

Health is wealth-eating for tomorrow: factors influencing purchase intention of plant-based diets in India

Anjali Chopra, Jennifer Jagose & Aparna Pandey

To cite this article: Anjali Chopra, Jennifer Jagose & Aparna Pandey (2025) Health is wealth-eating for tomorrow: factors influencing purchase intention of plant-based diets in India, Cogent Business & Management, 12:1, 2443567, DOI: [10.1080/23311975.2024.2443567](https://doi.org/10.1080/23311975.2024.2443567)

To link to this article: <https://doi.org/10.1080/23311975.2024.2443567>



© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



[View supplementary material](#)



Published online: 24 Dec 2024.



[Submit your article to this journal](#)



Article views: 958




[View related articles](#)



[View Crossmark data](#)

Health is wealth-eating for tomorrow: factors influencing purchase intention of plant-based diets in India

Anjali Chopra^a , Jennifer Jagose^b and Aparna Pandey^c

^aMarketing and International Business, K J Somaiya Institute of Management, Somaiya Vidyavihar University, Mumbai, India; ^bMarketing, K J Somaiya Institute of Management, Somaiya Vidyavihar University, Mumbai, India; ^cGeneral Management, K J Somaiya Institute of Management, Somaiya Vidyavihar University, Mumbai, India

ABSTRACT

Many people are shifting towards plant-based diets due to health and ethical considerations about climate change and animal welfare. Changes in dietary patterns are increasing rapidly in some countries, while this trend is just emerging in others. The present study reviews plant-based food adoption in India and identifies the critical factors that drive the purchase intention of plant-based food. The study applied an extended theory of planned behaviour, incorporating a multidimensional construct with subjective norms, environmental attitude, perceived behavioural control, social value, functional value, epistemic value, and health benefits. Environmental attitude was the most important factor, followed by health benefits and epistemic values. Social value positively influenced health benefits, indicating that consumers tried plant-based food based on recommendations by celebrities to gain approval from peers. However, after adoption, they realized the health benefits like better digestion, and reduced hormonal imbalance. Subjective norms were an insignificant factor indicating that adopting plant-based food was a personal choice without family/peer influence. Rather than focusing on meat-eating consumers only, marketers must consider vegetarian consumers and those looking to reduce meat consumption. Communication strategy by food brands and the gastronomy industry should focus less on animal welfare and nudge consumers to reduce animal product consumption due to the health benefits and overall impact on the environment.

ARTICLE HISTORY

Received 21 February 2024
Revised 4 November 2024
Accepted 12 December 2024

KEYWORDS



Sustainable consumption; plant-based food; environment conscious consumer; health benefits; SDG3

SUBJECTS

Environment and Health; Nutrition; Asian Studies

1. Introduction

Recent research on consumer behaviour (Buerke et al., 2017; Han, 2021; Pinkse & Bohnsack, 2021; Ruby et al., 2024; Zaman & Kusi-Sarpong, 2024) has suggested growing consumer awareness of the environment. Owing to escalating global environmental challenges such as pollution, global warming, and ecological degradation, environmentally sustainable consumption behaviour has been an essential topic in the consumer market and research (Lee et al., 2010; Suki & Suki, 2015; Verma & Chandra, 2018). While Sustainable Development Goals (SDGs) are an overarching global agenda for an improved environment ecosystem, SDG 3 seeks to ensure healthy lives and promote well-being through sustainable food systems (Fanzo, 2019). Owing to their concern for the environment, an increasing number of consumers strongly desire to buy plant-based products and are willing to pay a premium (Diamantopoulos et al., 2003). Plant-based foods include fruits, vegetables, grains, legumes, nuts, and seeds. Consumption of animal products, such as meat, dairy, eggs, and honey, is substantially reduced or removed entirely (Turner-McGrievy et al., 2015). Plant-based products are growing in popularity as customers become more aware of the impact of their food choices on the environment. This consumer behaviour and innovation shift favours plant-based products (Nielsen, 2021). Many consumers prioritize health, wellness, and social issues, translating them into more thoughtful purchasing decisions. 2020 was a significant year for

CONTACT Anjali Chopra  anjali.chopra@somaiya.edu  Marketing and International Business, K J Somaiya Institute of Management, Somaiya Vidyavihar University, Mumbai, India

© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

plant-based products (SPIN 2021). The sales of plant-based products were already growing before COVID-19, but after the pandemic, growth surged even more. Andreani et al. (2023) further stated that increasing awareness fuels the shift toward plant-based diets, with consumers consciously reducing meat consumption levels. The authors noted that the primary reasons for this transition were to minimize the harmful impacts of the food system on the planet and to improve the quality of living and animal welfare.

