profile of the respondents. The second section of the

questionnaire comprises ten questions to examine the sustainable habits of the consumers, for instance, recycling, energy consumption, water consumption, etc. The third section of the questionnaire comprises questions to examine the variables ESA, SSA, ATT, SN, PBC, WTP, GPI, and GPB. These assertions were built on a “five-point Likert scale” devised by Rensis Likert (1931) for attitude evaluation. This scale is widely regarded as one of the most effective tools for assessing behavior (Taherdoost, 2019). Malhotra and Dash (2011) indicated that each Likert scale question contains five response classifications: “strongly disagree, disagree, neutral, agree, and strongly agree”. As a result, the Likert scale is extensively employed to assess attitudes, beliefs, and approaches in marketing study since it allows respondents to express ideas of varying degrees.

Table 1. Constructs and respective indicators with codes

Constructs	Items	Sources	
Environmental Sustainability Awareness	EA1	“I am aware of the environmental changes the world is going through.”	Panda et al. (2020), Yong et al. (2020); Stöckigt et al. (2018)
	EA2	“I am aware of environmentally ethical products.”	
	EA3	“I am aware about the growing pressure to change the way of living to combat the deterioration of the environment.”	
	EA4	“I am aware about the personal responsibility towards environmental changes.”	
	EA5	“I am aware that individuals can influence the overall environmental awareness levels.”	
	EA6	“I am aware of that individual are making efforts to deal with environmental changes.”	
	EA7	“I am aware that societal influence can increase individuals’ environmental awareness.”	
Social Sustainability Awareness	SA1	“I am aware that organisations must be careful about implementation of social practices.”	Panda et al. (2020); Yong et al. (2020)
	SA2	“I am aware that similar products do not provide a common meaning to the society.”	
	SA3	“I am aware that everyone does not have equal access to various products and services.”	
	SA4	“I am aware that products are not updated as per societal needs.”	
	SA5	“I am aware that products have impacts on my safety and health.”	
	SA6	“I am aware about that some products help the developing communities.”	
	SA7	“I am aware that some products have an operational impact on certain communities in a positive way.”	
Attitude towards green products	AT1	“I believe that use of green products will help in reducing pollution and help in improving the environment.”	Kumar et al. (2017); Ramayah et al. (2012)
	AT2	“I believe that use of green products will help in reducing wasteful use of natural resources.”	
	AT3	“I believe that use of green products will help in conserving natural resources.”	
Subjective Norms	SN1	“Most people who are important to me think I should purchase green products when going for purchasing.”	Chaudhary & Bisai (2018); Yadav & Pathak (2017).
	SN2	“Most people who are important to me would want me to purchase green products when going for purchasing.”	
	SN3	“People whose opinions I value would prefer that I purchase green products.”	
	SN4	“My friend’s positive opinion influences me to purchase green product.”	
Perceived Behavioural control	PBC1	“Whether or not I buy green product at place of conventional non-green product is completely up to me.”	Kim & Han (2010); Yadav & Pathak (2017)
	PBC2	“I am confident that if I want to, I can buy green product at place of conventional non-green product.”	
	PBC3	“I have resources, time and opportunities to buy green product.”	
Intention to buy green Products	GPI1	“I will consider buying products because they are less polluting in coming times.”	Chaudhary & Bisai (2018); Naz et al. (2020)
	GPI2	“I will consider switching to environmentally friendly brands for ecological reasons.”	
	GPI3	“I plan to spend more on environmentally friendly product rather than conventional product.”	

	GPI4	"I expect to purchase product in the future because of its positive environmental contribution."	
	GPI5	"I definitely want to purchase green products in near future."	
Willingness to pay	WTP1	"I would pay more for a green product that is making efforts to be environmentally friendly."	Chaudhary & Bisai (2018); Naz et al. (2020)
	WTP2	"I would be willing to pay this extra percentage on the green products to support the organization's/ product efforts to be environmentally friendly."	
	WTP3	"I feel proud to have environmentally friendly products in my house though they are more costly than conventional products."	
Green purchase Behavior	GPB1	"When I want to buy a product, I look at the ingredients label to see if it contains things that are environmentally damaging."	Lee (2008); Jaiswal & Kant, R. (2018); Naz et al. (2020)
	GPB2	"I prefer green products over non-green products when their product qualities are similar."	
	GPB3	"I choose to buy products that are environmentally friendly."	
	GPB4	"I buy green products even if they are more expensive than the non-green ones."	

Source: Author's own construction

2.2 Sampling Method and Sample Size

Sampling is defined as the selection of the fragment of the population that a researcher is taking into consideration for the study. The study is proposed to be conducted in India for analyzing the green purchase behavior of the consumers. It is taken into account that; the respondents have the knowledge regarding environmental issues and they are the ones making purchase decisions. The study will be analysed using PLS SEM, hence the size of the data will be decided accordingly. Some studies suggested that the structural equation modelling is very sensitive to the size of the sample as the findings for the small size of sample are resulted in unstable results.

A commonly used sample size assessment criteria in PLS SEM is the technique of ten times rule (Kock & Hadaya, 2018; Hair et al., 2012). This ten times rule has been justified in many studies conducted since long but none of the researcher suggested the original explanation of the rule. However, Nunnally (1994) have suggested that the best rule of estimation of sample size in SEM is to have 10 times a greater number of respondents than variables (Westland, 2010). In this regard it is decided to take more than 500 respondents as subjects to generate the data.

The research study is based on primary data gathered by urban purchaser survey via online survey using structured questionnaire. A snowball sampling approach was implemented to select the respondents that are the representative of the population from the urban areas of India. When gathering the data, it was made sure that the respondents have previous experience of green products and are accountable for buying assessments.

2.3 Data Analysis

To analyse the primary data and drawing inferences, both inferential and descriptive statistical methods were employed. For descriptive statistics and Exploratory factor analysis (EFA), SPSS V. 26 was used. In order to test the hypothesis, partial least square structural equation modeling

(PLS SEM) was employed by using SmartPLS 3.0. Furthermore, R studio was used to draw stacked charts to examine the extent of sustainable habits shown by the consumers.

