Major Project Report on

Understanding Consumer Attitudes and Purchase Behaviour Towards Sustainable Product

Submitted By

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CERTIFICATE:

This is to certify that Mr. Kapish Yadav (2k23/DMBA/056) has completed the research project titled "**Understanding Consumer Attitudes and Purchase Behaviour Towards Sustainable Product"** under the guidance of **Dr. Saurabh Agrawal** as a part of Master of Business Administration (MBA) curriculum Delhi School of Management, New Delhi.

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DECLARATION:

I hereby declare that the research project report titled **"Understanding Consumer Attitudes and Purchase Behaviour Towards Sustainable Product"** submitted by me to the Delhi School of Management (DSM), Delhi Technological University (DTU), Delhi in partial fulfilment of the requirement for the award of the degree of Master in Business Administration (MBA) is a record of bonafide project work carried out by me under the guidance of **Dr. Saurabh Agrawal**.

The information and data given in the project report is authentic to the best of my knowledge. I have put in efforts to complete this project successfully.

The work reported is not being submitted by me to any other University for the award of any other Degree, Diploma, and Fellowship program**.**

Kapish Yadav

Place:

Date:

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I express my deepest thanks to my professors and peers at Delhi School of Management, DTU, whose teachings and discussions have sharpened my skills, enabling me to successfully complete this internship and prepare this report.

Thank you all for your support and guidance.

With sincere appreciation,
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EXECUTIVE SUMMARY:

The rapid rise in global consumption has significantly contributed to economic growth, but it has also led to severe environmental degradation, including climate change and pollution. These environmental challenges have raised public concern and given rise to the sustainability movement aimed at protecting the planet.

This study explores the factors that influence consumers' decisions when purchasing sustainable products. It was found that demographic or social variables had minimal impact on consumer choices. Instead, the likelihood of purchasing such products was primarily influenced by customer satisfaction and the perceived attributes of the products themselves.

A survey of 74 respondents revealed a strong awareness of sustainable products and marketing practices, along with a high regard for environmental values. Consumers indicated that product characteristics—such as being free from harmful chemicals, produced under hygienic conditions, and offering recyclable or reusable packaging—play a critical role in shaping their purchase decisions.

The study also examined reasons why some consumers still opt for non-sustainable products. Regression analysis confirmed that general sustainable values, awareness of eco-friendly practices, and the perceived benefits of using sustainable products significantly and positively influence consumer preference for such items over conventional alternatives.

The findings offer valuable insights for marketers, emphasizing the importance of developing effective communication strategies to highlight the benefits and environmental impact of sustainable products.

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INTRODUCTION:

1.1 Background

In recent decades, rapid technological advancement and industrial expansion have greatly contributed to economic development but have simultaneously inflicted considerable harm on the environment. The pursuit of industrial growth has resulted in increased pollution levels, global warming, ozone layer depletion, and widespread climate change. These environmental crises have prompted an urgent global response toward sustainability and environmental conservation. In this context, sustainability refers to the responsible use of natural resources to ensure that ecological balance is maintained for future generations. Governments, international bodies, and private corporations have introduced a range of regulations, policies, and initiatives aimed at promoting sustainable practices across industries.

One of the most prominent outcomes of the global shift towards sustainability has been the development and promotion of sustainable products. These products are designed to minimize environmental impact throughout their lifecycle—from production to disposal. They typically use renewable or recyclable materials, involve energy-efficient processes, and produce minimal waste and toxic emissions. Examples of such products include biodegradable packaging, organic foods, solar-powered devices, electric vehicles, reusable household items, and eco-friendly personal care products. By consuming these products, individuals can contribute to environmental preservation while often enjoying improved health and safety benefits.

The emergence of sustainable products reflects a broader transformation in consumer behaviour and societal values. Consumers today are increasingly aware of the consequences of their consumption choices and are beginning to favour products that align with environmental and ethical values. Sustainable marketing—the strategy of promoting products based on their environmental and social benefits—has gained momentum as companies seek to respond to this growing consumer consciousness. Advertising campaigns now often highlight a product's green credentials, such as energy efficiency, reduced emissions, or ethical sourcing, in an effort to build consumer trust and brand loyalty.

Despite this encouraging shift, actual consumer behaviour does not always align with expressed environmental concerns. This inconsistency is commonly referred to as the "value-action gap" (Blake, 1999). It describes the divergence between consumers' environmental values or attitudes and their actual purchasing decisions. In many cases, while consumers may express concern for the environment and a willingness to adopt eco-friendly products, these intentions do not always translate into consistent purchasing behaviour. Several factors may contribute to this gap, including limited availability of sustainable products, higher costs, lack of information, distrust in green claims (greenwashing), or simply ingrained purchasing habits.

Research from Canada (Kennedy, Beckley, McFarlane, & Nadeau, 2009) illustrates that while consumers may accept the importance of sustainability, their actual uptake of sustainable products remains limited. Bridging this gap is a key challenge for marketers, policymakers, and environmental advocates. Effective strategies must not only raise awareness but also address the practical barriers that inhibit sustainable consumption.

A common strategy used by companies to promote their goods is to increase consumer knowledge of environmental concerns. This encourages consumers to move from conventional to sustainable products (Golkanda, 2013).

Moreover, consumer awareness and attitudes toward sustainable products vary significantly across geographic regions, socio-economic classes, and demographic groups. People in developed nations, who typically enjoy higher levels of education and income, often show greater concern for environmental issues than those in developing or underdeveloped countries. In many emerging economies like India, awareness is steadily growing, but affordability, accessibility, and competing priorities still influence consumer choices. Nevertheless, a growing segment of urban Indian consumers is becoming more environmentally conscious, creating a promising market for green products.

Companies across sectors are recognizing this trend and are incorporating sustainability into their core strategies—not just for compliance, but also to gain competitive advantage. They are investing in sustainable R&D, eco-labeling, carbon offsetting, and corporate social responsibility (CSR) programs. Products such as energy-saving CFL bulbs, solar chargers, reusable jute bags, bamboo toothbrushes, and organic skincare are increasingly visible in the Indian market. Such offerings are not only good for the environment but also appeal to ethically minded consumers who are willing to pay a premium for sustainable value.

1.1.1 Meaning of sustainable products

Products that use sustainable technology and don't harm the environment in any manner are considered sustainable. Fair growth and resource preservation depend on the development of eco-friendly products and practices. In marketing and sustainability, the terms "environmentally friendly," "environmentally conscious," or "eco-friendly" (also called "nature- friendly and sustainable") refer to goods and services, policies, laws, and regulations that make the claim that their negative effects on the environment or ecosystems are minimized, non-existent, or reduced.

The phrase "eco-friendly" is used to characterize environmentally favourable actions. The phrase "ecologically," "environmentally," or "sustainable" is a shortened version of these terms, which are used to characterize comparable behaviours. Eco-friendly activities can range from developing products that are made with the environment in mind to altering one's lifestyle in a way that is meant to help the environment. Several examples of products that are eco-friendly are: TV manufacturers have been actively attempting to develop energy-efficient televisions for a time now. Nearly all of the news inventory is usually ENERGY STAR certified, which is a testament to a retailer's commitment to sustainability and energy conservation. New models continue to function effectively with a decreasing amount of power consumption, which is good for the environment and your pocketbook. This is important since, in a typical home, viewing television is one of the devices that is used the most, so finding ways to lower its energy usage is invaluable.

Reducing your overall energy use can help you minimize the harm you cause to the environment. An excellent place to start would be to swap out your incandescent lights for LED ones. LED lighting will lengthen the life of your bulb and boost its efficiency while maintaining high-quality illumination. LED lights emit almost no hazardous UV emissions and contain no poisonous chemicals. More and more houses are embracing the technology every

day as it spreads widely. The greatest revelation regarding fluorescent light bulbs is their superior performance in comparison to their traditional counterparts.

One of the best examples of the solar panel industry's rapid growth is solar thermal water heaters. They perform better than conventional models in nearly every way. Their reliance on solar energy results in higher overall effectiveness rates, longer unit lifespans, and higher particle emissions. Furthermore, a solar water heater may lower energy consumption by up to 70% which will assist to somewhat lower the monthly power expenditure.

Some cases are now designed to be powered by sunlight—just like rooftop solar panels that capture light and turn it into energy for homes. It wasn't long before this same idea was scaled down to charge smaller devices. A great example is the Voltaic Creator Solar Laptop Charger, which uses high-quality solar cells built into a durable, weather-resistant case. Inside, efficient batteries store the solar energy, ready to power up nearly all your favourite gadgets. And as a bonus, the case still looks sleek and stylish, even with the tech built right in.

