

Volume: 01 | Issue: 02 | August: 2025

ANANYAŚĀSTRAM:

An International Multidisciplinary Journal (A Unique Treatise of Knowledge) Peer-Reviewed | Refereed | Open Access Journal

DOI: https://doi.org/10.64328/aimjv01i02054





An Empirical Study on Sustainable Food Consumption: An Indian **Perspective**

Dr. Rhuta Mehta^{1*} and Prof. (Dr.) Tejash Pujara²

Abstract

Research Article

Change in the environment leads to resource diminution and endangers the eco-systems, which starts impacting to the economic progress of the countries around the world. More extreme weathers, biodiversity reduction may frighten our existing way of living life. To manage within available finite resources and to meet the needs of growth and live, it is required to make food consumption patterns more environmentally sustainable. It is becoming quite essential to incorporate the sustainable consumption and sustainable Development Goals (SDG) patterns into the daily food choices and eating habits. A large number of people are already having the affirmative and concerned views towards sustainable food and its consumption but still the notable breach exists between their approaches, practice for purchase and consumption of sustainable food products.

The current work focused on studying consumers' behaviour towards sustainable food consumption. A structured questionnaire was equipped and disseminated to the potential respondents via Google form. 161 responses were received. Findings of the study suggested awareness and positive attitude about sustainable food and readiness to consume, and pay premium for it among the respondents but also highlighted the drawbacks of unavailability and high price of sustainable food products.

This research paper contributes towards understanding awareness and attitude towards sustainable food and its consumption practices. This will help us to achieve SDG goal that are ensuring the sustainable consumption and production patterns and also helps in creating insights for the actionable policies and practices.

Keywords: SDG#12, Sustainability, Sustainable Consumption, Sustainable food Consumption

Introduction

The UN members under the Sustainable Development Summit - 2015, have taken up the Sustainable Development Goals (SDGs), for repositioning the way of sustainability. Particularly # SDG 12, explains about the responsible production and consumption targeting to the present structure and pattern of buyer behaviour

Website: www.youngindiapublication.in

Associate Professor, Darshan Institute of Management, Darshan University, Rajkot, Gujarat, India., ORCID: https://orcid.org/0000-0003-1822-4566

² Professor, Tolani Motwane Institute of Management Studies, Adipur, Gujarat, India. ORCID: https://orcid.org/0009-0001-3394-5516

^{*}Corresponding Author: Dr.Rhuta Mehta, Associate Professor, Darshan Institute of Management, Darshan University, Rajkot, Gujarat, India., Email: rhuta.mehta@darshan.ac.in



to be more sustainable. In precise, it emphasizes in providing suitable information and escalating the consciousness about sustainability and life style in harmony with the environment. India, being at the significant point in time of the gradual progression from an evolving country to a world leader, continues to face numerous intrinsic setbacks in the province of sustainable consumption and production (SCP). The notion of SCP has proceeded over the time and is described in many ways. A frequently used explanation is: "the use of services and associated products which respond to the basic needs and get a better quality of life while reducing the use of natural resources and noxious supplies as well as the discharge of waste and contaminants over the life cycle of those services or products so that it is not to jeopardize the desires of future generations" (ISSD 1994). An additional broadly applied and the latest definition is given by UNEP: "SCP is the holistic approach to minimize the harmful ecological impacts from consumption and manufacturing systems while upholding the quality of life for all" (UNEP 2011). Though abundant research is done for the consumer behaviour in general (Muralidharan et al., 2015; Sharma and Kurani, 2004), but there have been very less research done as far as sustainable consumer behaviour is concerned.

Literature reviewed:

In the current research, literature reviewed ranges from 1972 till 2025 as concern regarding sustainable development was coined during 70s and later realized to develop the sustainable consumption and production since early 2k. Reviewed literature has been classified under two categories: a) Sustainability and Sustainable Production and Consumption, b) Sustainable Food Consumption.

Sustainability and Sustainable Consumption:

The scientific community in 1970s, started to comprehend that unsustainable progress was leading nowhere but toward environmental and economic fall down, which is also known as "limits to growth", the Club of Rome has proposed this term first time (Meadows et al., 1972). After years of financial development and progress, the sustainable development (SD) is understood to be an effort "without alternative" for the continued existence of civilization (Seiffert and Loch, 2005). As a principal objective and crucial requirement for establishing Sustainable Development, the assimilation of consumption and production systems with Sustainable Development was prepared and executed (Akenji and Bengtsson, 2014; Lozano et al., 2015). In a modern time, sustainability has become an essential behavioural standards for diverse communal cluster. It becomes progressively more high up subject of academic research (Cervellon and Carey, 2014), public policy creation (European Commission, 2016) and marketing practice (Skroupa, 2017). The center thought of sustainability is based on the rethinking of consumption pattern for saving natural resource and achieving sustainable development for the nation (Hofmeister-Tóth et al., 2011, Kates et al., 2005; Nguyen et al., 2017; Quoquab and Mohammad, 2016). Rising demand for food, water, energy, and other means have caused in resource exhaustion, contamination, ecological deprivation and climate change, the earth approaching towards its biophysical boundaries. Humans are now using more means than ever before; the existing models of development across the world are not sustainable. One of the key elements for achieving sustainable

development is the transition towards Sustainable Consumption and Production (UNEP-2015). It is obvious that excess use and misuse of the environmental resources are at increasing and as a result, earth soil's crucial assets are lessening to a frightening level (Reimer and Alisat, 2015; Bogueva et al., 2017). The exponential growth of businesses and globalization have directed towards the increased transnational movement, which is the main cause of environmental smash up in different ways.

In developed economies, conventional and mature manufacturing technologies restrict the basic transform of environmental burden from the manufacturer (Moors et al., 2005). But facing the excessive, uneconomical and unproductive usage of resources, in this situation some considerable attempts must be undertaken to change the over-consumption patterns (from the consumption viewpoint) which helps to reduce the raw material and energy intensity (Jonkutė and Staniškis, 2016; Staniškis, 2012).

