



## RESEARCH ARTICLE

### GREEN PRODUCTS BUYER BEHAVIOR – TOWARDS ENVIRONMENTAL SUSTAINABILITY

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#### ARTICLE INFO

##### Article History:

Received 18<sup>th</sup> December, 2023

Received in revised form

17<sup>th</sup> January, 2024

Accepted 20<sup>th</sup> February, 2024

Published online 28<sup>th</sup> March, 2024

##### Key words:

Green Products, Environmental Sustainability, Carbon Emission, Environmental Concern, Green Attitude

#### ABSTRACT

Environmental sustainability is a major action plan that acknowledges the culture and values of nature, the importance of preserving natural landscape and ecosystems for the identity and wellbeing of communities. A critical need for sustainability lies in the increasing affluence and growing consumption of consumer goods in the form of electronic appliances, automobiles, FMCG products, fast food restaurants that provide non-vegetarian food apart from consumerism. This paper aims to develop a conceptual model through review of literature to identify some of the drivers of green products and how these are currently being perceived by the consumers. An appraisal of the model will help to design a more parsimonious model to identify the core of the variables among environmental concern, health and safety concern, Government policies and eco labeling, green attitude among others that drive action. This will help marketers and businesses to better their strategies to encourage Green Product adoption among customers and contribute to Environmental Sustainability of the community.

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## INTRODUCTION

“We are living on this planet as if we had another one to go to.”

**Terry Swearingen, Nurse & Winner of Goldman Environmental Prize in 1997:** Environmental sustainability is a cry for protection of our human society to act immediately in preserving our most valuable and scarce resources like clean air, water and wildlife for the several generations that will inhabit our planet earth. The living beings should coexist with the non living beings like our trees, oceans, mountains, lakes, rivers, wildlife, aquatic life and more. This connection is at the foundation of environmental sustainability and calls for a committed action and regulatory framework to address the challenges it presents in the current day scenario. As a matter of fact, environmental sustainability is a crucial aspect that encompasses various fields, including economics, social justice, environmental science, business management, policies and regulations (Caliskan 2015). Environmental Sustainability has been attributed to the responsible and efficient use of natural resources and the preservation of ecosystems to ensure their long-term viability. It involves minimizing the impact on the environment by reducing pollution and waste, promoting

conservation practices and adopting renewable energy sources by implementing environmental sustainability practices, whereby we can reduce our carbon footprints to protect and preserve our planet for future generations.

**Need for Environmental Sustainability :** Environmental Sustainability is crucial for several reasons, as it encompasses the responsible use and conservation of natural resources to ensure the wellbeing of current and future generations. It helps to balance Earth's ecosystem, safeguarding essential services such as clean air, water purification and climate regulation. Environmental sustainability acknowledges the culture and values of nature, the importance of preserving natural landscape and ecosystems for the identity and wellbeing of communities. A major need for sustainability lies in the increasing affluence and growing consumption of consumer goods in the form of electronic appliances, automobiles, FMCG products, fast food restaurants that provide non-vegetarian food apart from consumerism. This actually results in consumers desiring to own and replace goods and brands not because of malfunctioning but because of brand image, status and for the simple reason to be trendy. This is indeed a big social evil that breeds practices that endangers sustainable living on our planet earth by increasing greenhouse gases that cause erratic climate changes. This is an uncontrollable phenomena and is also in conflict with moral and ethical purchases. This is also affecting our environment through increasing carbon emissions and resource depletion.

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Our modern economy thus calls for environmentally sustainable practices like moving from mass production to mass customisation to tailor made products for specific customer profiles are indeed optimizing the use of resources and thus the environmental impact of production. All this has awakened the creation and demand for green products that can minimize environmental pollution and safeguard our planet earth. These products are made by using environmentally friendly materials, reduced resource consumption and minimal ecological impact to preserve ecosystems. Consumers increasingly prioritize environmentally friendly options, businesses are incentivized to adopt more sustainable production processes, reducing waste, emissions and overall environmental impact. So overall it preserves the Planet's health and wellbeing of current and future generations and addresses interconnected challenges. It requires a collective commitment to be responsible for sustainable practices across all stakeholders to the society. Past researchers suggest that consumers' environmental knowledge and consciousness play an important role in shaping their positive attitude towards green products (Gong S. et al., 2021). In today's society, Environmental Sustainability has become a pressing concern and also consumers are increasingly aware of the impact of their purchasing choices on the environment and are actively seeking out greener alternatives. Further if environmental sustainability is not prioritized and followed, the world is likely to face severe and far-reaching consequences. Ecosystems may collapse, endanger biodiversity and disrupt the delicate balance that sustains life on Earth.