Verification of the Environment via Mobile Apps Businesses are scrambling to figure out how to portray themselves as eco-friendly to a consumer base that is fixated on sustainable products. While several organizations have official third-party endorsements attesting to their sustainable efforts, many other businesses are passing themselves off as environmentally conscious in an attempt to increase sales and enhance their brand, Get the official Consumer Reports app on your phone for free. By consulting the listings of items with the Eco Label certification, consumers may be able to prevent themselves from falling for false marketing. With Eco Label's guidance, you can identify real environmentally friendly items while perusing the aisles. Eco Label offers a smooth and user-friendly interface.

ecologically favourable The document The shredder machinery It should go without saying that confidential documents and financial information should never be thrown away. The market for paper shredder gadgets was created in response to this requirement. Various hand-powered shredders are now readily accessible and provide a useful, environmentally friendly option. The shredding mechanism just requires users to twist their palms to begin. These portable, very easy- to-use, environmentally friendly shredders also provide a low-tech means of encouraging energy.
The dryer balls are just big rubber objects with rises on the floor: they're a simple but effective idea that has finally started to gain mainstream recognition. They serve to separate the clothing in order to hasten drying and preserve softness. Dryer balls can be reused, which makes traditional dryer sheets unnecessary and lets you save money. They occasionally can be quite noisy, which is the only real drawback.

1.1.2 Characteristics of sustainable products

Sustainable products are defined not only by their end-use but also by how they are designed, sourced, manufactured, packaged, used, and disposed of. Their core objective is to minimize environmental impact and maximize the responsible use of resources, aligning with the principles of environmental, social, and economic sustainability. These products consider their entire life cycle—from raw material extraction to production, distribution, consumption, and final disposal or recycling.

Some of the most prominent characteristics of sustainable products include:

- Resource Efficiency: Sustainable products are developed with a strong emphasis on reducing the consumption of energy, water, and raw materials. The production processes often utilize renewable energy sources and aim to minimize emissions and waste generation.

- Non-Toxic Materials: They are made using non-hazardous, biodegradable, and safe materials that do not pollute the environment or pose health risks to users. Toxic substances like lead, mercury, phthalates, and formaldehyde are strictly avoided.

- Certifications from Recognized Agencies: To ensure credibility and build consumer trust, many sustainable products are certified by trusted third-party organizations. Some well-known certifications include:

- Energy Star (for energy-efficient electronics and appliances)

- Forest Stewardship Council (FSC) (for sustainably sourced wood and paper products)

- USDA Organic, EcoCert, EPEAT, Cradle to Cradle, etc.

- Biodegradable, Recyclable, and Reusable Materials: Sustainable products are designed for circular use. They can decompose naturally without harming the environment or can be reused or recycled to avoid landfilling and incineration.

- Ethical Sourcing and Cruelty-Free Practices: Many sustainable products are not tested on animals and are produced without exploitation of labor. Ethical sourcing ensures that the raw materials come from responsible suppliers who follow humane, safe, and eco-conscious practices.

- Eco-Friendly Packaging: A defining characteristic of sustainable products is packaging that minimizes plastic use, is recyclable or compostable, and uses minimal ink or chemical dyes. Innovations such as refillable containers, bulk dispensers, and biodegradable wrapping are growing in popularity.

- Low Energy Consumption: Sustainable products aim to consume less energy during both their production and usage. For example, LED lights, solar panels, and energy-efficient appliances contribute to significant reductions in electricity usage, aligning with green energy goals.

- Locally Produced: Many sustainable products are made using locally sourced raw materials to reduce the carbon footprint associated with long-distance transportation. Local production also supports regional economies and reduces packaging waste.

Advantages of Sustainable Products

The increasing demand for sustainable products is not only driven by environmental concerns but also by the tangible benefits they offer to individuals, society, and businesses. These advantages encourage consumers to adopt eco-friendly alternatives over traditional options.

- Reduction of Pollution: One of the most significant benefits of sustainable products is their ability to drastically reduce pollution. By eliminating toxic materials, minimizing industrial waste, and decreasing the use of non-biodegradable components, these products help in curbing air, water, and soil pollution. Their use leads to cleaner ecosystems and healthier living conditions.

- Improved Personal Health: Sustainable products often avoid synthetic chemicals, heavy metals, artificial preservatives, and allergens. This results in safer, non-toxic alternatives for consumers—whether in the form of organic foods, natural cleaning products, or chemical-free personal care items. These products reduce the risk of chronic health issues, skin irritations, and respiratory problems caused by conventional chemical-laden products.

- Cost Efficiency and Long-Term Savings: Although the initial cost of sustainable products can sometimes be higher, they typically offer long-term savings. Energy-efficient appliances, for example, lower electricity bills, while durable products reduce the frequency of replacements. LED lights, solar panels, and reusable items all contribute to significant cost savings over time.

- Support for Ethical Practices: Sustainable products often align with fair trade, ethical labor, and community development values. By purchasing these items, consumers indirectly support better working conditions, fair wages, and corporate transparency.

- Enhancing Environmental Awareness: Choosing sustainable products fosters a sense of responsibility and environmental consciousness. It creates a ripple effect, influencing family, friends, and communities to adopt more eco-friendly habits and advocate for sustainability in everyday life.

- Corporate Social Responsibility and Brand Trust: From a business perspective, offering sustainable products enhances brand image, builds customer loyalty, and aligns with corporate social responsibility (CSR) objectives. Consumers increasingly favour brands that are environmentally and socially responsible, rewarding them with higher engagement and repeat purchases.

1.1.3 Major Initiatives

India, as a rapidly developing nation, faces unique environmental challenges stemming from industrialization, urbanization, and population growth. In response, the country has witnessed a growing movement toward environmental sustainability, supported by government initiatives, non-governmental organizations (NGOs), industry efforts, and public participation. These major initiatives aim to foster environmental protection, promote green innovation, and encourage the adoption of sustainable products among Indian consumers.

Numerous environmental organizations in India, such as the Centre for Science and Environment (CSE), TERI (The Energy and Resources Institute), and Greenpeace India, play a pivotal role in spreading awareness and driving eco-conscious behaviour. These organizations collaborate with the government, corporates, and civil society to design and implement policies, conduct research, and engage in advocacy for sustainable living and consumption.

One of the most significant contributors to the popularity of sustainable products in India is the increasing trend of eco-friendly advertising. As businesses begin to integrate environmental consciousness into their corporate strategies, they are also shifting their marketing approaches. Companies are now aligning their brand image with environmental responsibility, using advertisements to educate consumers about the environmental impact of their choices and to promote the benefits of eco-friendly alternatives.

Advertising campaigns across print, digital, television, and outdoor media now focus on themes like reducing plastic waste, conserving water and electricity, adopting renewable energy, and supporting cruelty-free products. These messages not only build a positive public image for brands but also act as tools for social change. For instance, many personal care brands in India now highlight "chemical-free," "plant-based," or "zero-waste packaging" features in their product campaigns—tapping into the growing consciousness of the urban, educated consumer.

Government-Led Initiatives Promoting Sustainability in India

To support the transition toward sustainability, the Indian government has launched several national programs and policy initiatives, including:

- Swachh Bharat Abhiyan (Clean India Mission): Launched in 2014, this campaign aims to promote cleanliness and proper waste management, indirectly encouraging eco-friendly product use such as biodegradable packaging and compostable sanitary products.

- National Action Plan on Climate Change (NAPCC): This policy outlines eight core missions, including the National Solar Mission, National Mission for Sustainable Habitat, and National Mission for Enhanced Energy Efficiency, which encourage sustainable production and consumption across sectors.

- FAME India Scheme (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles): This program promotes the adoption of electric vehicles (EVs) to reduce vehicular emissions and dependence on fossil fuels. This has resulted in the increased demand for sustainable mobility products.

- Plastic Waste Management Rules (2016, Amended 2022): These rules mandate Extended Producer Responsibility (EPR) for plastic packaging, encouraging manufacturers to adopt recyclable and biodegradable materials.

- BEE Star Labeling by the Bureau of Energy Efficiency: Products like air conditioners, refrigerators, and ceiling fans carry BEE star ratings that indicate their energy efficiency. These labels have become key decision-making tools for consumers seeking sustainable appliances.

Corporate and Industry-Led Initiatives

Indian companies, especially in sectors like FMCG, apparel, technology, and automotive, are also taking the lead in sustainability efforts:

- Tata Power Solar and Adani Green Energy are investing in large-scale renewable energy projects and solar-powered products for both commercial and domestic use.