On the other hand, in developing economies, there will be insufficient resources to convene essential necessities over and over again where millions of people are facing under-consumption (Clark, 2007). Governmental strategies in these developing economies try to grow their economy and attempt to feed the famished and under privileged, rather than focusing on the environmental well-being (Fang et al., 2007), even though these underdeveloped or developing economies have observed the environmental breakdown of the development pattern executed by them, often referred to as a rearward approach tending to "grow first, clean up later" of the developed ones (Rock and Angel, 2007, Manohar and Kumar, 2016; Vergragt et al., 2016). However, governance functionality for SCP is nevertheless unsatisfactory in several aspects (Schroeder, 2014) and these programs do not result in the intended success.

Strategies for SCP differ for various countries depending on economic condition, demography, and sociocultural factors (Spaargaren, 2011). While India as one of the fastest growing economies of the world, but the same time it facing challenges which are largely ingrained with the socio-economic setting of the country, as it continued to be the home of the large mass of poor (Francis & Sarangi, 2021), half of the Indian population and a major growth was found to have occurred in the lower-middle-class families, who now consume at a much higher rate than before (Krishnan and Hatekar, 2017). Utilization of available possessions in ethical manner is becoming significant for patrons as well as corporate all over the world and thus, conscientious activities are needed to guard the environment. Varying financial condition and enhancement in earnings level resulted into a noteworthy shift in the consumption behavior of Indian middle class (Divesh kumar et al,2011). The Value Belief Norm (VBN) framework in its adapted version (A. Francis and G.K. Sarangi, 2022) have been applied in the Indian context which was grounded on consumption behavioural norms, the result has classified Indian millennial (entering in their young adulthood in the early 21st century) into 5 different categories like; unwilling consumers, aware consumers, cognizant consumers, consumers under the transition, and non-adapters respectively. Further it has been discovered that in the larger cities of India the environmental issues have been found at elevated stage but as a contradict; millennial of those large cities were found less involved, less in readiness to forgo than small cities of India. Younger millennial was more attentive about the environmental allusions concerning the consumption whereas; seniors were found more occupied in



sustainable consumption. Gender wise, females found more conscious than males. But the study concluded that it is very doubtful that India will achieve any of the targets of SDG 12 by 2030, unless some severe dealings are taken by the Government to turn around the present trend (CUTS International, 2021).

Sustainable consumption and production aim to utilize the resources responsibly to cater current needs without bargaining with the future generations. In the Indian context, motivations for adopting sustainable practices differ across age groups and regions. Kaur et al. (2022) witnessed that generations engage in the 3Rs"Reduce, Reuse, Recycle" differently, compelled by varied personal motivations. Similarly, Simon Kumar (2022) found that health concerns ominously impact sustainable household behaviors in Kerala. Recent studies also show that while awareness of sustainability is developing, practical choices are still shaped more by product attributes like quality and price than by social influence, as seen in Garg et al. (2024). Kirmani et al. (2024) emphasized that green literacy and perception are playing a vital role in shaping eco-friendly consumption, suggesting a need for targeted education and behavioral nudges to foster sustainable lifestyles.

Sustainable Food Consumption:

Climate changes hazard our sole eco-systems, which leads to more severe and intense weather events, diminishes the biodiversity, and in several ways terrorizes our existing way of living (O'Neill et al., 2017). Food represents a major issue in sustainable production and consumption, with its great impact on the environment as well on the economy (Donati et al., 2016; Fanzo, 2019). Consumption of domestic food is increasing, more than 60% of global greenhouse gas emissions and 50-80% total supply usage of it (Ivanova et al., 2016). In this situation, building people's eating patterns more environmentally sustainable is now more vital (Springmann et al., 2016; Hartmann and Siegrist, 2017; Magrini et al., 2018; Hedin et al., 2019), mainly in high-income nations, transforming food consumption is considered an essential condition for reaching global sustainability goals (UN, 2016). A considerable number of researches shown that customers value the moral facet in a merchandise and there is a readiness to spend more for such products. Further the Food preferences and eating behavior is tough to alter as it is a vital aspect of people's lifestyles (Sonestedt et al., 2005; Flaherty et al., 2018), and their socio-cultural environment (Cairns, 2019; Carrus et al., 2018; Wright et al., 2001). Food preferences are also subject to the marketing efforts made by the food companies that have caused transformation in their dietary norms, in food and beverage category fondness and in the cultural values underneath the food behaviors (Cairns, 2019). The involvedness of food related decisions makes them vulnerable to an extensive array of societal, cognitive, sentimental, and environmental influences (Bublitz et al., 2010).

A study tried to provide the theoretical background of the assertiveness and behavioral intention discrepancy by capturing the purchase intention for sustainable food, (dairy products). It has been measured that the bases for purchase intentions according to the theory of planned behaviour, namely, availability, social norms, perceived behavioral control, and attitudes, are relevant and important for different consumer segments as per the values and confidence hold by customers. The findings gave in the public policy and marketing suggestions for motivating sustainable food consumption among young adults (Iris Vermeira and Wim Verbeke, 2007).



In a same line, by recognizing and supporting a research roadmap, the research intended to contribute to tackle the obstacle of persuasive individuals to modify their eating and consumption habits toward more environmentally sustainable food consumption (ESFC). The resulting intrusion ranged from an illustration instructing and initiating personal norms as a mean to triggering the ecologically sustainable standards, to the exercise the feedback, executing intents and the refuting of revulsion and food neo-phobia as means to promote the endorsement of the intended ESFC. All in all, this study yielded a set of 33 future research questions in the interdisciplinary food domain that deserve to be addressed with the aim of fostering ESFC (Iris Vermeira et al,2020).