2.3.1 Partial Least Square Structural Equation Modeling (PLS SEM)

The research findings are organized into three sections. First, the frequency with which individuals engaged in such behaviors is investigated. Secondly, the relationship that conventionally defined green purchase intention and green purchase behaviors were assessed. Finally, the various levels of behavioral commitment are investigated in relation to the numerous aspects that have been associated to green purchasing behavior, such as sustainability awareness, socio-demographics and psychological factors.

The present study used following methodology and measures for verifying the mentioned hypotheses and the model. Partial Least Squares based Structural Equation Modelling (PLS SEM) will be applied to examine the proposed conceptual framework. SEM is a very dominant, strong and multivariate method which is increasingly found in many scientific studies in order to test and analyse multivariate causal relations. Other modelling methods assess indirect and direct effects already assumed causal relations unlike SEM. This statistical method is around a millennium old and has gained progress since a very long time (Fan et al., 2016). SEM is a method that estimates a chain of dependent relationships out of the set of factors that are assimilated into the incorporated model (Hair et al., 2014).

In structural equation modelling a construct is a dormant or undetected notion that can be explained conceptually but not possible to examine directly and hence can be assessed by given variables and several indicators that are included in questionnaire (Hair et al., 2010). Structural Equation Modelling is defined as a multivariate statistical analysis and is a combination of two accustomed multivariate procedures such as multiple regression analysis and factor analysis (Lowry and Gaskin, 2014). SEM is famous for another great strength that is the capability to divide the direct and indirect effects and to separate the multiple paths to check which unit can influence other unit (Eisenhauer et al., 2015).

In SEM models, there are two basic techniques to evaluating a connection namely CB-SEM (covariance-based structural equation modeling) and VB-SEM (variance-based structural equation modeling) (Hair et al., 2017). The most common type of VB-SEM is Partial Least Squares (PLS). Herman Wold (1982) was the first to create PLS-SEM, which he called PLS path modeling at the time. Currently, PLS-SEM is a more contemporary acronym for the approach (Hair et al., 2011). PLS-SEM and CB-SEM both appeared around the same time. In comparison to CB-SEM, PLS-

SEM provides a structural equation modeling technique with far more flexibility. Manley et al. (2021) refer to many research objectives to classify when and why to use PLS-SEM. For instance-

- (1) For exploratory research to extend the existing theories or to develop new theories.
- (2) The research's major statistical goal is to make predictions.
- (3) Multi-item latent variables are included in the study.
- (4) The structural model is complex, containing several constructs, indicators, and/or causal linkages.
- (5) Research focusing on small sample size.
- (6) As is common of social sciences and survey data, data are not normally distributed.

Hence, this study employed PLS-SEM as the main objective of the research is to explore complex multi-item latent variable model and to extend the theory of planned behavior. In PLS-SEM the estimation and analysis of causal relationships is the main characteristic of this method. The specification of the correlation and causal relationship between the given variables is the very first stage of structural equation modelling. Also, the correlation and causal relation without any appropriate explanation or theoretical background weaken the causative relation in hypotheses (Shipley, 2016). This study is a pioneering work analysing the consumer's behavior towards green products and therefore the appropriate method considered for validating and testing the conceptual model is PLS-SEM. The steps followed for conducting PLS-SEM are based on the methodology employed by Hair et al. (2014). This method is considered a standard methodological approach to conduct PLS-SEM.

The steps followed to conduct PLS-SEM are given in figure 4.

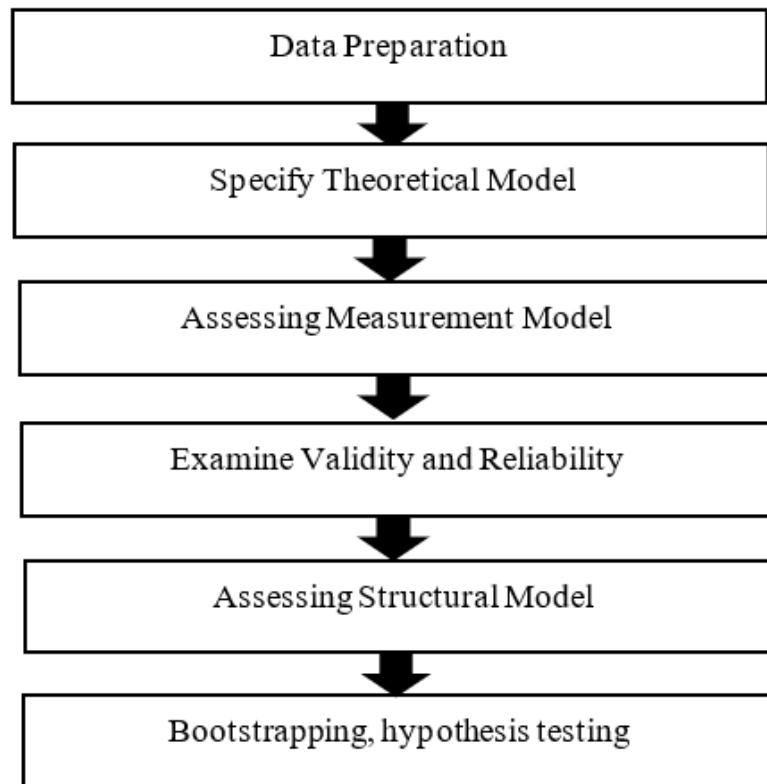


Figure 4. Steps followed in PLS SEM

Source: Author's own construction

PLS involved two models termed as outer and inner models. The outer model refers to the association of constructs and their respective items. Whereas, the inner model, on the other hand, depicts the link among the latent constructs (Wong, 2019). Furthermore, in the PLS SEM, the outer model constitutes two models namely formative measurement model and reflective measurement model.

Each item in the reflective model signifies a measure of the latent variable. Furthermore, the direction in this model is from the latent variable to its elements. In the formative paradigm, on the other hand, items establish their variables, and the path of communication is from the items to the latent variable (Hair et al., 2014). This study used a reflective measurement model as each item represents the latent variable.