- Hindustan Unilever, through its “Sustainable Living Plan,” aims to reduce the environmental footprint of its products by improving packaging sustainability, reducing greenhouse gas emissions, and promoting water-efficient products.

- ITC Limited has implemented initiatives like “Well-being Out of Waste (WOW)”, which promotes source segregation and recycling.

- E-commerce platforms such as Amazon India and Flipkart have introduced eco-friendly delivery initiatives, including electric delivery fleets and plastic-free packaging.

Community and Grassroots Movements

Numerous grassroots-level initiatives and start-ups in India are emerging as powerful change-makers:

- Bare Necessities, Beco, and Ecoware are some Indian start-ups offering zero-waste, plastic-free personal care and household products.

- Community-based movements like "Say No to Plastic," "Bring Your Own Bag (BYOB)," and zero-waste communities in cities like Pune, Bengaluru, and Auroville are actively influencing consumer habits.

- Educational campaigns in schools and colleges are instilling environmental values in young minds, thereby shaping the behaviour of future consumers.

1.1.4 Certifications

In the global movement toward environmental sustainability, eco-certifications play a critical role in guiding consumers, businesses, and policymakers in making informed decisions. These certifications act as reliable indicators that a product, service, or process meets specific environmental, social, and ethical standards. They also help consumers distinguish genuinely sustainable products from those making unsubstantiated or misleading green claims (a practice known as "greenwashing").

Certifications from globally recognized organizations promote transparency and credibility in sustainable markets. These endorsements not only influence consumer trust and purchase behaviour but also encourage manufacturers to adopt cleaner, more ethical production methods. Below are some of the most prominent sustainability certifications that have significantly impacted consumer awareness and green marketing globally, including in India:

1. Energy Star (EPA, USA)

   Purpose: The Energy Star certification is a U.S. Environmental Protection Agency (EPA) program designed to identify and promote energy-efficient products and practices.

   Launch: Introduced on March 15, 1992.

Scope: Applicable to a wide range of products including appliances, HVAC systems, computers, televisions, and buildings.

Impact: Products with this label use significantly less energy compared to standard models, helping to reduce greenhouse gas emissions and energy bills.

Significance: By promoting products that require less power without compromising performance, Energy Star supports a transition toward sustainable energy consumption and environmental conservation.

2. Forest Stewardship Council (FSC)

Purpose: FSC is a global, non-profit organization committed to the responsible management of the world's forests.

Launch: Founded in 1993.

Scope: Applies to forest-based products like wood, paper, furniture, and packaging.

Certification Standards: FSC-certified products must be harvested sustainably, without degrading forest ecosystems or violating the rights of indigenous communities.

Impact: The FSC label assures consumers that the wood or paper they are purchasing comes from ethically managed forests, supporting biodiversity, fair labour, and long-term forest health.

3. Green Seal Certification

Also known as: Sustainable Seal

Purpose: Green Seal certifies that a product, service, or facility adheres to rigorous environmental leadership standards.

Launch: Established in 1989 in the United States.

Scope: Covers a wide range of goods including cleaning products, paints, building materials, hospitality services, and personal care items.

Evaluation Process: Certification is based on a multi-step process including data review, label verification, marketing audit, and on-site inspections to confirm sustainability claims.

Impact: Promotes the use of products that reduce toxic exposure, minimize waste, and conserve energy and water throughout their life cycle.

4. USDA Organic Certification

   Issuing Body: United States Department of Agriculture (USDA)

   Purpose: To certify that agricultural and food products are grown and processed following strict federal guidelines addressing soil quality, animal raising practices, pest and weed control, and use of additives.

   Launch: Officially implemented in 2002.

   Scope: Applied to food, beverages, and personal care products containing organic ingredients.

   Standards: Prohibits the use of genetically modified organisms (GMOs), synthetic fertilizers, pesticides, and hormones.

   Impact: Consumers choosing USDA-certified products are assured of healthier, more environmentally responsible food systems, while farmers and manufacturers are encouraged to adopt more sustainable practices.

5. EPEAT (Electronic Product Environmental Assessment Tool)

   Purpose: Developed to help organizations and individuals identify environmentally preferable electronic products.

   Administered by: The Global Electronics Council (GEC).

   Scope: Focuses on computers, monitors, printers, and other electronics.

   Rating System: Products are evaluated against multiple sustainability criteria (e.g., energy efficiency, recyclability, use of harmful substances) and are rated as Gold, Silver, or Bronze.

   Impact: EPEAT-certified products help reduce e-waste, promote energy savings, and ensure the use of environmentally friendly materials and packaging.

Importance of Certifications in Consumer Decision-Making

- Transparency and Trust: Certifications act as a third-party guarantee, helping consumers trust the environmental claims made by brands.
- Market Differentiation: Products that carry verified labels stand out in the marketplace and are more likely to be preferred by environmentally conscious consumers.

- Legal and Regulatory Compliance: Many certifications align with national and international environmental laws, thus facilitating compliance for companies.
- Informed Choice: Consumers increasingly rely on certifications as a shortcut for sustainable decision-making, helping them make choices that align with their values.

Certifications in the Indian Context

While many of the certifications listed above are global, India also promotes its own eco-labels and green standards:

- Ecomark (BIS): Introduced by the Bureau of Indian Standards (BIS), Ecomark is India's own certification for environmentally friendly products, covering categories such as soaps, paper, paints, and packaging.
- GreenPro Certification (CII-GBC): This eco-label certifies products based on their environmental impact across their lifecycle, commonly used in green building materials and appliances.
- India Organic (APEDA): For food and agricultural products, this certification guarantees adherence to national organic production standards.

By understanding and recognizing these certifications, consumers are empowered to make responsible choices, reduce their environmental footprint, and contribute to the global sustainability movement. Certifications thus serve as a critical link between awareness and action, closing the gap between intention and sustainable purchasing behaviour.

1.2 Problem Statement

The rapid expansion of industrialization and consumption patterns, driven by population growth, urbanization, and technological advancements, has significantly accelerated environmental degradation. This includes rising levels of air and water pollution, global warming, depletion of natural resources, deforestation, and the accumulation of non-biodegradable waste. These growing ecological challenges have created an urgent need for sustainable development and environmentally responsible consumer behaviour.

In response, there has been a growing market for sustainable or eco-friendly products—those designed to minimize environmental impact, reduce waste, and promote long-term ecological balance. However, despite their availability and the awareness of environmental issues among the public, there exists a noticeable gap between consumers' expressed concern for the environment and their actual purchasing behaviours—a phenomenon widely referred to as the "attitude-behaviour gap" or "value-action gap".

Consumers often express a positive attitude towards sustainability and acknowledge the need to support green initiatives, yet this does not always translate into action in the marketplace.

Factors such as lack of awareness, perceived higher costs, limited availability, and skepticism about green claims can hinder the adoption of sustainable products.

This study seeks to understand what influences consumer purchasing decisions with respect to sustainable products. While some research suggests that demographic variables such as age, income, or education may not directly impact purchasing decisions, other psychological and situational factors—such as environmental awareness, perceived product quality, personal values, trust in certification labels, and satisfaction with previous purchases—can be significant influencers.

Understanding these behavioural patterns is crucial for marketers, businesses, and policymakers aiming to foster a more environmentally conscious society. The success of corporate sustainability initiatives and government-led green policies depends heavily on consumer participation. Thus, it becomes imperative to analyze how consumers perceive, evaluate, and respond to sustainable product offerings in order to formulate effective marketing strategies and policy interventions.

1.3 Objectives of the Study

The primary objective of this research is to explore and understand the attitudes, preferences, and purchase behaviour of consumers towards sustainable products. The specific objectives are as follows:

- To study consumer buying behaviour with respect to eco-friendly or sustainable products, and to identify patterns in their decision-making process.
- To assess the level of awareness and knowledge among consumers regarding sustainable products, environmental issues, and the implications of their consumption choices.
- To examine the internal factors (such as personal values, environmental consciousness, perceived benefits, satisfaction, lifestyle, and health awareness) that influence consumer purchase intentions.
- To examine the external factors (such as product price, availability, branding, eco-labels, peer influence, media exposure, and marketing communication) that affect the consumers' decision to buy sustainable products.
- To evaluate consumer perceptions of certification labels and their trust in claims made by green marketers and brands.
- To determine the barriers and challenges faced by consumers in purchasing sustainable products, such as cost, skepticism, limited product variety, or lack of information.
- To provide recommendations for marketers and policymakers on how to improve consumer adoption of sustainable products through better strategies in awareness-building, branding, and education.