An examination of the present condition for the sustainable food habits amongst Slovak consumers have done with the leading purpose to establish the extent of buyer knowledge and alertness for sustainable food consumption and food waste by their acquiring decisions. There was a state of reliance between opinions on access to information and place of residence was not confirmed. The reliance between the finding the data and how and where the food products are produced and the level of education was confirmed. A dependency within the purchase of locally grown food and household income was established. And further a differences in preference of preparing shopping list according to age generations was also found significant (Mária Holotová et al. 2021). In one of the studies (WBCSD, 2008) made around the sustainable consumption across 14 countries including India, revealed that people feel consent to make actions about reducing consumption and waste to protect the environment. Investigating the factors affecting consumers' attitudes towards food products with sustainable attributes has been done with an empirical analysis with a sample of 300 consumers intended at reviewing the factors affecting consumer attitudes towards food products with sustainable attributes, like Organic, Fair Trade and typical products, are presented (Annunziata A., Scarpato D. .2014). Sustainable food consumption in India is predisposed by many factors including education, awareness, cultural habits, and product appeal. Dhawan et al. (2023) highlighted that while awareness is rising, significant policy and information gaps still exist. Biswas and Roy (2018) highlighted the role of education and social standards in urban consumers' sustainable food choices. Kotebagilu et al. (2023) noted growing interest in plant-based diets, though barriers like lack of awareness and acceptance remain. Goel et al. (2023) showed that food sustainability depends greatly on recipe composition and traditional dietary practices. More recent studies reinforce these findings: the WFP-IIMR (2025) survey revealed increased interest in millets, though taste and familiarity limit wider adoption. The Sahu report (2025) displayed Indian consumers are flowing towards sustainable food quicker than many global peers. DeCesaro et al. (2024) confirmed that India's traditional diet has a comparatively moderate environmental footprint. These insights underline the importance of food education, taste adaptation, and cultural alignment to support sustainable eating habits in India.

In total, the initiatives to encourage sustainable food consumption will compete with other situational influences on public's food selections that resulted that consumers' behavioral intention in the marketplace is actually inconsistent with their conveyed approach in direction of products with a moral facet. There was a



substantial gap found between favorable attitudes and actual purchase and consumption of more sustainable food products (Iris Vermeira and Wim Verbeke, 2007, Iris Vermeira et al., 2020).

Global Trends in Sustainable Food Consumption

Global studies indicate that while awareness of sustainable food is rising, actual consumer behavior often lags behind due to various barriers. Vermeir et al. (2020) found a common "attitude-behavior gap" in European countries, where people support sustainability but hesitate to act because of price concerns, narrow availability, and entrenched habits. In a comparison of millennials in China and India, Kong and Zhang (2022) sought that Chinese consumers are inclined more by government policies and eco-labels, while Indian consumers base their choices on social influence, health, and cultural beliefs—often struggling plant-based alternatives due to taste and tradition. In the Nordic region, Schaefer and Crane (2021) detected that strong belief in institutions and clear food labeling encouraged people to pay more for sustainable options. On the other hand, Sáez-Martínez et al. (2020) reported that in Latin America, especially in Colombia and Mexico, financial restrictions, lack of awareness, and poor access to eco-friendly products especially in rural areas hamper sustainable choices, despite traditional diets that are naturally more plant-based. These insights underline that consumer motivations and barriers to sustainable food vary greatly by region, shaped by economic, cultural, and institutional factors. Finally, Africa highlights cultural importance and affordability, but struggles with infrastructure and scarcity offering message for India on the value of local systems and community-driven approaches.

Through the referred literature, it has been observed that several communities already have affirmative and apprehensive views towards sustainable food and its consumption but still the notable fissure exists between their attitudes, practice for buying and using the sustainable food products.

Research Methodology

The paper builds on the descriptive research method. The Primary data collection was done through the online surveys (Google Form) through the structured questionnaire from 161 respondents of Gujarat State by using the convenience sampling method. Descriptive Statistics, Exploratory Factor Analysis, and cross tabulation have been applied to analyze the data by using the SPSS software. Sustainable Consumption Behaviour (SCB) scale created by Farzana Quoquab, et al..2019 is used as a base of this research paper and accordingly respondents' sustainable food consumption behaviour and attitudes has been interpreted. Question numbers 7 to 12 are multiple response questions (respondents can tick more than one options for the same) so in those questions first responses (first choices) are utilized for the analysis.

Research Objectives of the research are:

- 1. To identify the awareness and comprehension level of customers for sustainable food.
- 2. To understand the reasons to get attracted towards sustainable food.



- 3. To identify the problems faced to get sustainable food.
- 4. To identify the categories to establish the patterns in respondents' sustainable behaviour for food consumption.

Results:

Table 1.: Demographic Attributes of Respondents (N = 161)							
Demographic Attributes	n	%					
Gender							
Female	81	50.31					
Male	80	49.69					
Age							
20-39	121	75.16					
18-20	24	14.91					
40-60	16	9.94					
Educational Qualificatio	n						
Postgraduate	110	68.32					
Undergraduate	44	27.33					
Professional (CA/CS/MEDICINE/LAW)	7	4.35					
Occupation							
Student	117	72.67					
Service	28	17.39					
Professionals	9	5.59					
Business	7	4.35					
Annual Family Income							
1-5 lakhs	58	36.02					
5-10 lakhs	40	24.84					
less than 1 lakh	35	21.74					
More than 10 lakhs	28	17.39					

Table-1 describes the demographic attributes of the responders. Respondents covered in the study are with the almost equal gender distribution (M-49% and F-51%), more youth (75%) of 20-39 years of age group, students (73%) with the post-graduation (68%) degree and 36% and 24% respondents with annual income group of 1-5 lakhs and 5-10 lakhs respectively. Thus, the respondents surveyed are representing the youth and its behaviour towards sustainable food consumption. Further, the outcomes suggested that 82% respondents are aware about the sustainable food (**Table-2**) and when it was asked to explain the meaning of sustainable products on average, respondents selected four meaning of Sustainable Product i.e. Organic Food Products (83%), Environment friendly Food products (78%) next is Plant based food products and Animal Friendly products respectively 48% and 43% (**Table-3**). Though respondents also interpreted sustainable products as Seasonal products, products made without child labor or even locally produced products in a smaller amount.