The consequences of not following sustainable practices is also identified as impacting human society and the circular economy it depends on. Water scarcity, soil degradation and air pollution could compromise the health and wellbeing of communities. Extreme weather events, rising sea levels and disruptions in food production may trigger mass migrations and geopolitical conflicts over dwindling resources. Failing to embrace environmental sustainability not only endangers the health of our planet but also undermines the resilience of human societies, posing a threat to the very foundation of our global community. Thus adoption of sustainability, the future of our planet and ensuring a habitable world for generations to come is a major area to be researched and solved upon with specific tailor made solutions that needs to be developed and implemented. In this regard this paper tries to identify consumer purchase behavior towards green consumer products. This will enable us to understand the mindset of the consumers in considering the various variables that direct them towards purchase of these green products. Hence a review of literature will be undertaken to identify some of the drivers of green products and how these are currently being perceived by the consumers. An appraisal of these variables will help marketers and businesses to better their strategies to encourage Green Product adoption among customers and contribute to Environmental Sustainability of the community.

## LITERATURE REVIEW

Green Products are designed and manufactured using sustainable practices such as reducing energy consumption, minimizing waste and using renewable resources (Oliver, 2013). Overall, Green Products are essential components in the journey towards environmental sustainability (Wei et al, 2018).

Their impacts go beyond just reducing environmental damage, they also influence consumer behavior, drive innovation and contribution to the conservation of resources. As organizations continue to prioritize sustainability, the role of Green Products will only become more significant in achieving a balance between environmental responsibility and profitability ( Janiszek 2018).

**Carbon Emission and Sustainability through Green Products :** A critical factor that steers the discussion in this paper is the correlation between carbon emissions lowering environmental sustainability in a developing country like India. Although carbon emission is the highest in more developed nations of the world (USA with 24.8% and followed by China with 14.8%) than developing countries like India that stands at 3.4%, it is a cause of concern as greenhouse gasses (carbon emission) may contribute to the climate change and will have intolerable impacts on a nation like India than its impact on developed nations whose emission levels are more. India is experiencing a host of changes in this decade like increased temperature, heavy rainfall causing floods, increasing air pollution affecting our productivity and economic growth rates. A report published by Japan based Research Institute for Humanity and Nature (2021) has estimated the average Indian carbon footprint to be 0.19 tonne/capita among the poor and 1.32 tonne among the rich. Once again it is seen that the rich contribute to the emissions but the crisis is faced by the poor in terms of inflation, hunger, heat wave, flood and the like. A detailed study has revealed that electricity and food constitute the biggest contributor to greenhouse gas emission across various socio-economic groups in our country. This was followed by agriculture, livestock and increasing preference to non vegetarian meals. This then calls for a drastic change in the production setup in our country to favor non fossil fuels but also a shift in the consumer behavior towards green products. This means one needs to study the values, appeals that are deep seated in the consumer mindset and then strategize to shift behavior for green products. Also, the large informal economy accounts for the production and consumption of consumer goods, and hence there are gaps in understanding the green buyer behavior to reduce our country's carbon footprint.

**Buyer Behavior towards Green Products :** The green attitude of consumers is increasingly on the rise as they are aware of the green product benefits and how it can reduce environmental issues and the impact on the planet. Hence they seek the information about green products and are concerned about their environmental footprint and also many consumers hold strong values and beliefs regarding sustainability and the environment. They prioritize purchasing products that align with their values, such as those made from recycled materials, organic ingredients, or eco-friendly practices.

**Factors Influencing Consumers to go for Green Products**  
**Environmental Concern:** Environmental concern refers to the awareness about the impact of human activities on the environment (Anja Kollmuss, 2002). It involves recognizing the importance of protecting and preserving the natural world, as well as taking action to address environmental issues such as pollution, deforestation, climate change and loss of biodiversity. Environmental concern is crucial for promoting sustainable practices and ensuring the well-being of both present and future generations

**Green Attitude towards Green Products:** Green Attitude towards green products refers to the positive and supportive mindset individuals have towards environmentally friendly and sustainable products. It reflects a willingness to choose and support products that have minimal negative impact on the environment throughout their lifecycle (Biswas et al. 2019). Green attitudes are characterized by a concern for the environment, a desire to protect natural resources, and belief in the importance of sustainable consumption.

**Green Knowledge and Awareness:** Green knowledge and awareness refer to the understanding and consciousness individuals have about environmental issues, sustainability, and importance of taking action to protect the environment. The study by Chen and Chen (2013). They conducted a survey to assess the level of environmental knowledge and awareness among university students in Taiwan, the study discovered that higher levels of environmental knowledge were associated with greater environmental awareness and pro-environmental behavior.