1.4 Scope of the Study

The scope of this study encompasses an in-depth analysis of consumer behaviour related to the awareness, acceptance, and adoption of sustainable products. It focuses on understanding the psychological, social, economic, and cultural factors that drive or hinder consumers' willingness to choose eco-friendly alternatives over conventional ones.

This study includes a broad spectrum of sustainable product categories such as:

- Organic foods and beverages
- Biodegradable personal care products
- Energy-efficient home appliances
- Recyclable packaging and reusable household items
- Eco-friendly transportation solutions (e.g., hybrid and electric vehicles)
- Solar-powered devices and green construction materials

The research will target consumers within a specific age group or demographic profile (e.g., urban Indian consumers aged 18–35), who are more likely to be exposed to sustainability discourse through education, digital media, or urban lifestyles.

The study will also examine:

- Various stages of the consumer decision-making process—from problem recognition and information search to evaluation of alternatives, purchase decision, and post-purchase behaviour.
- The influence of media, education, social norms, and peer groups on eco-conscious buying habits.
- The impact of government policies, subsidies, eco-labeling, and green marketing strategies on shifting consumer preferences.

The findings of this study are expected to contribute to both academic literature and practical applications. They can help businesses enhance their green marketing strategies, assist policymakers in designing effective environmental campaigns, and empower consumers to make more informed, responsible choices.

Ultimately, the study seeks to bridge the gap between consumer awareness and action, facilitating the mainstream adoption of sustainable products and encouraging a collective movement toward a greener future.

LITERATURE REVIEW:

Furlow, N.E. (2009) In her article, Furlow, N.E. (2009) describes the state of the market, which is currently flooded with "sustainable products" that are blatantly dishonourable in the name of protecting the environment. In an effort to appeal to an uninformed audience. businesses frequently make claims that appear environmentally friendly but are occasionally also untrue and figuratively imprecise. As a result, "Sustainable washing" has spread throughout the industry. The problem with sustainable laundry is not just that it receives customers, but also that companies that adhere to their environmental commitments become less competitive if dishonest marketers continue to make environmental claims. Furthermore, the market will become so saturated with "sustainable" claims due to their overuse and misuse that the consumer may stop understanding how sustainable the product actually is. In the end, misleading environmental advertising will be bad for our environment as well as for people, companies, and the economy. As a result, environmental claims must be sincere, accurate, and consistent with the purpose of the organisation.

Ali, A., Khan, A.A., Ahmed, I. & Shahzad, W. (2011) In their analysis article, Ali, A., Khan, A.A., Ahmed, and Shahzad (2011) looked at Pakistani consumers' intentions to buy environmentally friendly goods. The main goal of this analysis material was to look into and investigate the suggested relationship between the criterion and predictor variables, specifically the unproven purchase angle (GPA) and unqualified intent to buy (GPI). The second involved looking at how the criterion variable (GPI intention) and the outcome variable (GPB), or beginner purchase behaviour, related to one another. Determining how perceived product value and quality (PPP&Q) impacted the alleviative effect was the third objective. The tests revealed that a person's criterion had a significant impact on his GPI in addition to the correlational statistic between criterion and GPI. Similar to how GPI and GPB are inextricably linked. According to the findings, consumers who indicate a desire to purchase an unfamiliar product are more likely to do so than consumers who express no desire to purchase.

According to Project Guru's (2010) study, India's adoption of environmentally friendly products is still in its infancy. Individuals, groups, and the government all have a duty to do more to spread the word about the advantages of sustainable products.

The Welling and Anupamaa S. Chavan (2010) study examined Sustainable marketing, which is not going to be a simple concept. In order to determine whether the plan is feasible, the company must first plan and then conduct research. Environmental marketing needs to mature as it is still in its infancy. Although implementing sustainable marketing might not be straightforward at first, it will unquestionably be advantageous for the business in the future.

According to **Dharmendra Mehta's (2011)** study, Indians are not only concerned with the environment but also with their health. Due to this mental paradigm shift, sustainable marketers

find Indian consumers to be appealing. The general public is now more receptive to and aware of sustainable marketing appeals.

Schultz and Zelezny (2000) Environmental concern attitudes, per Schultz and Zelezny (2000), "are rooted in a person's self-concept and the degree to which he perceives himself to be an integral part of the natural environment." Attitudes play a key role in behaviour prediction, behavioral intention, and the explanation of variations in individual behaviour. Customers who feel strongly about the environment will connect sustainable products to their daily activities, employment, and families. Due to higher manufacturing costs, high-quality raw material costs, and, to some extent, higher costs associated with obtaining an official eco-label for the products, sustainable products are more expensive. Demand and prices have an antagonistic relationship because price determines whether or not someone will buy something. The likelihood that a consumer will want to buy a product decreases with price. Customers are aware that choosing sustainable products over conventional ones is better for the environment, But consumers are price conscious when it comes about going sustainable because of the economic situation in developing countries. Higher priced goods may have less of an impact on consumers' decisions to buy in line with their values and attitudes. The cost will deter consumers from buying a sustainable product unless its quality is reliable and it is worthwhile to obtain.

Hansla (2008), Hansla (2008) asserts that although consumers may have favourable attitudes towards sustainable products, they might not be willing to pay more for a similar functioning item. According to Rezai, Mohamed, and Shamsudin (2011), consumers' attitudes towards buying organic vegetables were somewhat influenced by the price of those vegetables.

Saranya's 2017 According to Saranya's 2017 study, sustainable marketing primarily aims to encourage consumers to buy sustainable products. It is the duty of marketers to educate consumers about the advantages of sustainable products over non-sustainable alternatives.

Li, J., Hu, L., & Basheer, M.F. (2023): In a 2023 study published in Environmental Science and Pollution Research, Li, Hu, and Basheer looked into how sustainable marketing influences consumer behaviour in the sports industry. Their research showed that these eco-friendly marketing strategies don’t just affect how people buy—they also play a big role in raising environmental awareness. The team surveyed 532 people through an online questionnaire and used a method called PLS-SEM (Partial Least Squares Structural Equation Modeling) to analyse the data. Their findings revealed two key insights: first, that environmental awareness helps explain how sustainable marketing impacts consumer choices, and second, that a person’s knowledge about the environment strengthens the link between green marketing and environmental awareness.

Qalati, S.A., Barbosa, B., & Deshwal, P. (2024): In a comprehensive editorial for the journal Sustainability, Qalati, S.A., Barbosa, B., and Deshwal, P. (2024) discussed the development of sustainable marketing in both online and offline settings. They emphasized the changing dynamics of consumer behaviour in today's digitally driven market and the opportunities and challenges it presents for sustainable marketing. The authors highlighted the importance of understanding consumer behaviour and sustainable marketing practices in various contexts, especially in light of the COVID-19 pandemic's impact on online shopping behaviours

Thogersen (2004): (2004) Consulch Consumer behaviour towards sustainable products is significantly influenced by social norms and peer pressure. According to a Thooersen Thogersen (2004) (2004) study, consumers' perceptions of social norms and peer pressure have a big impact on whether or not they're willing to buy sustainable products. When consumers believe they are acting in a socially responsible manner and see their peers buying sustainable products, they are more likely to do the same.

A study by **Prashant Kumar and Bhimrao M. Ghodeswar (2015)** titled "Factors impacting consumers' sustainable product purchase choices " reveals that recent research on environmentally friendly consumer behaviour has concentrated on Asian markets. Although environmental awareness among Indian consumers has been documented in the literature, it is still unclear how they choose to spend their money on eco-friendly goods. Therefore, the goal of this essay is to investigate the variables influencing Indian consumers' decisions to buy sustainable products. The findings showed that the respondents were willing to support environmental protection, aware of their ecological duties, and inclined to look up details on environmentally friendly goods and learn more about them.

According to a **2011 study by Celine Michaud and Daniel Llerena** titled "Sustainable Consumer Behaviour: An Experimental Evaluation of Ability to Pay for Remanufactured Products," managing a product's days is now a crucial business concern. Remaking is one end-of-life option that may offer business benefits through material and energy savings. Beyond issues with industrial organisation, there is debate over the value of creating a sustainable marketing plan for remanufactured goods. Remanufactured good can be regarded as sustainable goods since their manufacturing process advantages the surroundings

Antecedents of environmentally conscious buying behaviour: a study of consumers in a developing country like India was conducted by **Aradhana Gandhi and Pratima Sheorey in 2019**. This study aims to investigate the factors that influence sustainable buyer choices in a developing nation like the nation of India. Data were gathered for an empirical study through an online survey. The questionnaire was completed by 437 respondents from seven Indian cities, ranging in age from 18 to 55. According to the study, government officials and marketers should inform the public about sustainability issues in order to increase the demand for sustainable goods.