Table 2.: Awareness regarding Sustainable Food (N = 161)				
Awareness n %				
Yes 132 82				
No	29	18		

Table 3.: Respondents' understanding about Sustainable Products (N = 161)					
Understanding	N	%			
Organic food products	133	83			
Environment friendly food products	125	78			
Plant based food products	78	48			
Animal Friendly products	70	43			
Seasonal food products	53	33			
Produced without the use of child labor	49	30			
Locally produced food products	48	30			
Fair trade food products	44	27			
Produced from legal logged material	32	20			
Insect-based food products	11	7			

25% respondents get to know about the sustainable products from the shop staff whereas; 20% respondents were knowing about the sustainable products as they have experienced earlier, 14% and 12% respectively get the information from their family-friends and TV programs (**Table-4**). When asked, reasons to find the sustainable products attractive (**Table-5**) to utilize form the respondents' side majorly was Good quality (68%) of product and 16% found it that it provide Good health. Good taste and Better safety concern also got some low percentage opinion but surprisingly, Good for Environment (2%) and Good for society (1%) has got the lowest percentage of respondents' opinion.

Table 4.: Respondents' Sources of information about Sustainable Products (N = 161)						
Source of Information	n	%				
Shop staff	40	25				
I go on my own knowledge and experience	33	20				
Family/Friends	22	14				
Television programs	20	12				
NGOs	15	9				
Labels on packaging	13	8				
Information present on the shop floor	10	6				
Consumer organizations	8	5				

Table 5.: Respondents' reasons to find of Sustainable Products attractive (N = 161)					
Reasons	n	%			
Good Quality	110	68			
Good for Health	26	16			
Better safety concern	14	9			
Good taste	6	4			
Good for Environment	3	2			
Good for society	2	1			

Table 6.: Respondents' Places to buy Sustainable Products (N = 161)						
Place	n	%				
Various different supermarkets	60	37				
Natural food shops/organic shops/supermarkets;	38	24				
Small independent shops	25	16				
Shops other than the supermarket	16	10				
Unable/difficult to get sustainable food	10	6				
Farmers market	6	4				
Internet	6	4				

Table-6 describes that Different supermarkets (37%), Natural food stores (24%), Small independent shops (16%) and other than supermarket (10%) are the major sources to get the sustainable products by the respondents. as a first choice, Farmers' market and Internet comes, but for very less respondents (4% each). 6% of respondents found unable or difficult to get the sustainable products. Inline to the same, **Table-7** describes the problems faced by respondents to get the sustainable products. Among those the Lack of availability (21%) of sustainable products comes second after the High price (64%) of the sustainable products. Non-attractive appearance also got less opinion (8%) with difficult to preserve (2%), inconvenience to use and difficult to trust the products and the producers for the sustainable products. In these, 4% of respondents found difficult to change their existing habits to use regular food products (instead of sustainable products). Still 71% of respondents shown their readiness to spend as much as 5% or more for sustainable products if it makes available to them, where 22% can pay 10-20% more for the same. Among all respondents, 7% are ready to pay any price to get the sustainable food products. (**Table-8**)

Table 7.: Problems faced by respondents to get Sustainable Products (N = 161)						
Proble	n	%				
High Price			103	64		
Lack of availability			34	21		
Non Attractive appearance/non-aesthetic			13	8		
Hard to change the existing habits (of us	ing regular f	ood products)	6	4		
Difficult to preserve				2		
Inconvenience to use				1		
Difficult to trust such (sustainable) products and producers			1	1		
Table 8.: Respondents' readin	ess to pay l	nigher for Sustainable P	roducts			
	(N = 161)					
Pay more upto n %						
5% more 114 71			•			
10-20% more 36 22			•	•		
Any price 11 7				•		

Findings derived from Exploratory Factor Analysis:

The factor analysis was steered to categorize the constructs which ultimately will establish the patterns in consumer behaviour for the sustainable food consumption. KMO and Bartlett's test suggested the sampling



adequacy. Three factors are recognized through the factor analysis, which are having propositions for the sustainable consumer behaviour of respondents regarding the food consumption. The cumulative variance of these three factors comprises 70.846%, with factors 1, to 3 explaining 31.214 %, 30.626%, and 9.005% of the variance respectively (**Table 9 &10**).

				Table	e-9a						
			KN	AO and Ba	rtlett's Tes	t					
	Kaiser-Me	eyer-Olkin l	Measure of San	npling Ade	quacy.				0.957		
Bartlett's	Bartlett's Test of Sphericity			Approx. Chi-Square			3478.6				
			Df						253		
					Sig.				0.000		
			Table-1	0 Total Exp	plained Vai	riance					
Elements	Pri	Primary Eigenvalues		Extraction Sums of Squared Loadings				·		ion Sums of Loadings	-
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %		
Concern for the food waste	13.794	59.972	59.972	13.794	59.972	59.972	7.179	31.214	31.214		
Concern for recycling and environment	1.533	6.664	66.636	1.533	6.664	66.636	7.044	30.626	61.841		
Awareness about social responsibility	0.968	4.210	70.846	0.968	4.210	70.846	2.071	9.005	70.846		

The rotated component matrix showing the factor loading in three factors which describing the sustainable behaviour of respondents towards food consumption (Table-11). It will help to explain the pattern of their behaviour which included the Concern for the food waste, Concern for recycling and environment and Awareness about social responsibility. Though statement 7 was loaded in concern for the food waste which as per the researchers' view should be a part of concern for recycling and environment but such differences may help to describe the understanding and interpretation of respondents for sustainable food consumption. Even though respondents were shown their awareness about the social responsibility as a citizen but still they expressed that in matter of usefulness and requirement of the product they may ignore the environmental concern at times.

Table-11 Rotated Component Matrix						
	Component					
	Concern Concern for Awareness abo					
	for the	recycling	social responsibility			
	food	and				
	waste	environment				
I attempt to decrease my food consumption by thinking of other			0.541			
persons.						
I consume food wisely to avoid wastage.	0.657					
I don't prefer to waste food or beverage.	0.699					
While eating in restaurant, I order food(s) only the quantity that I	0.752					
can have in order to avoid wasting food.						
I purchase (food products) merely to fulfill my basic needs and	0.756					
wants.						