2.3.2 Research Framework

In designing of the research, the conceptual framework is the one of the most important aspect. The conceptual framework is actually a diagram of the research that shows the paths on which the study has be moved on or in which direction the study has to be done (Adom et al., 2016). The readers can easily understand the concept and design of the research by just analysing the framework proposed by the author, so it is easy for both the researcher and the readers to follow

the conceptual framework. The conceptual framework proposed for the study is given below in Figure 5.

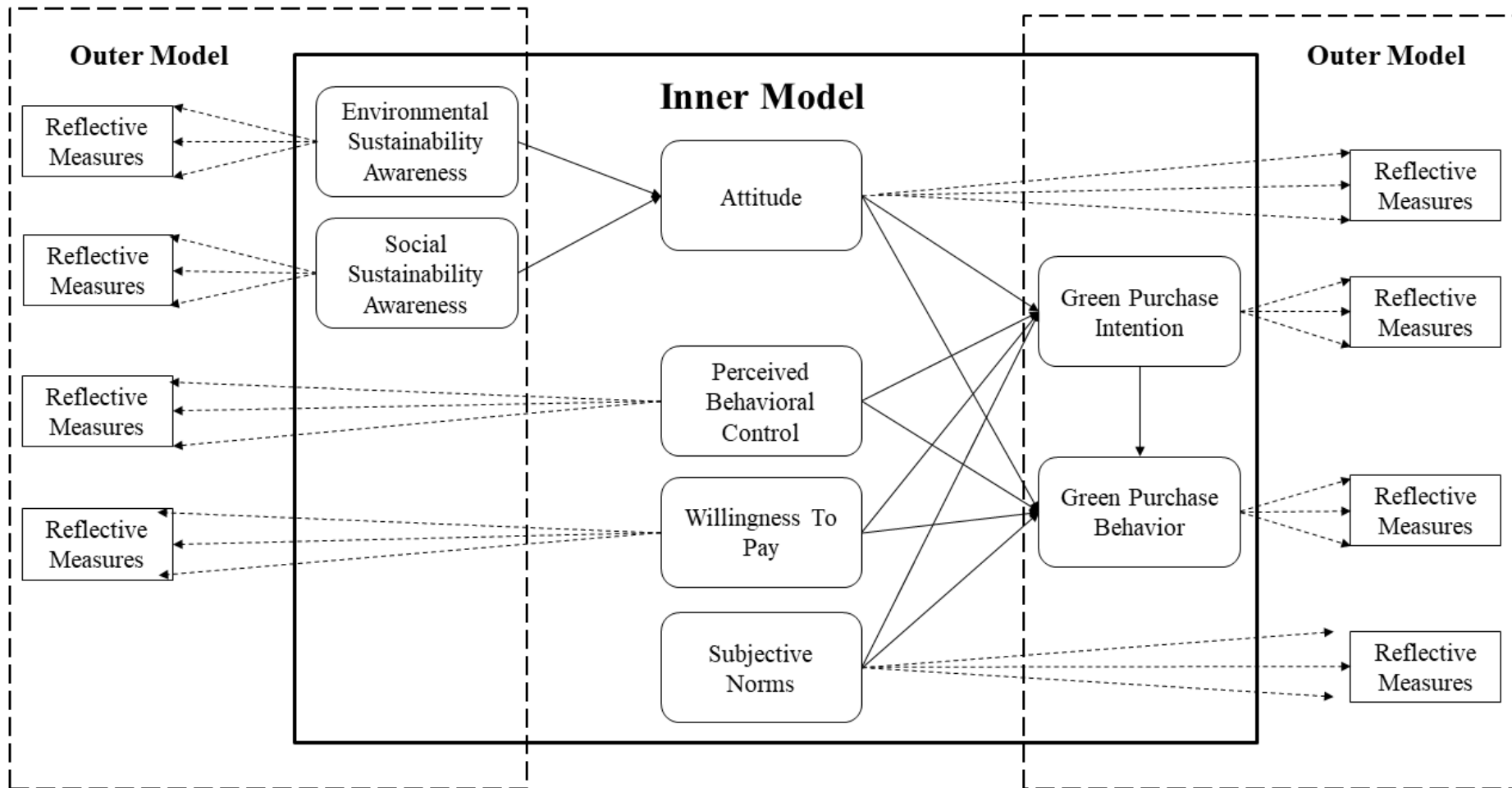


Figure 5. Inner and outer model of the Research Framework

Source: Author's own construction

2.4 Research Flowchart

The conceptual structure and step by step process to conduct the research is known as research flowchart. It contains the plan for the examination, amount and assemblage of data (Malhotra & Dash, 2011). Akhtar (2016) stated that design of research is the glue that holds all the research components together. He further stated that research design has following important features:

- i. It specifies the relevant information and sources for the required information.
- ii. It clarifies that which approach should have to be used to analyze and to collect the data.
- iii. It also helps in deciding the economics and timeframe of the study.
- iv. A good research design also includes the population which has to be studied.

This study is the combination of both conclusive and exploratory research. To find the important trends in consumer decisions regarding the purchase of green products, the link between these trends and the link to the methodologies used in the previous studies comes in the first phase of this study which will be exploratory in nature.

The second phase of this research will include the deep and thorough study of the trends and connections between the different variables which are representing the behaviour of consumers towards the green products. The deep analysis of all the variables in this phase will leads to the conclusion of the study which shows the conclusive nature of the study in this phase. Important things in this phase will be: Formal and structured process of research, clearly defined information, samples will be representative and large, data will be analysed quantitatively and at the end conclusion will be given based on the findings (Malhotra and Dash, 2011). As the intention in this study will be to explain the degree of the relationship between the consumer behaviour trends for green products, so more specifically, this study will be descriptive in nature.

Figure 6 depicts the research flowchart used in this study to conduct the research.