Jing Li, Lifen Hu & Muhammad Farhan Basheer (2023): Published in 2023, this study explored how sustainable marketing and environmental awareness shape consumer behaviour in the sports industry. Researchers gathered responses from 532 participants and analysed the data using SmartPLS 4 software with a method called PLS-SEM. The results showed that eco-friendly marketing strategies have a positive impact—not only do they influence how consumers behave, but they also boost people's environmental awareness. Interestingly, the study also found that the more environmentally conscious someone is, the stronger the link between green marketing and their behaviour. Plus, people with higher environmental knowledge felt the impact of sustainable marketing even more strongly.

Sikandar Ali Qalati, Belem Barbosa, and Pankaj Deshwal (2024): In their editorial for the journal Sustainability, Qalati, Barbosa, and Deshwal (2024) examined the crucial nexus between consumer behaviour and sustainable marketing practices, particularly in online and offline settings. They discussed how the COVID-19 pandemic has transformed shopping behaviours and provided an opportunity for companies to develop sustainable marketing strategies.

RESEARCH METHODOLOGY:

Research methodology is a systematic framework that outlines how a research project is carried out, including the strategies, procedures, and tools used for data collection, analysis, and interpretation. This chapter details the methodological design adopted to investigate consumer attitudes and behaviours regarding sustainable product purchases.

3.1 Research Design

The study adopts a quantitative and exploratory research design to understand the behavioural patterns and attitudes of consumers towards sustainable products. Exploratory research is suitable for identifying key influencing factors, generating insights, and establishing potential relationships among variables in cases where there is limited prior research. It also helps in refining the research problem and formulating hypotheses for further investigation.

3.2 Population and Sample Size Determination

The target population for the study consists of consumers residing in India, primarily aged 20 years and above, who are involved in purchasing decisions. This demographic includes working professionals, university students, homemakers, and self-employed individuals. These segments are believed to be more aware and informed about their consumption choices, especially regarding sustainability.

The sample size chosen for this study is 74 respondents, selected through non-probability convenience sampling. This method was preferred due to time constraints and ease of data accessibility, especially via online platforms. Though convenience sampling limits generalizability, it is effective for exploratory research aimed at gaining preliminary insights.

3.3 Data Collection Method

Data was collected through a structured online questionnaire distributed via Google Forms. The questionnaire was designed to capture both demographic details and behavioral indicators relevant to sustainable consumption. It included:

- Demographic questions (age, gender, occupation, education level, etc.)
- Close-ended questions on a 5-point Likert scale (1 = Strongly Agree, 5 = Strongly Disagree) to measure:
    - Environmental concern
    - Awareness of sustainable products
    - Influence of eco-friendly packaging
    - Sustainable branding and certifications
    - Purchase intention and perceived benefits

The questionnaire was pre-tested with a small group to ensure clarity and reliability before wider circulation.

3.4 Tools and Techniques Used for Analysis

The data collected was analysed using Statistical Package for the Social Sciences (SPSS) and Microsoft Excel. These tools were employed to perform both descriptive and inferential statistical analyses.

Descriptive Analysis:

- Frequency and percentage distribution to describe demographic profiles
- Mean and standard deviation to summarize consumer responses
- Cross-tabulations to compare behaviour across different demographic groups

Inferential Analysis:

To draw meaningful conclusions and test hypotheses, the following statistical techniques were applied:

- Chi-Square Test: To assess associations between categorical variables such as age and purchase behaviour.
- Independent t-Test: To compare the means between two groups (e.g., male vs. female respondents).
- ANOVA (Analysis of Variance): To compare means across more than two demographic categories (e.g., educational levels or income groups).

Correlation and Regression Analysis:

- Pearson correlation was used to examine the strength and direction of the relationship between independent variables such as environmental awareness and dependent variables like purchase intention.
- Multiple regression analysis was applied to identify the most significant predictors influencing sustainable purchase behaviour.

The combination of a structured survey and quantitative analysis tools enables a systematic exploration of consumer behaviour patterns and attitudes. The use of SPSS enhances the accuracy and reliability of statistical interpretations, while convenience sampling allows quick data collection, which is practical for student-led projects with limited resources.

DATA ANALYSIS:

In order to gain an understanding of the variables that affect consumer behaviour towards purchasing sustainable products, the analysis of information for this study combines descriptive, inferential, and exploratory techniques. This chapter primarily focuses on an exhaustive examination of the data that is currently available to learn more about the facts relating to consumer behaviour with regard to sustainable products. 74 respondents provided the information that was gathered.

4.1 Demographics analysis

Table 1: Demographics Table

		Count	Column N %
Gender	**Male**	**44**	**59.50%**
	Female	**30**	**40.50%**
Age	**Below 25**	**46**	**62.16%**
	26-35	**27**	**27.30%**
	36-45	**1**	**1.30%**
Where do you live?	**Rural**	**1**	**1.30%**
	Semi-Urban	**11**	**14.86%**
	Urban	**62**	**83.78%**
Qualification	**Postgraduate**	**64**	**86.48%**
	Undergraduate	**10**	**13.50%**
Occupation	**Businessmen**	**2**	**2.70%**
	Employee	**16**	**21.60%**
	Freelancing	**1**	**1.30%**
	Professional	**3**	**5.40%**
	Recently not working	**1**	**1.30%**
	Student	**51**	**68.90%**
Marital Status	**Married**	**9**	**12.16%**
	Not Married	**65**	**87.83%**

Here are some conclusions drawn from the information provided:

Male participants make up more than female participants (59.5% vs. 40.5%).

Most of the participants (62.16%) are under the age of 25, followed by those between the ages of 26 and 35 (27.3%). Only 1.3% of participants (who range in age from 36 to 45) fall within this age brackets.

Only a small percentage of participants (14.9%) and the majority (83.78%) of participants (83.78%) live in semi-urban or rural areas.

Only a few participants (13.5%) have undergraduate degrees, while the majority (86.48%) have postgraduate degrees.

Students make up the majority of participants' occupational categories (68.9%), followed by employees (21.6%). Only a small portion of participants identify as businesspeople, independent contractors, professionals, or recently unemployed.

87.83% of participants are single (the majority), while only a few are married (12.16%).

4.2 Inferential Statistical Analysis

Inferential statistics help us make educated guesses about a larger group by analysing data from a smaller sample. They're used to figure out whether any differences we see in the data actually reflect real differences in the overall population.

Table 2: Reliability Test

Reliability Statistics				
Cronbach's Alpha	**N of Items**			
0.867	**5**			
Item-Total Statistics				
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation n**	**Cronbach's Alpha if Item Deleted**
I am aware of the benefits of sustainable products for environment	14.79	10.416	0.745	0.825
I am aware of the point of purchase for sustainable products	15.02	11.097	0.706	0.836

I am aware of various brands offering sustainable products	15.26	11.418	0.668	0.845
I am aware of various symbols/certifications/other identifiers with declare the products as sustainable product	15.38	11.022	0.685	0.84
I am aware of the benefits of sustainable products for health	14.98	10.17	0.663	0.85

The above table shows Cronbach's Alpha coefficient is 0.867, which indicates a relatively high level of internal consistency among the items in the test. This suggests that the items are measuring the same construct, and that they are reliable and consistent in their measurement.

It is generally accepted that a value between 0.6 and 0.7 denotes an acceptable level of reliability and a value between 0.8 and greater, a very good level. Overall, the table suggests that all five items are strongly correlated with the overall score of the scale and contribute positively to the reliability of the scale. The highest corrected item-total correlation is for the first item, indicating that it is the most strongly related to the overall score. However, all items have relatively high corrected item-total correlations, indicating that they all measure a similar construct of awareness of sustainable products.

Table 3: Reliability Test

Reliability Statistics				
Cronbach's Alpha	**N of Items**			
0.815	**5**			
Item-Total Statistics				
	Scale Mean if Item Deleted	**Scale Variance if Item Deleted**	**Corrected Item-Total Correlation n**	**Cronbach's Alpha if Item Deleted**
It is important to me that the product I use do not harm the environment	14.46	9.502	0.65	0.768
I am concerned about wasting the resource of our planet	14.35	10.232	0.662	0.761

My purchased habits are affected by the concerns of the environment	14.57	10.218	0.719	0.745
I consider the potential environment impact while making a purchase decision	14.92	11.353	0.502	0.809
I would describe myself as environmentally responsible citizen	14.74	12.29	0.52	0.804

The above table shows Cronbach's Alpha coefficient is 0.815. which indicates a relatively high level of internal consistency among the items in the test. This suggests that the items are measuring the same construct, and that they are reliable and consistent in their measurement. Overall, the item-total statistics suggest that the first three items are important IOJ the overall reliability of the scale, while the fourth and fifth items have less influence However, all five items contribute to measuring attitudes towards the environment and should be retained in the scale unless there are specific reasons for removing any of them.