I ponder sensibly about what (food products) I need to purchase.	0.768		
I recycle food vessel whenever there is a chance.	0.737		
I try to avoid consuming plastic bag (to carry food products) since it is not environmental friendly.		0.465	
I choose to use paper bag (to carry food products) as it is biodegradable.		0.508	
I frequently pay extra money to buy environmentally friendly product (e.g. organic food).		0.528	
I am anxious about the scarcity of the natural resources.		0.609	
I prefer to purchase organic food since it is environmental friendly.		0.542	
I don't care about the environment, as long the product is usable for me.			0.816
I constantly recall that my additional consumption can create burden for the future generation to meet up their needs.			
I am conscious to Cut down on the food wastage while consuming it		0.614	
I am Cutting down on packaging by preferring the fresh products to consume.		0.688	
I prefer to eat seasonal foods to avoid the storage for cutting down energy (electricity) for preservation (relates to fresh products).		0.674	
I prefer to Eat locally/regionally produced foods (to reduce the fuel consumption used in transporting it)			0.762
I think buyers are somewhat accountable for the environmental issues caused by the food products they buy.		0.768	
I believe it is important that food products are sustainable.		0.780	
I think, consumers should enthusiastically choose for sustainable alternatives		0.794	
I think, traditional food products are sustainable enough, care for the environment is not connected to do with the food products I buy.			0.583
I think, the sustainable food is simply accessible and easy to use.			0.590
Extraction Method used is Principal Component Analysis with Varin Normalization.	nax Rotation I	Method along with K	Laiser

Discussion

The aim of this research study was to identify the consciousness level about the sustainable food products among respondents and to understand that how they interpret the sustainable consumption with reference to the sustainable food, as well their attitude and the variables helping to mold their sustainable behaviour.

The awareness level in the surveyed consumers was quite satisfactory as 132 out of 161 (i.e. 82%) are aware about the sustainable food products. The important extract of the analysis from the respondents' demographic profile is that majority of respondents representing the youth i.e 20-39 years of age group. This cohort is either holding post-graduation degree or studying it. Above this, they are belonging to the middle or upper middle class. It indicates that youth is very well aware about the sustainable food and their education can be utilized to increase the scope of the importance of sustainability in the society.

Respondents have varied understanding and interpretation regarding sustainable products. Majority have interpreted sustainable products under four categories ie. For them sustainable products mean, "Organic food



products", "Environment friendly products", "Plant based food products", and the fourth one was, "Animal friendly products." Apart from these four, less percentage of respondents understood the meaning of sustainable as season food products, products made where child labour are not utilized, or fair trade food products, locally produced food products, products produced legally, without any unethical or harmful practices. This result gives the food for a thought that respondents may not explicitly understand or interpreted the significance of what sustainable food products actually are? As their knowledge is limited to "organic" or "environmentally" products only. A sustainable product is a product, which will give as modest impact on the environment as possible during its life cycle (Lennart Y. Ljungberg ,2007). This definition is in fact not completely defined according to the amount of impact on the environment or the nature. As we can be understood, there are many different features and information related to this definition. There are three areas of important issues (L.Y. Ljungberg, 2007) connected to sustainable product development: environment (Eco-system), Equity (equal distribution and use of natural resources) and, futurity (impact on future generation).

Another point to be noted is about the sources providing the information about sustainable food products as the current survey showing that the shop staff, family/friends, and TV shows are the major sources of information after their own experiences and knowledge. It suggested that effective source of information for sustainable products are word of mouth. It can be strengthening either by motivating existing users or even by activating other sources like NGOs, Detailed Product Labels, Consumer Organizations or even Government Institutions. The type and utilization of information is depending upon whether the buying situation is being done for the first time, or a repeat purchase, or a personalized rebuy (Varey 2002). The sources of information used by consumers differ from certain commercial and marketing communications such as websites, direct mail, messages, television advertising, and packaging; to subtler source will be as opinion leaders and word of mouth, which have the potential to be highly influential, but also less controllable (Pickton and Broderick 2005).

Main reasons for respondents to find sustainable products attractive are good quality, and followed by good for health. Some respondents found it better for safety concern too. But even after interpreting the sustainable product as "environment friendly Products" they didn't find it attractive as it is good for environment, this itself contradict their views. Higher percentage of respondents gets sustainable food products from various supermarkets or from the Natural food shops. It suggests that sustainable products are not easily available in the small shops, farmers' markets or even from internet. When, respondents have asked about the problems faced to get sustainable food products after High priced reason the frequently mentioned problem was lack of availability. Non- esthetic, difficult to preserve, inconvenient etc were followed by it. But the striking problems probed by respondents were, difficulty to change their existing food habits and difficult to trust the product producers or sellers. It asked for attention to improve the supply chain as well the authenticity of the producers/sellers.

A great part of respondents has shown their readiness to pay up to 5% more than the regular products, for sustainable food products, but still very less responses agreed to pay more than that or any price for it. Researchers have observed that the current study found that one of the major problem respondents have stated was the high cost of sustainable food products. It is showing that even after having positive attitude, well awareness and good reasons to buy sustainable food products but still the intentions are very weak to consume or to buy it. Thus, it is showing the difference between respondents' attitude and practicing to purchase sustainable food products. Results and practices are showing that sustainable organic food, products free from child labor, legally logged wood, and fair-trade products often have market shares of less than 1% (MacGillivray, 2000).

From the base of the literature (Farzana Quoquab, et al..2019), majorly few categories of variables have extracted, which were; satisfying basic needs, concern towards quality of life, care for environment wellbeing, taking life cycle approach, concern for future generations, Recycle, practical alternatives, products alternative and social responsibility. In the current study three variables have been identified: Concern for the food waste, Concern for recycling and environment and little contribution from awareness regarding their social responsibilities. This result suggested clearly that still enough attitude towards sustainable good consumption is not developed, which can help to understand the consumer behaviour pattern for sustainable food products.

Conclusion

Sustainable consumption and production are vital to achieving sustainable development, as highlighted in the United Nations' Sustainable Development Goal (SDG) 12. Sustainable consumption is based on consumer's decision-making process that takes the social responsibility into account and adding up to their individual requirements and desires (Meulenberg, 2003). As sustainable food consumption is an everyday consumption practices and so it is still profoundly driven by handiness, routine practice, value for money, personal fitness and wellbeing concerns, pleasure-seeking, and individual responses to social and institutional norms (SDC, 2003,; IGD, 2002a, 2002b; FSA, 2000), and, most importantly, they are likely to be resistant to change.