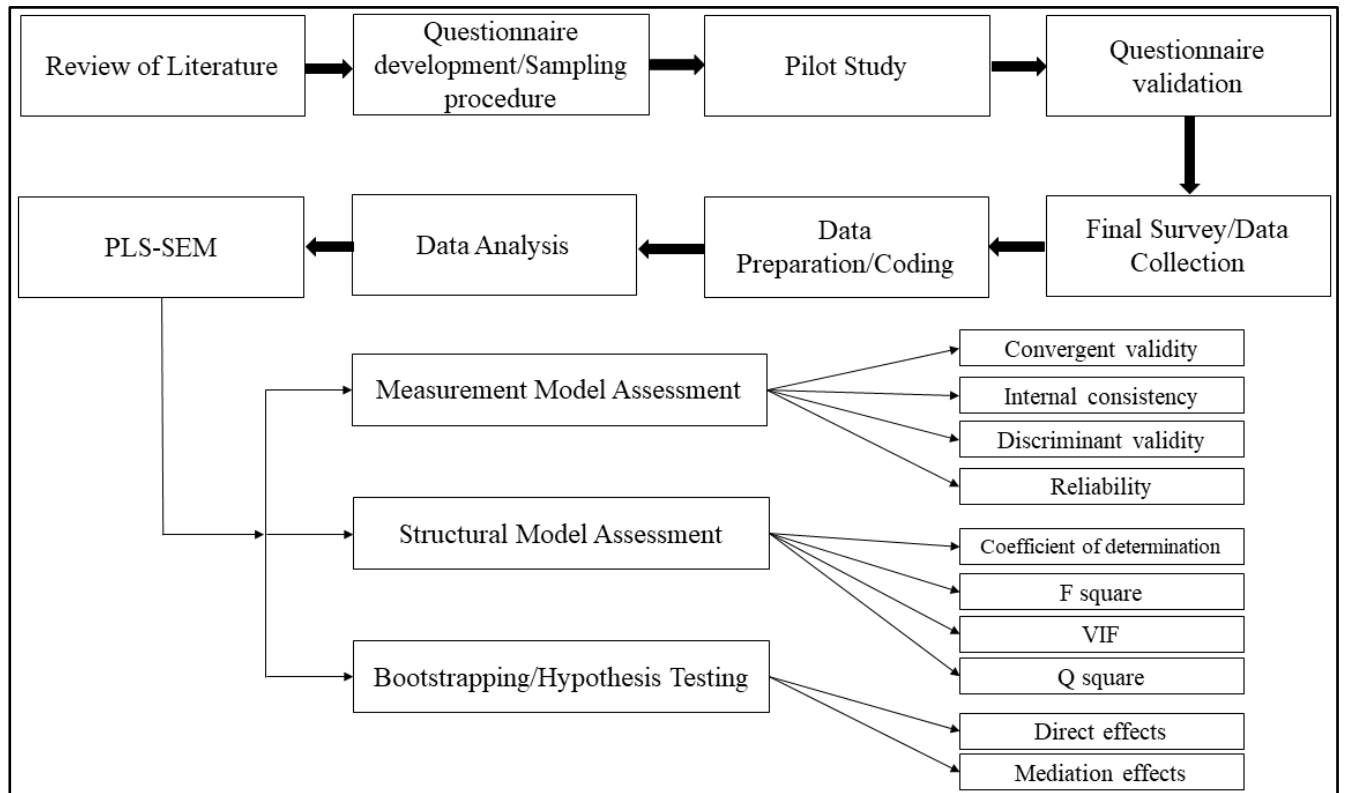


Figure 6. Research Flowchart
 Source: Author's own construction

III. Results and Discussion

3.1 Respondent's demographic profile

This descriptive statistics for the respondents' various socio-demographic traits is described in this section. At the start of the survey, respondents were asked to define their gender, age, education qualification, and income in order to acquire socio-demographic data. These characteristics will be briefly detailed further on. As previously stated, 983 respondents' data was acquired via distributing the questionnaire during the research period. The women made up the majority of the responders. Females accounted for 613 of the 983 respondents, or about 62 percent, while males accounted for 38 percent of the total respondents. The distribution of respondents based on their age that the respondents with age between 18 and 25 have the highest frequency with 46%. Then, around 36% of respondents come under the category of 26-35 years and around 7% under 36-45 years. The least percentage of respondents are from the category of under 18 and above 45 with 5% and 5.4%, respectively. The majority of those who responded are pursuing or hold a master's degree (48%). Then, 37% of the respondents belong to the category of bachelor education and 14% belong to higher education category. As the study was conducted in India, therefore, the category of income was based on Indian Rupee (INR). Currently 1 USD = 75.9 INR. According to the data collected, around 17% of the respondents earn less than 20,000 INR. The results show that majority of respondents around 48% earn between 20,000-40,000 INR per month. Lastly, 21% of respondents earn between 40,000-60,000 INR per month and 12% of respondents earn above 60,000 INR per month.

3.2 Hypothesis testing and Result of Bootstrapping test

After analyzing the measurement model, the proposed theoretical model's reliability and validity were confirmed, and the structural model's predictive significance was determined. The information was then utilized to examine the structural model as well as all hypotheses. Path coefficient analyses were used to evaluate all hypotheses, which include the primary and mediating hypotheses. It's worth remembering that the hypothesis may be supported if the t-statistic value is greater than 1.96 at the 5% confidence level (Sekaran and Bougie, 2016). For this purpose, PLS SEM and bootstrapping method was utilized. Bootstrapping is a non-parametric method for estimating the significance of PLS coefficients that employs resampling strategies. Bootstrapping works by generating a large number of subsamples by replacing the original sample and estimating the model parameters for each resample. It is based on the premise that the sample distribution offers accurate information about the population under investigation. These resamples are then used to test the path model that was developed after

subsamples were randomly selected from the original dataset. This procedure is repeated until 5000 random samples have been generated (Henseler et al., 2015).

The significance of the path coefficients can be assessed using the bootstrapping approach and p values and t statistics. The many paths offered in the research model are the hypotheses made for the investigation. As a result, the associated hypothesis can be accepted or denied by determining the statistical significance of each path coefficient

Table 2 reveals the t statistics, beta weights, and p values of each path coefficient.