**Health and Safety Concerns:** The consideration of potential risks and hazards to human health and well-being associated with the use of environmentally friendly and sustainable products. It involves assessing the safety and health implications of green products, such as their ingredients, manufacturing processes and disposal methods. The relationship between healthy and safety concerns and green product behavior is by Kim and Choi (2019). The study investigated the influence of perceived health risk and perceived safety on consumer's intention to purchase green products. The findings revealed that consumers' concerns about the health risks associated with conventional products and their perception of the safety of green products positively influenced their intention to purchase green products.

**Green Certification and Eco-Labels:** These methods used to identify and certify products and services that meet specific environmental standards and criteria. (APEDA) Agricultural & Processed Food Products Export Development Authority, (BEEE)- Bureau of Energy Efficiency for Refrigerators, Air Conditioners, LED Light and E- Waste Management for Electronic Products that carry E-Labels. These certifications and labels provide consumers with information about the environmental performance and sustainability of a product or service, helping them make more informed and environmentally conscious purchasing decisions.

A thorough review of the drivers of green product purchase helped to develop a conceptual model for this study. This conceptual model is built on some of the major factors influencing the consumers to go for the green products buying behavior which in turn will lead to Green product purchase Intention and green purchase decision. Moreover, it highlights how the purchase decision is measured from recommending and willingness of the buyer to buy green products.

## RESEARCH METHODOLOGY

This study is an exploratory study that aims to develop a conceptual model at the initial stage through relevant and exhaustive literature review. This will be used for conducting empirical study that would focus on collecting quantitative and

qualitative data to understand the dynamics of the purchase attitude of consumer goods towards green product purchase. Hence desk research of databases from various sources like Scencedirect, Ebsco, Francis & Taylor, Sage, JStor was done using keywords like green consumption, environmental sustainability, sustainability and green consumption, theory of planned behavior, theory of reasoned behavior, green marketing and other relevant search words to build upon the needed conceptual framework. The articles were categorized and researched upon.

## OBJECTIVES OF THE STUDY

The major objective of this study is to develop a conceptual model to study how the green marketing stimuli in the external environment as well the internal concern for environment impacts on their attitude leading to purchase decision. The conceptual model also identifies the various related behavioral control constructs that impede the directed behavior. The model also raises the necessary implications that the study can contribute to its stakeholders.

## DISCUSSION

### DEVELOPING OF THE CONCEPTUAL MODEL

Consumer buyer behavior models have been of immense help to the behavioral research scientists in order to explain the journey of the consumer right from need identification, acquisition of information, evaluation to forming purchase intention and purchase decision. Consumer behavior models in marketing delves into the psychological and social factors that influence purchasing decisions. In this context, it helps explain how individuals develop green knowledge, make green purchase intentions and engage in post-purchase behaviors. Many traditional and contemporary models exist to understand this journey. This paper has developed its model on the basis of Kotler's Black Box Model (BBM), which states that consumers in their journey to solve their unmet needs or problems embark on a journey to understand products and brands as to how they are very close in meeting their beliefs and satisfying their needs.

Green organizational culture is a theoretical concept with emphasis on organizations that have understood the increased power of communications from them that act as an external marketing stimuli and impacts on the consumers black box. A subset of societal theory, explores how individuals are shaped by and contribute to cultural norms, values, and collective consciousness. In the context of green purchasing behavior, the cultural theory lends emphasis on the societal and cultural factors that influence an individual's environmental concerns and their subsequent actions. It further pays attention to organizations catering to information for the consumers who are in various phases of their journey towards adoption of green products. There are consumers who are still unaware while some are aware and need to be taken to the next higher levels of green brand comprehension, attitude direction and action stages. Green culture refers to this collective action in favoring green products that is directed towards protection of the environment (Liu, 2020). This coincides with the contemporary consumer behavior model (BBM) in terms of the role of creating necessary marketing stimuli of green products