Table 4: The factor which affects the most buyers before purchasing a sustainable product

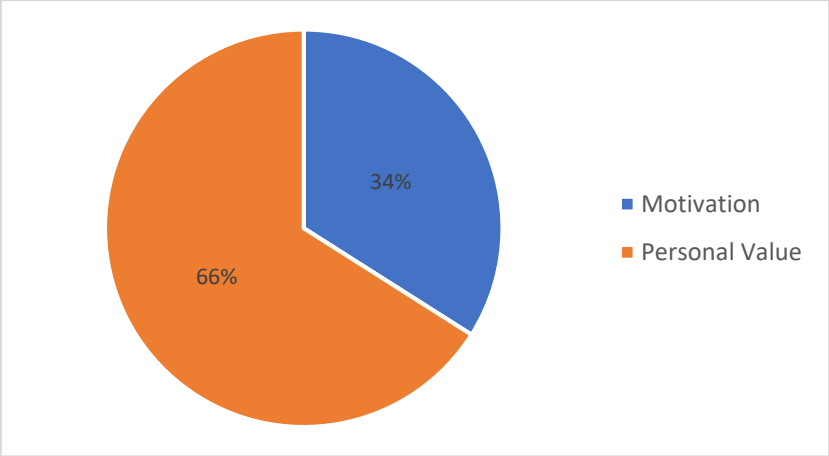
The factor which affects the most buyers before purchasing a sustainable product?					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid		32	43.2	43.2	43.2
	Environment protection	24	32.4	32.4	75.7
	Increase in quality of life	9	12.2	12.2	87.8
	Potential increase in product value	4	5.4	5.4	93.2
	Self-satisfaction	5	6.8	6.8	100
	Total	74	100	100	

Based on the data provided, it appears that the factor which affects the buyer most before purchasing sustainable products is environment protection, with 32.4% of respondents selecting this option. The second most selected factor is self-satisfaction, with 6.8% of respondents selecting this option. The remaining factors, including frequency, increase in

quality of life, and potential increase in product value, were selected by smaller proportions of respondents.

Internal Factors

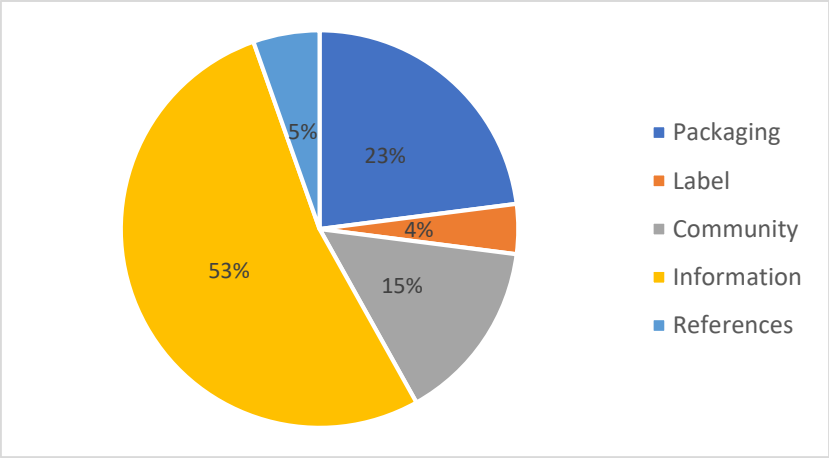
Graph 1: Internal Factors which affect the most before purchasing a sustainable product



Among the 74 respondents, 47 responded positively towards buying a sustainable product. The internal factors that are responsible for consumer buying behaviour towards sustainable product are motivation and personal value. It appears that personal value has a great influence on the consumer behaviour with 66% and motivation with 34%.

External Factors

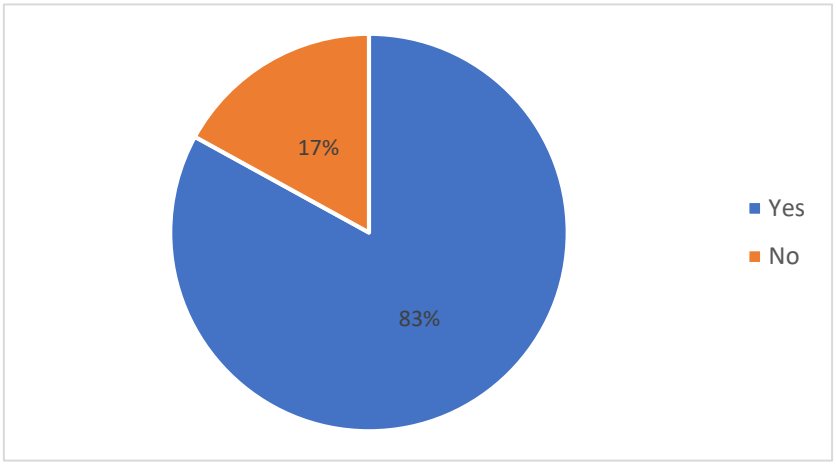
Graph 2: External Factors which affect the most before purchasing a sustainable product



Among the 74 respondents, 47 responded positively towards buying a sustainable product. The external factors that are responsible for consumer buying behaviour towards sustainable product are sustainable packaging, label, community, information. It appears that information possessed by consumers has a great influence on the consumer behaviour with 53.2%, then community with 14.9% and sustainable packaging with 23.4%.

Willingness to pay

Graph 3: Buyers willing to pay more for sustainable products.



Out of 74 respondents, 47 said they were open to buying sustainable products. In fact, 83% of them were willing to pay a bit more for these products—mainly because they're made without harmful chemicals, produced in clean conditions, and are recyclable, reusable, and biodegradable. The analysis also showed a clear link between how much people care about the environment and their willingness to spend on sustainable options. Simply put, the more environmentally concerned someone is, the more likely they are to choose eco-friendly products. This supports what earlier research has found: as people become more aware of environmental issues, they're increasingly drawn to sustainable choices.

Descriptive Statistics

Descriptive statistics help make sense of data by summarizing and highlighting its key features. They give a clear overview of a dataset—like averages, ranges, or patterns—so analysts can better understand what the data is showing. Based on the given descriptive statistics, we can make the following observations:

Table 5: Descriptive statistics of the level of awareness towards a sustainable product

Descriptive Statistics						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
I am aware of the benefits of sustainable products for health	42	4	1	5	3.88	1.152
I am aware of the benefits of sustainable products for environment	42	4	1	5	4.07	1.022
I am aware of various brands offering sustainable products	42	3	2	5	3.6	0.912
I am aware of various symbols/certifications/other identifiers with declare the products as sustainable product	42	3	2	5	3.48	0.969
I am aware of the point of purchase for sustainable products	42	4	1	5	3.83	0.935
Valid N (listwise)	42					

According to the table above, respondents' awareness of the advantages of sustainable products for the environment was on average the highest (mean=4.07), followed by their awareness of the advantages of sustainable products for health (mean=3.88) and the place where they should buy sustainable products (mean=3.83). The lowest level of awareness for different symbols, certifications, and other identifiers that indicate a product is a sustainable product was reported by respondents (mean: 3.48), followed by various brands that offer sustainable products (mean: 3.60).

The standard deviation for each dimension of awareness ranges from 0.912 to 1.152, indicating that there is some variability in the responses. Overall, the results suggest that respondents have a moderate level of awareness about the dimensions of sustainable products, with the highest awareness for the environmental benefits of sustainable products.

Raising awareness about sustainable products can be effectively done through labelling, packaging, and advertising. People who are already familiar with and have used sustainable products often agree that these products make a positive difference for the environment. As Nguyen et al. pointed out, when consumers understand how well sustainable products perform, it helps them work toward their own environmental goals. This shows that increasing awareness can influence buying decisions and, over time, help shift the market in a more

positive direction. Educating people about sustainable products can also boost their intention to use them, leading to more environmentally conscious behaviour. Not only do sustainable products benefit the planet, but they also help reduce waste and can ease financial pressure in the long run.