Table 2. Bootstrapping results (Hypotheses testing)

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
ESA -> ATT	0.337	0.334	0.092	3.679	0.000
SSA -> ATT	0.174	0.184	0.087	1.999	0.046
ATT -> GPI	0.334	0.334	0.055	6.125	0.000
SN -> GPI	0.255	0.257	0.074	3.458	0.001
PBC -> GPI	0.154	0.153	0.059	2.605	0.009
WTP -> GPI	0.225	0.225	0.066	3.397	0.001
ATT -> GPB	-0.005	-0.011	0.072	0.071	0.943
SN -> GPB	0.241	0.243	0.078	3.101	0.002
PBC -> GPB	0.113	0.117	0.066	1.698	0.090
WTP -> GPB	0.150	0.15	0.071	2.110	0.035
GPI -> GPB	0.225	0.225	0.066	4.480	0.001

Source: Author's own work based on SmartPLS

The bootstrapping results revealed that environmental sustainability awareness and social sustainability awareness pose significant positive influence on attitude of the consumers with (($\beta = 0.337$, $T = 3.679$, $p < 0.05$) and ($\beta = 0.174$, $T = 1.999$, $p < 0.05$), respectively. Similarly, the impact of four variables namely attitude, subjective norms, perceived behavioral control, and willingness to pay was assessed on green purchase intention. The results revealed that all these variables significantly and positively influence green purchase intention with following statistics: attitude ($\beta = 0.334$, $T = 6.145$, $p < 0.05$), subjective norms ($\beta = 0.255$, $T = 3.458$, $p < 0.05$), perceived behavioral control ($\beta = 0.154$, $T = 2.605$, $p < 0.05$), and willingness to pay ($\beta = 0.225$, $T = 3.397$, $p < 0.05$). The impact of attitude on green purchase behavior was came out to be insignificant with values ($\beta = -0.005$, $T =$

0.071, $p > 0.05$), which means that attitude do not positively or negatively influence consumers green purchase behavior. Similarly, perceived behavioral control revealed insignificant influence on green purchase behavior with values ($\beta = 0.113$, $T = 1.698$, $p > 0.05$). On the other hand, subjective norms ($\beta = 0.241$, $T = 3.101$, $p < 0.05$) and willingness to pay ($\beta = 0.150$, $T = 2.110$, $p < 0.05$) showed significant positive influence on green purchase behavior. Lastly, the influence of green purchase intention on green purchase behavior is significantly positive with values ($\beta = 0.225$, $T = 4.480$, $p < 0.05$).

3.3 Mediation Analysis

The bootstrapping method was used to test the significance of the indirect effect (mediation effect) (Preacher and Hayes, 2008). In SmartPLS, bootstrapping is used to calculate the specific indirect effects. A mediation effect exists when the third variable interferes with the link between the independent and dependent variables (Hair et al., 2021). Based on Table 3, the results demonstrated that the mediation effect of GPI has a positive significant impact on the relationships between dependent and independent variables. The mediating effect of the mediating variable is necessary to assess separately for each independent variable as it gives a clear interpretation that in which relationship the variable is acting as a positive mediator or negative mediator.

Table 3. Mediation Analysis (Specific indirect effects)

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
ATT -> GPI -> GPB	0.117	0.118	0.034	3.456	0.001
SN -> GPI -> GPB	0.089	0.09	0.032	2.830	0.005
PBC -> GPI -> GPB	0.054	0.054	0.024	2.243	0.025
WTP -> GPI -> GPB	0.079	0.08	0.031	2.555	0.011

Source: Author's own work based on SmartPLS

The summary of the hypotheses test results is provided in Table 4.

Table 4. Summary of Hypotheses test results

	Hypotheses	Results
Hypothesis H1a	Social sustainability awareness has a significant positive relationship with Attitude.	Accepted

Hypothesis H1b	Environmental sustainability awareness has a significant positive relationship with Attitude.	Accepted
Hypothesis H2a	Attitude has a significant positive relationship with green purchase intention.	Accepted
Hypothesis H2b	Subjective Norms have a significant positive relationship with green purchase intention.	Accepted
Hypothesis H2c	Perceived behavioral control has a significant positive relationship with green purchase intention.	Accepted
Hypothesis H2d	Willingness to pay has a significant positive relationship with green purchase intention.	Accepted
Hypothesis H3a	Attitude has a significant positive relationship with green purchase behavior.	Rejected
Hypothesis H3b	Subjective Norms have a significant positive relationship with green purchase behavior.	Accepted
Hypothesis H3c	Perceived behavioral control has a significant positive relationship with green purchase behavior.	Rejected
Hypothesis H3d	Willingness to pay has a significant positive relationship with green purchase behavior.	Accepted
Hypothesis H4	Green purchase intention has a significant positive relationship with green purchase behavior.	Accepted
Hypothesis H5	The relationship between attitude and green purchase behavior is mediated by green purchase intention.	Accepted
Hypothesis H6	The relationship between subjective norms and green purchase behavior is mediated by green purchase intention.	Accepted
Hypothesis H7	The relationship between perceived behavioral control and green purchase behavior is mediated by green purchase intention.	Accepted
Hypothesis H8	The relationship between willingness to pay and green purchase behavior is mediated by green purchase intention.	Accepted

Source: Author's own work based on SmartPLS

3.4 Discussion

This study investigated the relationship of various latent variables with green purchase intention and green purchase behavior of Indian consumers. Furthermore, another major aim of this study is to extend the theory of planned behavior. As many researchers have proven the predicting behavior of this theory in consumers' pro-environmental behavior (Maksan et al., 2019; Xu et al., 2020), however, despite its widespread use, the TPB has been subjected to a number of criticisms over the years, primarily for its alleged poor predictive efficacy, which is attributed to the use of an insufficient number of variables to explain the factors that drive people to engage in certain behaviors in specific situations (Teo et al., 2016; Tommasetti et al., 2018). Therefore, this study attempted to extend the theory of planned behavior with the addition of variables like social sustainability awareness,

environmental sustainability awareness, willingness to pay, attitude, subjective norms, perceived behavioral control, green purchase intention, and green purchase behavior. Based on responses from Indian consumers, the developed model was tested and validated with confirmatory factor analysis and model fit indices. Both the model and the measurement instrument were validated using various approaches and analyses. Finally, hypotheses were tested, including primary and mediating hypotheses.