Current research affirmed that among the studied respondents, the young respondents are well aware about the sustainable food and well educated thus, their education can be helpful to increase the scope of the sustainability. They interpreted sustainable food as organic or environmentally products. Main motive for respondents to use sustainable products are its good quality, and reasons for good health. Major source is word of mouth but sustainable food products have restricted availability with the high price and asked for authenticity of supply chain.

This study addresses a key research gap by exploring sustainable food consumption in India, linking consumer behavior with sustainability goals. It enriches global and theoretical frameworks while offering practical insights for policy, education, and market strategies. The findings also open doors for future cross-cultural and interdisciplinary research. The empirical findings of the current study suggest that sustainable products can be endorsed to the wider audience through some specialized communication efforts that perceived lower

barriers to consumption. Although the collective interest in sustainability and sustainable food products is increasing and consumer attitudes also building positive but the behavioral patterns are not univocal consistently with their positive attitude but ambiguous with reference to the action. The study leaves the scope to explore various cohorts, region and time zone for the further study. further the scope of this study extends to a comparative analysis grounded in TPB (Theory of Planned Behavior), VBN (Value–Belief–Norm Theory), and Social Practice Theory to understand sustainable food consumption.

It further explores India's culturally rooted consumption patterns, benchmarks global best practices, and proposes region-specific, culturally aligned policy interventions. To support sustainable food habits in India, policy makers should emphasis on creation of eco-labels which are clear, and reliable by using third-party verification. Providing tax relief or grants for sustainable foods like millets and organic items, and including them in public food patterns, can help rise their reach. Awareness campaigns in local languages, especially through digital media, can inspire people to make eco-friendly choices. Additionally, food businesses should provide affordable sustainable products, align with local food ethnicities, and collaborate with farmers and NGOs. Being transparent about their environmental practices can also help gain consumer trust and promote lasting change.

References

Akenji, L., Bengtsson, M., 2014. Making sustainable consumption and production the core of sustainable development goals. Sustainability 6(2), 513-529.

Akenji, L., Bengtsson, M., Briggs, E., Chiu, A., Daconto, G., Fadeeva, Z., & Tabucanon, M. (2015). Sustainable consumption and production. A Handbook for Policymakers (Global Edition).

Alisat, S. and Reimer, M. (2015), "The environmental action scale: development and psychometric evaluation", Journal of Environment Psychology, Vol. 43 No. 3, pp. 13-23.

Annunziata A., Scarpato D. (2014): Factors affecting consumer attitudes towards food products with sustainable attributes. Agric. Econ. – Czech, 60: 353-363.

Biswas, A., & Roy, M. (2018). Sustainable consumption behavior of urban Indian consumers: An empirical examination. Journal of Cleaner Production, 198, 568–582.

Bogueva, D., Marinova, D. and Raphaely, T. (2017), "Reducing meat consumption: the case for social marketing", Asia Pacific Journal of Marketing and Logistics, Vol. 29 No. 3, pp. 477-500.

Bublitz, M. G., Peracchio, L. A., and Block, L. G. (2010). Why did I eat that? Perspectives on food decision making and dietary restraint. J. Consum. Psychol. 239–258. doi: 10.1016/j.jcps.2010.06.008

Cairns, G. (2019). A critical review of evidence on the sociocultural impacts of food marketing and policy implications. Appetite 136, 193–207. doi: 10.1016/j.appet. 2019.02.002

Carrus, G., Pirchio, S., and Mastandrea, S. (2018). Social-cultural processes and urban affordances for healthy and sustainable food consumption. Front. Psychol. 9:2407. doi: 10.3389/fpsyg.2018.02407

Cervellon, M.-C. and Carey, L. I. (2014), "Sustainable, hedonic and efficient: interaction effects between product properties and consumer reviews on post-experience responses", European Journal of Marketing, Vol. 48 No. 7/8, pp. 1375–1394



Clark, G., 2007. Evolution of the global sustainable consumption and production policy and the United Nations Environment Programme's (UNEP) supporting activities. Journal of Cleaner Production 15(6),492-498

DeCesaro, J. M., Allison, E. H., Clawson, G., Frazier, M., Gephart, J. A., Hicks, C. C., Nash, K. L., Williams, D. R., & Halpern, B. S. (2024). The distribution of environmental pressures from global dietary shift. Environmental Research Letters, 19(12), 124006.

Dhawan, V., Tanya, & Bhayana, S. (2023). Sustainable food consumption in India: A systematic review. The TJJPT, 44(4), 924

Donati, M., Menozzi, D., Zighetti, C., Rosi, A., Zinetti, A., and Scazzina, F. (2016). Towards a sustainable diet combining economic, environmental and nutritional objectives. Appetite 106, 48–57. doi: 10.1016/j.appet.2016. 02.151

European Commission (2016), "Green and Sustainable Public Procurement", available at: http://ec.europa.eu/environment/gpp/versus en.htm (accessed 7 September 2017).

Fang, Y., Cote, R.P., Qin, R., 2007. Industrial sustainability in China: practice and prospects for eco-industrial development. Journal of environmental management 83(3), 315-328.

Flaherty, S.-J., McCarthy, M., Collins, A., and McAuliffe, F. (2018). Can existing mobile apps support healthier food purchasing behaviour? Content analysis of nutrition content, behaviour change theory and user quality integration. Public Health Nutr. 21, 288–298.

Francis, A., & Sarangi, G. K. (2022). Sustainable consumer behaviour of Indian millennials: Some evidence. Current Research in Environmental Sustainability, 4, 100109.

FSA (Food Standards Agency), Qualitative research to explore public attitudes to food safety, Report prepared for the FSA by Cragg Ross Dawson Ltd. [online] [cited 13.06.2003] URL: http://www.food.gov.uk/multimedia/pdfs/qualitativerep. pdf, 2000.

Garg, P., Kumar, A., & Mittal, R. K. (2024). Sustainable food consumption behaviour: what really matters? International Journal of Sustainable Society

Goel, M., Nathavani, V., Dharaiya, S., Kothadia, V., Srivastava, S., & Bagler, G. (2023). Cultural context shapes the carbon footprints of recipes.