4.3 Hypothesis Testing

Hypothesis testing is a statistical method used to check whether an assumption about a population is likely to be true. The approach an analyst takes depends on the type of data they're working with and the purpose of the analysis.

Hypothesis 1

Null hypothesis (Ho): There is no association (relationship or dependency) between Gender and consumer buying behaviour towards Sustainable products.

Alternate hypothesis (H1): There is an association (relationship or dependency) between Gender and consumer buying behaviour towards Sustainable products.

Table 6: Chi-Square test of association between Gender and Consumer Behaviour towards sustainable product

Chi-Square Tests

	Value	df	Asymptotic Significance (2sided)
Pearson Chi-Square	**76.994[a]**	**4**	**<.001**
Likelihood Ratio	**44.49**	**4**	**<.001**
N of Valid Cases	**74**		
a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .49			

The results of two different chi-square tests-the Pearson Chi-Square and the Likelihood Ratio are displayed in the output you provided. To investigate the relationship between categorical variables, both tests are used. The chi-square statistic's value for each test is shown in the first column, "Value," of the table. The degrees of freedom for each test are shown in the second column, "df." and they are equal to the number of categories minus one. Since there are four categories in this situation, df = 4-1 = 3. The p-value for each test is displayed in the third column, "Asymptotic Significance (2-sided)". In the event that the null hypothesis is correct, the p-value represents the likelihood of observing a result that is equally extreme to or more

extreme than the observed result. The p-value is less than 0.001 in both instances, indicating strong evidence against the null hypothesis of no association between the variables.

Hypothesis 2

Null hypothesis (Ho): There is no association (relationship or dependency) between Age and consumer buying behaviour towards Sustainable products.

Alternate hypothesis (H1): There is an association (relationship or dependency) between Age and consumer buying behaviour towards Sustainable products.

Table 7: Chi-Square test of association between Age and Consumer Behaviour towards sustainable product

Chi-Square Tests

	Value	df	Asymptotic Significance (2sided)
Pearson Chi-Square	**75.346**[a]	**6**	**<.001**
Likelihood Ratio	**43.229**	**6**	**<.001**
N of Valid Cases	**74**		
a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .08			

The results suggest that there is a relationship between age and sustainable product purchasing behaviour. The majority of individuals who have purchased a sustainable product are in the below 25 age group (65%, followed by the 26-35 age group (55.6%). No individuals in the 26-35 age group reported not purchasing a sustainable product, indicating a strong association between this age group and sustainable product purchasing behaviour.

Both tests have 6 degrees of freedom and the p-values for both tests are less than .001, which indicates a significant association between the variables being tested. The minimum expected count is .08. which is higher than the commonly used threshold of 5. It suggests a significant association between the variables being tested, but the low expected counts in some cells may limit the confidence in the results. However, the minimum expected count being higher than S reduces this limitation. Hence, rejection of null hypothesis.

Hypothesis 3

Null hypothesis (Ho): There is no association (relationship or dependency) between Income and consumer Buying behaviour towards Sustainable products.

Alternate hypothesis (H1): There is an association (relationship or dependency) between Income and consumer buying behaviour towards Sustainable products.

Table 8: Chi-Square test of association between Income and Consumer Behaviour towards sustainable product

Chi-Square Tests

	Value	df	Asymptotic Significance (2sided)
Pearson Chi-Square	**75.930[a]**	**6**	**<.001**
Likelihood Ratio	**43.401**	**6**	**<.001**
N of Valid Cases	**74**		
a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .08			

The table shows results from two statistical tests—the Pearson Chi-Square test and the Likelihood Ratio test. Both tests, which were run with six degrees of freedom, show a very low p-value of 0.001. This means there's a strong difference between what was observed in the data and what we would expect if the variables were completely unrelated. Specifically, the Pearson Chi-Square test gives a value of 75.930, and the Likelihood Ratio test gives a value of 43.401—both supporting the conclusion that there's a meaningful relationship between the variables being studied. In this case, the significant difference suggests a clear link between income and the expected outcomes, so we can confidently reject the null hypothesis.

Hypothesis 4

Null hypothesis (Ho): There is no association (relationship or dependency) between Sustainable Value and consumer Buying behaviour towards Sustainable products.

Alternate hypothesis (H1): There is an association (relationship or dependency) between Sustainable Value and consumer buying behaviour towards Sustainable products.

Table 9: Regression Analysis of association between Sustainable Value and Consumer Buying Behaviour towards sustainable product

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.913[a]	0.834	0.83	0.3394
a. Predicators: (Constant), SustainableValue				

ANOVA[a]						
Model		**Sum of Square**	**df**	**Mean Square**	**F**	**Sig.**
1	**Regression**	23.128	1	23.128	200.77	<.001[b]
	Residual	4.608	40	0.115		
	Total	27.735	41			
a. Dependent Variable: Purchase						
b. Predictors: (Constant), GreenValue						

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	**(Constant)**	0.15	0.251		0.596	0.554
	SustainableValue	0.924	0.065	0.913	14.169	<.001
a. Dependent Variable: Purchase						

Based on the provided summary, a linear regression model was constructed with one predictor variable-"Sustainable Value"-and a fixed term. The variable that serves as a predictor can explain 83.4% of the variation in the answer variable (the dependent variable) according to the model's R-squared value of 0.834. The adjusted R-squared value, which is a bit lower at 0.830, accounts for the number of predictor variables in the model. The standard error of the estimate, which is 0.33940, measures the average deviation of the observed values from the regression line. The model's overall fit is very good (R = 0.913), and the predictor variable "Sustainable Value" seems to be highly significant in describing the differences in the response variable. As a result, the null hypothesis is disproved.

Correlation Analysis

A method of statistics used for study to determine the relation between two variables and gauge the degree of the linear relationship between them is correlation analysis.

Table 10: Correlation Analysis of association between Sustainable Value, Awareness and Consumer Buying Behaviour towards sustainable product

Correlation				
		Purchase	Value	Awareness
Purchase	Pearson Correlation	1	0.284	.313*
	Sig. (2-tailed)		0.065	0.043
	N	43	43	42
Value	Pearson Correlation	0.284	1	.999**
	Sig. (2-tailed)	0.065		<.001
	N	43	68	42
Awareness	Pearson Correlation	.313*	.999**	1
	Sig. (2-tailed)	0.043	<.001	
	N	42	42	42
*. Correlation is significant at the 0.05 level (2-tailed).				
**. Correlation is significant at the 0.01 level (2-tailed).				

Before determining the nature and implications of a relationship between variables, bivariate correlation analysis, also known as correlation analysis, focuses on determining whether one exists. The Pearson correlation coefficients and associated statistical significance levels (pvalues) for three variables-purchase, value, and awareness are displayed in a correlation table.

The table shows that Purchase and Value have a moderate effect size and a statistically significant positive correlation (r = 0.284, p = 0.065). Purchase and Awareness also have an acceptable effect size and a highly significant positive correlation (r = 0.313, p = 0.043).

Furthermore, Value and Awareness have a very strong positive correlation (r= 0.999, p 0.001), which shows that they are almost perfectly related.

Its worth noting that the sample sizes for the three variables are different, with the largest sample size being for Value (n = 68) and the smallest being for Awareness (n = 42). Overall, these results suggest that there may be important relationships between these variables, and they could be useful for understanding consumer behaviour and making marketing decisions.

4.4 Finding and Recommendations

According to the study's findings, consumer environmental awareness, awareness and benefits derived are the key determinants of whether they choose to buy sustainable products. This emphasises how crucial it is for companies to educate customers about the environmental advantages of their products. Businesses should also make sure that their eco-friendly goods are well-made and cost-effective. However, consumers seem willing to seek out sustainable products even if they are not widely available, so their availability may not be as important as previously believed.

The study sought to understand how consumers felt about sustainable products. The study's key findings are listed below.

- Of the respondents, 59.50% were men and 40.50% were women.
- The age group of respondents with the highest percentage (62.10%) is under 25 years old.
- The majority of respondents (86.48%) have completed post-graduate coursework.
- The income of the respondents is below $20,000 in 68.3% of cases.
- 87.7% of respondents were aware of the advantages and benefits of sustainable products.
- 63% of respondents reported having purchased a sustainable product.
- 87% of respondents think environment protection as the major factor while buying a sustainable product.
- According to 67% of participants, the main internal consideration when purchasing a sustainable product is personal value.
- In comparison to standard products, 83% of respondents are willing to pay more for sustainable products.
- The majority of those polled are aware of the advantages for both personal health and the surroundings. You can cut down on your consumption of energy and emissions of carbon by purchasing sustainable products and services, such as those that use renewable energy. By selecting goods and services that use waste or recycled materials as a raw material or resource, you can conserve natural resources.
- Reason for not purchasing a sustainable product can be attributed to lack of awareness and confidence in performance of sustainable product. Few find it expensive and it seems they are not available in wide variety.
- The government needs to take corrective action and raise awareness for people to be persuaded to purchase environmentally friendly products from the nearby market.
- To eventually transition to a sustainable economy, the government should promote sustainable product and service concepts.