The empirical results obtained from partial least square structural equation modeling revealed that social sustainability awareness and environmental sustainability awareness positively influence the attitude of the consumers towards green products. To the best of the author's knowledge, none of the studies has found the impact of these two variables on transforming the attitude of Indian consumers. However, Panda et al. (2020) investigated the role of social sustainability awareness and environmental sustainability awareness on altruism, which further influenced the attitudinal green purchase intention of Indian consumers. The results of their study have proven a significant positive impact of these variables on attitude through altruism. Therefore, the current study has provided novel evidence of the positive relationship between social sustainability awareness and environmental sustainability awareness with an attitude toward transforming the green purchase intention. This result indicates that awareness of social and environmental issues directly influences the attitude of the consumers toward green products. According to the findings, customers who are ecologically and socially conscious are more likely to acquire attitudes toward green items while making purchase decisions. This study demonstrates that environmental and social education has a positive influence on the younger generation, and it also suggests that eco-education programs should be undertaken to promote understanding.

Furthermore, the study revealed that attitude and perceived behavioral control do not have a direct positive impact on green purchase behavior. This result is in line with the previous results obtained by Naz et al. (2020) and Moser (2015). This result suggests that attitude can be modified by social sustainability awareness and environmental sustainability awareness, but it will not immediately inspire consumers to buy green items. In other words, young and educated consumers' attitudes toward environmentally friendly items do not necessarily influence their green purchasing behavior. Therefore, the mediating role of green purchase intention between attitude and green purchase behavior was investigated. The findings revealed that green purchase intention fully mediates the relationship between attitude and green purchase behavior, also between perceived behavioral control

and green purchase behavior. The mediating role of green purchase intention is supported by Yu et al. (2021).

The results showed that subjective norms and willingness to pay positively influence the green purchase behavior of Indian consumers and their relationship is positively mediated by green purchase intention as well. The cost of products and services is one of the most important elements influencing customer behavior. Subjective norms and willingness to pay were shown to be the most powerful factors influencing consumer green buying behavior in this study. Furthermore, 70 percent of respondents indicated that they would be willing to pay more if the products' environmental benefits were assured. Moser (2015) found similar results, stating that willingness to pay is the best predictor of consumer green purchase behavior. Our findings are consistent with earlier research undertaken in both developing and industrialized countries (Bilan et al., 2020; Nekomahmud et al., 2020).

The findings of this study imply that when purchasing specific goods and services, price matters a lot. Consumers are willing to pay a higher premium if the product is guaranteed to be environmentally friendly. This survey demonstrates that these consumers are willing to modify their shopping habits and will prefer green items to standard products. They said they feel good when they buy green products, but they aren't driven when the green product's price is excessively high in comparison to its non-green counterpart. These customers are willing to pay a premium for businesses and organizations that are committed to environmental sustainability.

Furthermore, the results of this study depicted that attitude, subjective norms, perceived behavioral control, and willingness to pay positively influence the green purchase intention of consumers. However, attitude and willingness to pay are the strongest predictors of green purchase intention than perceived behavioral control and subjective norms. Hence, it strongly supports the addition of willingness to pay to constructs in the previous TPB framework to examine the purchase intention and purchase behavior of the consumers towards sustainable products. The findings of Jaiswal and Kant (2018) were validated, and they also stated that green purchase intention is a fundamental and powerful predictor of green purchasing behavior. As a result, customers' intentions to buy green items are more significant than their stated attitudes. In other words, if customers plan to behave in a certain way, their intentions will be reflected in their purchasing decisions. Also, to transform attitude into actual purchasing behavior, green purchase intention can play a significant mediating role.

Based on the results obtained and discussion, it is concluded that the additional constructs in the theory of planned behavior successfully analyzed and validated. Hence, the model suggested in this study

explains the attitude, green purchase intention, and green purchase behavior in the light of environmental sustainability awareness, social sustainability awareness, willingness to pay, subjective norms and perceived behavioral control.

3.5 New Scientific Results

Based on the research data, results, and discussion, this study provides the new scientific results. These results can be used as a framework for future studies and to develop the research based on used analytical approach and additional constructs in the model.

1. Major theoretical contribution of this study is developing a validated research model which extended the theory of planned behavior by including additional constructs in the original model of the theory. As it was discussed above that many scholars reported criticism against the theory of planned behavior that it is not sufficient to analyze the behavior of a consumer and require more variables to examine the actual behavior. Also, the founder of the theory reported that extension of the theory and adding variables should be done vigilantly and the final model must be validated through various analytical approaches used in this study. Hence, this study provided a successful extension of the theory of planned behavior.
2. This study analyzed examined the environmentally friendly behavior of the respondents by examining the degree of sustainable habits they follow in their day-to-day tasks. The majority of the respondents showed that they are engaged in creating sustainable lifestyle by following sustainable habits and are regarded as environmentalists. This contribution showed how much percentage of Indian consumers are aware of their personal responsibility towards environment and can be termed as environmentalists.
3. The impact of socio-demographic variables on sustainable habits was assessed, and the results showed that female consumers are more engaged in sustainable habits than male respondents. It can be concluded that female consumers are more environmentally aware and act accordingly in a more sustainable way. In addition, the findings showed that age and education had a significant positive influence on sustainable habits, but income level do not influence habits of the consumers. This means that higher education level and young consumers are more likely to follow sustainable habits in their life. This is the major contribution of this study, as none of the study analyzed the environmentalist behavior of the consumers on the basis of socio-demographic variables in Indian context.