Hartmann, C., and Siegrist, M. (2017). Consumer perception and behaviour regarding sustainable protein consumption: a systematic review. Trends Food Sci. Technol. 61, 11–25. doi: 10.1016/j.tifs.2016.12.006

Hedin, B., Katzeff, C., Eriksson, E., and Pargman, D. (2019). A systematic review of digital behaviour change interventions for more sustainable food consumption. Sust. 11:2638. doi: 10.3390/su11092638

Hofmeister-Tóth, Á., Kelemen, K. and Piskóti, M. (2011), "Environmentally conscious consumption patterns in Hungarian households", Society and Economy, Vol. 33 No. 1, pp. 51–68.

Holotová, M., Horská, E., & Nagyová, Ľ. (2021). Changing patterns of sustainable food consumption regarding environmental and social impact-insights from Slovakia. Frontiers in Sustainable Food Systems, 5, 248.

IGD (Institute of Grocery Distribution), Consumer attitudes to "Eat the View": part two – store exit interviews, Report prepared for the Countryside Agency by the IGD, Letchmore Heath, Watford, Herts. [online] [cited 14.07.2003] URL: http://www.eat-the-view.org.uk/research/pdf/Consumer%20Attitudes%20%20Part%202. pdf, 2002a

IGD (Institute of Grocery Distribution), UK consumers put price before the environment, animal welfare and fair trade, Press release – 21.11.2002. [online] [cited 07.05.2003] URL: http://www.igd.com, 2002b.

Iris Vermeir; Wim Verbeke (2006). Sustainable Food Consumption: Exploring the Consumer "Attitude – Behavioral Intention" Gap., 19(2), 169–194. doi:10.1007/s10806-005-5485-3

Ivanova, D., Stadler, K., Steen-Olsen, K., Wood, R., Vita, G., Tukker, A., et al. (2016). Environmental impact assessment of household consumption. J. Ind. Ecol. 20, 526–536. doi: 10.1111/jiec.12371

Jonkutė, G., Staniškis, J.K., 2016. Realising sustainable consumption and production in companies: the SUstainable and RESponsible COMpany (SURESCOM) model. Journal of Cleaner Production 138, 170-180.

Kates, R., Parris, T.M. and Leiserowitz, A.A. (2005), "What is sustainable development?", Environment, Vol. 47 No. 3, pp. 9-21.

Kaur, J., Mogaji, E., Wadera, D., & Gupta, S. (2022). Sustainable consumption practices in Indian households: A saga of environment management linked to Indian ethos and generational differences.

Kirmani, A., et al. (2024). Green consumption and sustainable lifestyle: Evidence from India. Administrative Sciences, 14(10), 262.

Kong, W. H., & Zhang, X. (2022). Drivers of sustainable food purchasing: A comparison between Chinese and Indian millennials. *Sustainability*, *14*(7), 4184. https://doi.org/10.3390/su14074184

Kotebagilu, N. P., Bhatia, S., & Piramanayagam, S. (2023). A qualitative investigation on Indian vegan food service providers' perspectives of trends, challenges and the future of vegan consumption. International Journal of Gastronomy and Food Science, 34, 100824.

Kumar, D., Goyal, P., Rahman, Z., & Kumar, I. (2011). Sustainable consumption in India: challenges and opportunities. International Journal of Management and Business Studies, 1(3), 28-31.

Lennart Y. Ljungberg (2007). Materials selection and design for development of sustainable products., 28(2), 466–479. doi:10.1016/j.matdes.2005.09.006

Lozano, R., Ciliz, N., Ramos, T., Blok, V., Caeiro, S., 2015. Bridges for a more sustainable future: Joining Environmental Management for Sustainable Universities (EMSU) and the European Roundtable for Sustainable Production and Consumption (ERSCP) conferences. Journal of Cleaner Production 106, 1-2.

MacGillivray, A. (2000), The Fair Share, The growing market share of green and ethical products, London: New Economics Foundation.

Magrini, M. B., Anton, M., Chardigny, J. M., Duc, G., Duru, M., Jeuffroy, M. H., et al. (2018). Pulses for sustainability: breaking agriculture and food sectors out of lock-in. Front. Sustain. Food Syst. 2:64. doi: 10.3389/fsufs.2018. 00064

Manohar, H.L., Kumar, R.G., 2016. Impact of green supply chain management attributes on sustainable supply chains. International Journal of Supply Chain and Operations Resilience 2(4), 291-314.

Meadows, D.H., Meadows, D.L., Randers, J., Behrens, W.W., 1972. The limits to growth. New York 102, 27

Meulenberg, M. (2003), "Consument en burger, betekenis voor de markt van landbouwproducten en voedingsmiddelen [Consumer and citizen, meaning for the market of agricultural products and food products]," Tijdschrift voor Sociaal Wetenschappelijk onderzoek van de Landbouw 18(1), pp. 43–56

Moors, E.H., Mulder, K.F., Vergragt, P.J., 2005. Towards cleaner production: barriers and strategies in the base metals producing industry. Journal of Cleaner Production 13(7), 657-668.

Mungkung, R., Gheewala, S.H., Kanyarushoki, C., Hospido, A., Werf, H.V.D., Poovarodom, N., Bonnet, S., Aubin, J., Moreira, M.T., Feijoo, G., 2012. Product carbon footprinting in Thailand: A step towards sustainable consumption and production? Environmental Development 3(1), 100-118

Nguyen, N., Lobo, A. and Greenland, S. (2017), "The influence of Vietnamese consumers' altruistic values on their purchase of energy efficient appliances", Asia Pacific Journal of Marketing and Logistics, Vol. 29 No. 4, pp. 759-777.