- According to the findings, consumers should use products that can be recycled or reused, efficient products that reduce environmental impact by saving water, energy, or petrol, organic products that guarantee quality, and certified products that meet or exceed environmental responsibility standards. Global consumer consumption has increased in recent decades, which is proof of the rapid economic expansion. As a result, natural resources are used excessively, which worsens the environment. Environmental degradation has a number of effects, including desertification, acid rain, water pollution, noise pollution, and loss of the ozone layer. reported that about 40% of environmental degradation is caused by private households' consumption patterns
- If a product is more valuable, most consumers are willing to pay a higher price. This kind of value enhancement can be produced using sustainable value. Marketers should launch a coordinated and united campaign to increase customer awareness of sustainable marketing because not all customers are familiar with the concept. Even though it will take time and effort, the public must become aware of the new sustainable movements.
- Sustainable marketing involves promoting environmentally friendly goods and services, environmentally friendly technology, and environmentally friendly power and energy sources. All of these require a sizable investment in R&D and subsequent marketing campaigns because they will introduce some new, improved methods for producing, communicating, and delivering environmentally friendly goods and services.
- Providing sustainable products and services alone is insufficient; they must also be well-suited to the realities of customers' needs. Marketers should design their products and services in response to true customer needs.
- Marketers should implement sustainable policies as a long-term strategy because most sustainable initiatives have a high initial cost but are beneficial and cost-effective in the long run. The government should finance sustainable initiatives so that marketers may get sustainable products and services at affordable pricing.
- Authorities should hold seminars and awareness campaigns to increase consumer knowledge of sustainable products.
- The importance and benefits of sustainable products for achieving environmental sustainability will be covered in the students' course materials. Future studies should take into account some research limitations despite the fact that this study has illuminated the marketing of sustainable products. The first flaw is that the research goals of this study were constrained to the utilisation of sustainable products. Second, this study used convenience sampling. The sample size was restricted to 74 due to time constraints. The results could be biased and the representativeness of this sample size could be constrained.

4.5 Limitation of the study

Although this study has shed light on the marketing of sustainable products, there are still some research limitations that should be considered in future investigations.

- **Sample Size:** The sample size is a bit small with only 74 respondents and might not be representative of the entire population. A greater number of respondents might provide a more accurate representation of the level of consumer knowledge regarding sustainable products.
- **Sampling Bias:** Because the poll was completed online, sampling bias may have occurred. those who are more inclined to take part in online surveys could behave and hold different attitudes towards sustainable product than those who do not.
- **Self-Reporting Bias:** Since the results in the survey were self-reported, biases such social desirability bias and recall bias may have been present. It's possible that respondents gave responses they believed to be socially acceptable.
- **Time Restrictions:** Because the study was carried out at a given time, attitudes and behaviours of consumers towards buying a sustainable product may have altered since then.

CONCLUSION:

The primary goal of the essay was to examine how consumers approach buying sustainable products. Factors like a consumer's age, gender, income, or educational background have some impact on their purchasing decisions and satisfaction with sustainable products. Consumer purchasing decisions are influenced by their level of motivation and personal value for the products. Younger consumers have been found to be kinder to the environment. Consumers give the features of sustainable products the most weight when making purchases. They are even willing to pay more for eco-friendly products in order to protect their environment. Clients are urged to buy eco-friendly goods because they care about the environment and because they believe they might be better for their health.

Gender has no bearing on how consumers choose to purchase sustainable goods. However, it has been observed that those under the age of 20, or the younger generation, are more likely to purchase sustainable products because they are produced in clean environments without the use of harmful chemicals, are recyclable, reusable, naturally biodegradable, and come in packaging that is sustainable. The purchasing habits of consumers with regard to sustainable products are greatly influenced by income. Consumers who buy sustainable products are undergraduates and postgraduate educated, and have a pro-environment outlook. The findings also indicated that customers are more likely to buy sustainable goods if they are not married. It's possible that this group of consumers buys eco-friendly goods out of concern for the health of their family and themselves.

Global consumer spending has increased in recent years, which is proof of the rapid economic expansion. As a result, resources from nature are used excessively, which exacerbates the environment. Environmental degradation has a number of effects, including desertification, acid rain, water pollution, noise pollution, and loss of the ozone layer. It was estimated that about 40% of environmental degradation is caused by private family consumption patterns. Therefore, businesses must put more effort into enhancing the quality of sustainable products and offering them at competitive prices. It turns out that although consumers are aware of the problem, they only have a vague understanding of the facts regarding the components of sustainable products. People are purchasing eco-friendly products like those made with organic materials, herbs, or Ayurveda. Infomercials (instead of just commercials) should be used by advertisers to increase consumers' understanding of the environmental advantages of sustainable products. Businesses may use infomercials to promote their eco-friendly products and educate consumers at the same time because they frequently contain a wealth of information about the subject at hand. The rising cost and subpar quality of sustainable products rank as the two main barriers and disincentives for consumers to consider buying such goods. Realise the advantages of popularising sustainable marketing or sustainable product promotion. Individuals' small contributions will add up to make a big difference in the future.

However, in order to manufacture sustainable products, more money needs to be invested right away in technology and equipment. Items with minimal environmental effects are perceived as being of higher quality by consumers, who are more likely to make a purchase. Many of the people who responded to the survey believe they are knowledgeable about the benefits and drawbacks of the environmental products they buy. Future consumer habits, such as growing environmental awareness and interest in sustainable products, could have a significant impact on the market penetration of sustainable goods.

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ANNEXURE:

Examining Consumer purchase behavior towards Sustainable Product

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* Indicates required question

Gender *

- ○ Male
- ○ Female
- ○ Other

Age *

- ○ Below 25
- ○ 26-35
- ○ 36-45
- ○ 45 and Above

Qualification *

- ○ Post Graduate
- ○ Under-Graduate
- ○ Higher Secondary Certificate (12th)
- ○ Secondary School Certificate (10th)

Occupation *

- ◯ Employee
- ◯ Businessman
- ◯ Professional
- ◯ Student

Martial Status *

- ◯ Married
- ◯ Unmarried

Monthly Income *

- ◯ Less than 20000
- ◯ 20000 to 30000
- ◯ 30000 and Above

Where you live? *

- ◯ Urban
- ◯ Semi-Urban
- ◯ Rural

It is important to me that the product I use do not harm the environment *

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

I am concerned about wasting the resource of our planet *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I would describe myself as environmentally responsible citizen *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Are you aware of sustainable product and sustainable marketing *

- ○ Yes
- ○ No

Type of green product bought recently *

- ○ Food
- ○ Fashion and Apparel
- ○ Cosmetic
- ○ Household
- ○ Other:

According to you what is the need of sustainable marketing *

- ◯ Environment protection
- ◯ Feature of the product
- ◯ Personal health
- ◯ Publicity

How frequently do you buy sustainable product *

- ◯ Regularly
- ◯ Average
- ◯ Rarely

The factor which affects the buyer most before purchasing sustainable products *

- ◯ Increase in quality of life
- ◯ Environment protection
- ◯ Potential increase in product value
- ◯ Self satisfaction

Which of the following external factors influences you while buying sustainable products? *

- ◯ Packaging
- ◯ Label
- ◯ Community
- ◯ Information
- ◯ References

Which of the internal factors influences you while buying sustainable products? *

- ◯ Motivation
- ◯ Personal value

Are you willing to pay more for sustainable products? *

- ◯ Yes
- ◯ No

Have you purchased any sustainable products? *

- ◯ Yes
- ◯ No

How would you describe your level of awareness about the following dimensions of sustainable product?

I am aware of the benefits of sustainable products for health *

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

I am aware of the benefits of sustainable products for environment *

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

I am aware of the point of purchase for sustainable products *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I am aware of various brands offering sustainable products *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I am aware of various symbols/certifications/other identifiers with declare the products as sustainable product *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Why do you purchase the sustainable products?
For below 2 questions

I purchase sustainable product because it can be recycled, reused and is biodegradable in nature *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

I purchase a sustainable product because it comes with eco friendly packaging *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

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