4. Another most important and new scientific result drawn from this study is the addition of the variables like social sustainability awareness and environmental sustainability awareness. This is the first study which added these two variables to assess its impact on the attitude of the consumers towards green products. The literature showed that there is a dearth of studies which focused on social dimension of sustainability and yet to analyze its impact in transforming the attitude of the consumers which will further enhance the purchase intention. The findings of this study revealed that social sustainability awareness and environmental sustainability awareness positively influence the attitude of the consumers towards green products. Previous studies had provided evidence that attitude pose significant influence on the green purchase intention of the consumers but there is a dearth of literature which focused on transforming attitude and how it could be done. Hence, it is proven from this study that sustainability awareness can transform the attitude of the consumer in a positive way which will further reflect in their purchase intention and purchase behavior.
5. Furthermore, the addition of the construct willingness to pay in the original TPB model provided evidence that to analyze the purchase behavior of the consumers assessing the price sensitivity is crucial. According to this study, around 70% of the consumers are ready to pay extra for the green products, however, 30% of the respondents denied that they will not pay extra amount for the green product. This means that consumers are price sensitive and their willingness to pay extra could be dependent on various factors like availability of products, products with additional value etc. In addition, willingness to pay came out to be the strongest factor in influencing green purchase intention and green purchase behavior of the consumers. Hence, companies or organizations must be vigilant towards establishing their prices for products and services which could be termed as environmentally friendly.
6. Another major contribution of this study was to test the variables of theory of planned behavior. The results showed that attitude and perceived behavioral control do not have direct positive influence on green purchase behavior. It refers that even if there is positive attitude or self-control of consumers towards green products, it does not reflect in their purchasing behavior. However, these relationships are fully mediated by green purchase intention. This full mediation of green purchase intention between attitude and green purchase behavior, and perceived behavior control and green purchase behavior is a distinctive result of this study.
7. Furthermore, the study also reflected the influence of socio-demographic variables on studied constructs. For instance, the results revealed that female respondents are more aware about

environmental sustainability and display more green purchase behavior than their male counterparts. Additionally, educational qualification influences the green purchase behavior which refer that more educated consumers display more environmentally friendly purchase behavior. Similarly, income level also influences green purchase intention and green purchase behavior of the consumers.

IV. Conclusion and Recommendations

4.1 Conclusion

Environmental issues have been discussed for a while, and governments and policymakers have implemented a number of steps to preserve the environmental system. Furthermore, initiatives i.e., as trash reducing plans and energy-preserving techniques are raising public awareness of the need to alter patterns of the consumption. The goal of this research was to learn more about the sustainability awareness, attitude and intention of consumers, consumption patterns and purchasing habits of Indian consumers. The impact of these factors on consumers' purchasing decisions was examined using the developing constructs and employing partial least square structural equation modelling. Another aim of this study was to extend the theory of planned behavior as it failed several times to examine the actual behavior of the consumers and addition of more variables in original TPB model is required to predict and examine the purchase intention and purchase behavior.

The study added several constructs to identify the green purchase behavior of the consumers such as social sustainability awareness, environmental sustainability awareness, willingness to pay, attitude, subjective norms, perceived behavioral control, green purchase intention. The findings of the study imply that social sustainability awareness and environmental sustainability awareness positively influence attitude of the consumers, which further impact on their purchase intention. Furthermore, it was found that attitude and perceived behavioral control do not directly influence green purchase behavior. These findings refer that degree of attitude towards certain product and self-control over purchasing actions doesn't necessarily transform into actual behavior. However, this relationship is positively mediated by green purchase intention. In this regard, attitude, and perceived behavioral control along with green purchase intention can positively influence the green purchase behavior of the consumers. It refers that only altering attitude and self-control is not sufficient but developing intention with positive attitude will actually transform into certain behavior.

In addition, willingness to pay and subjective norms have a substantial and positive effect on the intent of buying green products and green purchase behavior. The willingness to pay and subjective norms came out to be the strongest factor in this study that influence green purchase behavior. These considerations encourage them to purchase green items, but general consumption habits must be altered to achieve a more sustainable future. Young generation is curious to change their habits based on the available choices between green and conventional products, according to the current study. These consumers have expressed strong and positive attitudes toward environmentally friendly items, with the majority stating that they would be willing to buy green equivalents for a product. Most

customers indicated they would be proud of themselves if they acted in an environmentally sustainable manner.

In consideration of the novelty of the study, this research will be one of the pioneering works which will be considered as a framework for future research works. Moreover, the extended and developed model based on theory of planned behavior will provide insights into several variables which facilitate in examining green purchase intention and green purchase behavior. The findings will assist future researchers to develop their scientific research and help policymakers to alter their strategies for promoting and selling green products.

4.2 Recommendations and implications

Our research findings can be utilized to develop green marketing policies. The outcomes of this research show the effective information regarding the companies/firms and products that are guaranteed to be ecologically friendly motivates young university students to modify their lifestyle. Around 80 percent of respondents said they have significant social and environmental awareness that influences their attitude and shopping decisions when it comes to environmentally friendly products. As a result, officials and the government should take steps to reach out to a greater populace with environmental messages. Governments should develop communication strategies that will aid in the dissemination of related information on social and ecological issues, as well as direct messages to the audience about the benefits of their products in addressing these issues. Indian consumers can become environmentally conscious consumers if they are made aware of the eco-friendly alternatives to traditional products.

Furthermore, the willingness to pay was identified as the most powerful element influencing green purchase behavior, with 70 percent of consumers ready to pay more for green items. This discovery will aid green product manufacturers in evaluating their pricing plans in light of the actions of customers. Furthermore, several customers are sensitive to the prices and will not pay more for eco-friendly alternatives; this should be considered by dealers and producers. However, they are ready to spend a higher price for environmentally friendly goods and to back the organizations or industries that profess to be environmentally responsible. In this situation, dealers or policymakers should highlight the product's pricing in order to encourage consumers to buy green. Furthermore, organizations and firms should think about the cost and availability of green products to ensure that they are reasonable and accessible to the target market.

The study's practical outcomes suggest that enterprises and firms striving toward social and ecological sustainability can aim clients, giving them a better response related to their products, providing social and environmental benefits, and assuring them of their accessibility. Green buying intentions, willingness to pay and subjective norms have all been identified as significant determinants of green purchase behavior. As a result, businesses should make substantial efforts to ensure that such products are readily available and distributed to consumers. Because social and environmental awareness influences green purchasing decisions, marketing plans and advertisements should include ecological problems and product benefits.