O'Neill, B. C., Oppenheimer, M., Warren, R., Hallegatte, S., Kopp, R. E., Pörtner, H. O., et al. (2017). IPCC reasons for concern regarding climate change risks. Nat. Clim. Change 7, 28–37. doi: 10.1038/nclimate3179



Oates, Caroline; McDonald, Seonaidh; Alevizou, Panayiota; Hwang, Kumju; Young, William; McMorland, Leigh-Ann (2008). Marketing sustainability: Use of information sources and degrees of voluntary simplicity. Journal of Marketing Communications, 14(5), 351–365. doi:10.1080/13527260701869148

Omari, R., Frempong, G., & Wiafe, S. (2021). Understanding sustainable food consumption in Ghana: The role of culture, affordability, and local knowledge. *Food Security*, 13, 321–334. https://doi.org/10.1007/s12571-021-01154-1

Pickton, D., and A. Broderick. 2001. Integrated marketing communications. Harlow: Pearson. 2005. Integrated marketing communications. 2nd ed. Harlow: Pearson.

Quoquab, F. and Mohammad, J. (2016), "Environment dominant logic: concerning for achieving the sustainability marketing", Procedia – Economics and Finance, Vol. 37 No. 2, pp. 234-238.

Quoquab, F., & Mohammad, J. (2020). A review of sustainable consumption (2000 to 2020): What we know and what we need to know. Journal of Global Marketing, 33(5), 305-334.

Quoquab, F., Mohammad, J., & Sukari, N. N. (2019). A multiple-item scale for measuring "sustainable consumption behaviour" construct: Development and psychometric evaluation. Asia Pacific Journal of Marketing and Logistics.

Reisch, L. A., Cohen, M. J., Thøgersen, J. B., & Tukker, A. (2016). Sustainable consumption: research challenges.

Rock, M.T., Angel, D.P., 2007. Grow first, clean up later?: industrial transformation in east asia. Environment: Science and Policy for Sustainable Development 49(4), 8-19.

Sáez-Martínez, F. J., Gonzalez-Moreno, Á., & Hogan, T. (2020). Barriers to sustainable consumption in emerging economies: A study from Colombia and Mexico. *Sustainability*, *12*(8), 3124. https://doi.org/10.3390/su12083124

Sahu, S. (2025, May). Sustainable food: Indians are outpacing the developed world in adopting healthy eating habits. The Economic Times. Retrieved [Date] from Economic Times

Sargant, E. (2014). Sustainable food consumption: a practice based approach. Wageningen University and Research.

Schaefer, A., & Crane, A. (2021). Institutional trust and consumer responsibility in sustainable food systems: Evidence from the Nordic countries. *Journal of Business Ethics*, 174(2), 379–397.

SDC (Sustainable Development Commission), A vision for sustainable agriculture, URL: http://www.sd-commission.gov.uk/pubs/food2001/index.htm, 2003

Seiffert, M.E.B., Loch, C., 2005. Systemic thinking in environmental management: support for sustainable development. Journal of Cleaner Production 13(12), 1197-1202.

Simon-Kumar, R. (2022). 'Ecological determinants' of health in the global south: Practising sustainable consumption in Kerala, India. Global Public Health.

Singh.A, Sustainable Consumption and Production: A Consumer Perspective,' CUTS International, Jaipur, India

Skroupa, C. (2017, 11 July), "Sustainable development goals – room for companies to lead", Forbes, available at: https://www.forbes.com/sites/christopherskroupa/2017/07/11/sustainable-developmentgoals-room-for-companies-to-lead/#d79f6a91401d.

Sonestedt, E., Wirfält, E., Gullberg, B., and Berglund, G. (2005). Past food habit change is related to obesity, lifestyle and socio-economic factors in the Malmo Diet and Cancer Cohort. Public Health Nutr. 8, 876–885.

Spaargaren, G., 2011. Theories of practices: Agency, technology, and culture: Exploring the relevance of practice theories for the governance of sustainable consumption practices in the new world-order. Global Environmental Change 21(3),813-822.



Springmann, M., Godfray, H. C. J., Rayner, M., and Scarborough, P. (2016). Analysis and valuation of the health and climate change cobenefits of dietary change. Proc. Natl. Acad. Sci. U.S.A. 113, 4146–4151. doi: 10.1073/pnas. 1523119113

Staniškis, J.K., Arbačiauskas, V., Varžinskas, V., 2012. Sustainable consumption and production as a system: experience in Lithuania. Clean Technologies and Environmental Policy 14(6), 1095-1105.

UN (2016). Sustainable Development Goals Kick off with Start of New Year. https://www.un.org/sustainabledevelopment/blog/2015/12/sustainabledevelopment-goals-kick-off-with-start-of-new-year/ (accessed April 3, 2020).

Varey, R.J. 2002. Marketing communications. Principles and practice. London: Routledge

Vergragt, P.J., Dendler, L., Jong, M.d., Matus, K., 2016. Transitions to sustainable consumption and production in cities. Journal of Cleaner Production 134, 1-12.

Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. Ecological economics, 64(3), 542-553.

Vermeir, I., Weijters, B., De Houwer, J., Geuens, M., Slabbinck, H., Spruyt, A., ... & Verbeke, W. (2020). Environmentally sustainable food consumption: A review and research agenda from a goal-directed perspective. Frontiers in Psychology, 11, 1603.

Vermeir, I., Weijters, B., Geuens, M., Bergh, J. V. D., & de Pelsmacker, P. (2020). Sustainable food consumption: Exploring the consumer "attitude-behavior-gap". *Journal of Business Research*, 117, 557–570.

Wang, Chao; Ghadimi, Pezhman; Lim, Ming K.; Tseng, Ming-Lang (2019). A literature review of sustainable consumption and production: A comparative analysis in developed and developing economies. Journal of Cleaner Production, 206(), 741–754. doi:10.1016/j.jclepro.2018.09.172

World Food Programme / Indian Institute of Millet Research. (2025). Formative assessment on barriers and opportunities for improving millet consumption in India. Millets 2025 Stakeholders Summit Report. Hyderabad

Wright, L. T., Nancarrow, C., and Kwok, P. M. (2001). Food taste preferences and cultural influences on consumption. Br. Food J. 103, 348–357. doi: 10.1108/00070700110396321

Žabkar, V., Koklič, M. K., McDonald, S., & Abosag, I. (2018). Guest Editorial: In Search of Sustainable and Responsible Consumption. European Journal of Marketing, 52(3/4), 470-475.