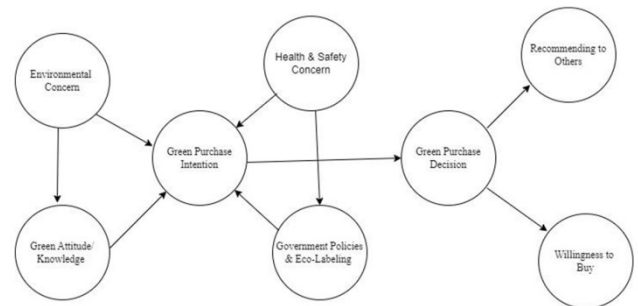
that would further build a green culture or reinforce purchase behavior contributing to the sustainable goals at large. Studies show gaps as to how such external communications have an impact on internal decisions of consumers in favoring green products in the case of most consumer goods. The Green Marketing Concept (GMC) is another popular terminology that grooms green organization culture and it encompasses a wider gamut of activities right from designing green products and aligning it with the firm's marketing mix. It is a more comprehensive strategy in connecting people, planet and profits to the sustainability goals of a safe environment for our future generations. Above all, it aims to satisfy the consumer needs through innovative methods that balance environmental and ecological issues with solutions that are renewable and environment friendly (Kiyak D., 2023).

The role Corporate Social Responsibility (CSR) is also acting as a self regulating mechanism in organizations focused on green products and green environment and cannot be ignored in developing countries like India, where governance is oriented towards Environment Sustainable Governance (ESG) practices. Globally organizations are embracing green environment concern and have redesigned their infrastructure in their pursuit and contribution to environment protection. The theory of reasoned action (TRA) is also identified by literature in contributing towards green product purchase while price and quality have been situational factors in some decision making cases (Fuentes and Fredriksson, 2016).

TRA is a powerful concept that has been a base for many research studies and it claims that a more directed behavior is observed when consumers consider an opinion as positive (attitude) and is a favored action for acceptance in their community (subjective norms) (Fishbein and Azjen, 1975). Studies in this direction have also shown in some situations positive attitude does not always lead to intended action and is influenced by some behavioral control or mediating factors like the availability of resources and or having the capacity to gain access to them. Like one may be concerned with adhering to recycling practices but a suitable collection system may not be available or one may want to reduce their carbon footprints by installing solar grids but may be too costly to afford. The Theory of Planned Behavior (TPB) helps to explore inaction situations with the concept of control- belief and perceived power (Ajzen and Fishbein 1980). Past studies show the immense role of TRA and TPA dynamics in understanding consumer behavior situations and then redesigning strategies towards directed goals like saving electricity, recycling biodegradable waste, car pooling, change in mode of travel, water conservation, single use plastic adoption, green attachment and more in our Indian context. These two theories also form the backbone of this study and help to evaluate how consumers respond to the marketing stimuli in the context of perceived behavior control factors. Based on the major theoretical background reviewed for the study a tentative conceptual model has been developed for this study. It thus explores the web of factors influencing the consumer's adoption of Green Products Buying Behavior, emphasizing the critical role of environmental concerns, Green Knowledge and awareness, Healthy and Safety Concerns and Green Certificate and Eco-Labeling. Here environmental concern serves as the catalyst, reflecting consumers heightened awareness of ecological issues and the urgency to address them.

Customers are thought to be environmentally concerned if they want to buy green alternatives, Customers who are ecological concerned are more inclined to purchase green items, according to (Nyborg et al 2006). This environmental concern is expected to propagate a chain reaction, fostering the development of Green Knowledge with Awareness and Green Purchase Intention. This Intention characterized by a conscious willingness to choose environmentally friendly products, acts as a pivotal bridge leading to the green purchase decision. Healthy and safety concerns add a layer of complexity, intertwining with environmental considerations and contributing to the overall formulation of green purchase intention and decision.

The presence of government certificates and eco-labelling adds a dimension of trust and credibility to the decision-making process. Consumers tend to place greater faith in products bearing official certifications, anticipating that these indicators reflect a commitment to sustainable and safe practices. As these factors collectively shape the green purchase decision and cause ripple effects in the form of green purchase behavior among individual consumers. This conceptual model illuminates the interconnectedness of various factors influencing consumers' Green Products Buying Behavior. It portrays a journey where environmental concern sparks awareness, knowledge fuels intention, and the purchase decision transforms into a catalyst for positive change within communities. Understanding these dynamics is crucial for business, policymakers and researchers to appraise areas of consumer knowledge, attitude and decision on environmental sustainability practices and for their promotion.



## Research Questions

The following questions are raised from the tentative model proposed for the study:

The influence of environmental concern and green attitude on green purchase intention, influence of health & safety concern and government policy on purchase intention, the influence of purchase intention on purchase decision which is evaluated from the study of recommending to others and willingness to buy. The significance of the relations can be evaluated by an empirical study to make inferences for decision making.

**IMPLICATIONS OF THE CONCEPTUAL MODEL THEORETICAL IMPLICATIONS TO STAKEHOLDERS :** This study will be able to provide more insights on societal theory, namely green cultural theory as to how it may serve as a marketing stimuli as an external factor and its ability to build a green attachment among consumers.