The findings of this research can be used to design a green marketing strategy. This study's findings may prompt environmentally conscious marketing and advertising tactics to raise consumer awareness. They can assist policymakers in the establishment of marketing campaigns to encourage green purchasing behavior. Because of their concern about environmental damage, consumers will buy more green items with the support of such programs. Green brand positioning has a big impact on green buying behavior since it can increase a consumer's desire to acquire green products. Governments could raise consumer knowledge of environmental issues by producing films about real-world challenges and providing suggestions for decreasing environmental damage.

Furthermore, intentions and attitudes do not necessarily correspond to actual purchases, and when it comes to pricing considerations, consumers typically choose low-cost products. This study shed light on young people's attitudes regarding green products and their willingness to change their purchase habits. The research will assist green enterprises and companies in India in revising their marketing strategy when targeting youthful consumers. Similarly, the study advises that marketing tactics should be developed in such a way that they will increase customer education and awareness, as well as present all relevant information about the products' benefits and pricing, as well as how they will help to solve environmental concerns.

Researchers and academicians would be able to use the findings of this study to advance their research on the GPB of Indian consumers. Because this study solely focuses on young consumers, more research can be done to assess the GPB of the older population. This project will develop a theoretical model that may be applied to future research using various approaches. In the future, our findings will prompt comparison studies between India and other Asian or European countries.

Future research in this subject will be aided by this study, which will focus on construct construction, communicative application of factors, and cross-country research. It will contribute to closing the

study gap in this field, as there have been few studies undertaken in India. It will also encourage researchers to do study to better understand consumer eco-friendly habits. The model of research used in this research will offer a theoretical background to plant the future research accordingly to add new communicative concepts and to extend the theory by providing novel results of additional variables. In addition, it will deliver better awareness into customers' behavior by the addition of constructs like social and environmental sustainability awareness, green purchase intention and willingness to pay to understand the green purchase behavior. This research will lead to the better consideration of these customers among academicians and marketers.

4.3 Limitations and future research directions

As every study or research is bound to have some limitations, so this study also realized some limitations. For instance, the study sample might not be a best representative of the total population of the country under study as India is a big country. So, future studies can be conducted by taking into consideration other parts of the country as well. Apart from this, a comparative study could be conducted for instance, between Asian or European countries. Due to lack of resources and time, and restrictions faced by the researcher because of covid-19 pandemic, this study could not involve comparative study between the countries. Hence, comparative studies between countries can be done using different statistical approach for instance multi group analysis. In addition, other constructs or factors like cultural adaptation, religious inclination, or political pressure could be added in the future studies to identify its role in sustainable consumption behavior of consumers. Furthermore, several other theories like theory of reasoned action, attitude-intention-behavior model can be employed to reach the desired objectives.

V. Summary

The continual expansion of economies with a rising number of businesses, enterprises, and corporations has resulted in environmental degradation, which has been the cause of climate change and global warming in recent decades. Subsequently, humans have acted in ways that have had a harmful influence on the environment and ecology. The earth's temperature and climate have been impacted by growing levels of production and consumption, the burning of fossil fuels, greater industrialization, deforestation, and the increase in the number of automobiles.

Businesses are being established all over the world in order to protect natural resources to satisfy the demands of future generations. The realization of human thought towards nature was brought about by the constant fluctuation in natural resources and their abuse. This awareness leads to the development of certain consumption habits among humans, as well as a rise in green purchasing behavior. Green purchasing behavior refers to the consumption and usage of items that have a low environmental impact. To lessen the direct or indirect influence on environmental deterioration, it is vital to create environmentally conscious behavior among individuals, such as purchasing green items.

Therefore, this study was conducted to examine the factors that affect the green purchasing behavior of consumers. Another major aim of this study was to extend the theory of planned behavior. Since long the theory of planned behavior has been used by various scholars in assessing the behavior and intention of the consumers. However, there is a crucial criticism towards this theory as some researchers proven its insufficient adaptability because of lesser number of constructs to analyze the behavior and recommended addition of validated constructs in the model.

Hence, this study added three new variables namely social sustainability awareness, environmental sustainability awareness, willingness to pay along with previous constructs of the theory such as attitude, subjective norms, perceived behavioral control, and green purchase intention to assess the purchase behavior of consumers towards green products.

The data was collected from Indian consumers and analyzed by adopting PLS-SEM using SmartPLS. The model was tested and validated. The findings showed that social sustainability awareness and environmental sustainability awareness positively influence the attitude of the consumers which further effects positively their purchase intention. It was proven that green purchase intention showed full mediation effect between attitude and green purchase behavior. Similarly, willingness to pay pose significant positive impact on green purchase intention and purchase behavior.

Furthermore, the adoption of sustainable habits among consumers were assessed and the impact of socio-demographic factors on sustainable habits was examined. The results revealed that female respondents are more inclined towards sustainable habits adoption in their day-to-day life.

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- [1] **Naz, F.**, Oláh, J., Vasile, D., & Magda, R. (2020). Green Purchase Behavior of University Students in Hungary: An Empirical Study. *Sustainability*, 12(23), 10077. **SCOPUS Q1, WoS SSCI.**
- [2] **Naz, F.**, Magda, R. (2019). Indian Consumer's Purchasing Behaviour towards Eco-Friendly Products. *Journal of Management*, 35(2), pp. 145-151.
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- [11] **Naz, F.**, Kumar, A., Majumdar, A., & Agrawal, R. (2021). Is artificial intelligence an enabler of supply chain resiliency post COVID-19? An exploratory state-of-the-art review for future research. *Operations Management Research*, 1-21. **Springer, SCOPUS Q1, ABDC C Ranked.**

- [12] Bhandari, N., Garza-Reyes, J. A., Rocha-Lona, L., Kumar, A., **Naz, F.**, & Joshi, R. (2022). Barriers to sustainable sourcing in the apparel and fashion luxury industry. *Sustainable Production and Consumption*, 31, 220-235. **Elsevier, SCOPUS Q1.**
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