Further the application of TRA and TPA will enable us to understand in the context of green product purchase behavior how attitudes towards green products are shaped by subjective norms. The influence of behavioral control variables identified for the study will help stakeholders delineate the constructs and choose their roles in promoting green behavior. This will provide a win-win situation to all the concerned. It will bring forth its valuable contribution to researchers who are working to build new dimensions to the theory in the area of green purchase behavior, to the organizations as to how to design their communications and integrate it with their green marketing goals, to the policy makers to identify their role in reducing the impact of behavioral control variables through strict enforcements as well as providing incentives and to the society as to how they need to augment change in favor of a sustainable future for generations to come.

### SCOPE FOR FUTURE STUDY

First, a thorough understanding of the model can be achieved through extending the study with an empirical study in the area of green purchase behavior of consumer goods in general or in terms of types of consumer goods like convenience, shopping and specialty goods. Second, the study can be extended in defining the constructs with respect to consumer good purchases and identify/design the items to measure in the context of an Indian scenario. The study can also serve to assess an organization's ability in achieving sustainability and reengineer communications to create a strong impression in the minds of the consumers towards sustainability and consumption patterns when conducted for a specific category of goods or brand.

### CONCLUSION

Identification of facilitators and barriers in the journey of consumers in their purchase process of green products for different products can help promote environmental sustainability by collective consciousness among the large consumer base. This will enable understanding consumption patterns and use it as a tool to reengineer consumption patterns for achieving sustainable consumption practices for the protection of the environment as most of the disasters culminating in the environment pollution and hazards are due to unconscious consumption behavior of the human society with disregard for nature.

### REFERENCES

- Oliver, J. 2013. . Promoting Sustainability by Marketing Green Products to Non-Adopters. *Management & Prospective*, 30, 77-86. <https://doi.org/10.3917/g2000.303.0077>
- Janiszek 2018. Green Innovations and their own applications, 10.15611/pn.2018502.8. Research Papers of Wrocław University of Economics; <https://www.dbc.wroc.pl/dlibra/docmetadata?id=41087>
- Chen Y.S & Chen Y.S 2013. The Drivers of Green Brand Equity, Green Brand Image, Green Satisfaction, and Green Trust *Journal of Business Ethics* 1162. 215-231.
- Kim Y & Choi S M 2019. the effects of perceived health risk and perceived safety on consumers intention to purchase green products. *Sustainability* 113. 853.
- Biswas A. Roy M Das G. 2019. Green Attitude towards green products An Empirical study *Journal of Cleaner Production* 209,1474,1485
- Caliskan Hulya Kesici 2015. Technological Change and Economic Growth, *Procedia - Social and Behavioral Sciences*, Volume 195, Pages 649-654
- Nyborg K. Howrth R B. & Brekke K A. 2006. Green consumers and Publics Policy on Social Contingent moral motivation resource and energy economics 284. 351-366.
- Mei O J. ling K C & Piew T H. 2012. The antecedents of Green Purchase intention among Malaysian consumers *Asian Social Science* 813. 248-263. . <https://doi.org/10.5539/ass.v8n13p248>
- Kiyak D, Grigoliene R. 2023. Analysis of the Conceptual Frameworks of Green Marketing. *Sustainability*. 2023; 1521. :15630. <https://doi.org/10.3390/su152115630>
- Liu X, Lin KL. 2020. Green Organizational Culture, Corporate Social Responsibility Implementation, and Food Safety. *Front Psychol.* 2020 Nov 6;11:585435. doi: 10.3389/fpsyg.2020.585435. PMID: 33240175; PMCID: PMC7677508.
- Anja Kollmuss & Julian Agyeman 2002. Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior?, *Environmental Education Research*, 8:3, 239-260, DOI: 10.1080/13504620220145401
- Gong, S., Sheng, G., Peverelli, P. and Dai, J. 2021. "Green branding effects on consumer response: examining a brand stereotype-based mechanism", *Journal of Product & Brand Management*, Vol. 30 No. 7, pp. 1033-1046. <https://doi.org/10.1108/JPBM-03-2020-2785>

### WEBSITES

- <https://www.indiaspend.com/earthcheck/indias-biggest-spenders-cause-7-times-more-emissions-than-the-poor-715878#>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7677508/#B10>
- Eco label Index (n.d) Retrieved from <http://www.ecolabelindex.com/>
- <https://www.sciencedirect.com/topics/medicine-and-dentistry/theory-of-reasoned-action>

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