Environmental consciousness and sustainability are nascent concepts in South Asia. A few studies (Arora et al., 2020; Chawla, 2022; Guha & Gupta, 2020) discuss the market readiness of Indian consumers for plant-based diets. There is a substantial dilemma in the minds of Indian consumers, hindering them from shifting towards plant-based products. Resistance towards a plant-based diet stems from notions like one would have to give up on their favourite food or snacks, food would be bland, plant-based diet would lack sufficient nutrition, and eating out options would be restricted. Further, in the Indian context, milk is considered a vital source of protein among vegetarian consumers. A diet without milk and milk products like cottage cheese, butter, and clarified butter is unthinkable for most vegetarians. Most Indian households have curd and milk as their staple diet, while clarified butter and spices are used to temper pulses for taste and health benefits. In this context, organic dairy farming is seeing a rise in India, where producers raise animals on organic feed and restrict the usage of antibiotics and hormones (Oruganti, 2011).

Startup brands like Country Delight have found wide acceptance as they focus on delivering milk and milk products free of antibiotics and oxytocin (Kohli & Pant, 2018). Consumers opting for a plant-based diet cite health benefits, ethical considerations, and a reduced carbon footprint (Hwang et al., 2020). According to a report by Indian Brand Equity Foundation (IBEF, 2022), there is a growth in the consumption of plant-based food, which may be related to an increase in health-related problems and awareness of healthy alternatives. The Indian Government has also supported the industry with Eat Right India initiatives by the Ministry of Health and Family Welfare (MoHFW), which promotes healthy dietary choices and sustainable food, of which plant-based food is essential. India celebrated 2018 as 'The Year of Millets', while the Food and Agricultural Organization (FAO) has declared 2023 as the 'International Year of Millets' (Verma, 2019). Most millet crops are native to India and are popularly called Nutri-cereals. They are high in nutrition and dietary fibre and are good sources of vitamins, minerals, and proteins (Verma, 2019). The Indian government is focused on providing an affordable, healthy, and nutritious diet as one of its goals, and in this context, millets are considered 'future crops' (Gowda et al., 2022).

Given the discussion around environmental degradation, food scarcity, rising health concerns, and animal welfare, understanding the consumer mindset assumes significance in the Indian context. In countries with high meat consumption, plant-based meat alternatives have been one of the ways of reducing meat intake to improve health and animal welfare (Andreani et al., 2023). Studies in countries with significantly higher meat consumption have focused on accepting plant-based meat alternatives (*henceforth called PMBA*), suggesting that people who eat meat are more likely to consume PBMA (Bryant et al., 2019). The unnatural texture of plant-based meat has resulted in limited adoption; however, finding natural alternatives to meat, such as soy products, jackfruit, and tofu, and including more seeds in the diet is increasing (Mayo Clinic Staff, 2022). As PBMA become meat substitutes (Huang, 2022; Slade, 2023), unlocking the key to consumer mindscape becomes vital for accelerating adoption and acceptance. Hartman et al. (2018) suggested further investigations focusing on interventions and strategies to help motivate and nudge consumers towards 'pro-environmentally friendly meat consumption'. Most studies indicate that consumers who want to reduce meat consumption due to its adverse environmental or health impact seek plant-based alternatives. Meat reduction can be attained through several options, such as reducing meat portions, replacing meat products with plant-based alternatives, leaving meat out, and replacing meat with other protein sources like eggs/cheese (animal-based) or legumes, mushrooms, tofu (plant-based) or moving to a plant-based diet. In India, celebrities like Virat Kohli (leading Indian cricketer), known for his intense fitness workouts, switched from meat to a plant-based diet and highlighted the benefits of plant-based food on increased stamina, better gut health, and reduced sluggishness. This has created a buzz among Indian consumers. There is a need to study whether the buzz and hype around plant-based food has translated into reduced meat consumption and increased plant-based food consumption. With this context, the authors decided to study the attitudes, perceptions, and influence of various factors on the purchase intention of

plant-based food. This study investigates consumer preferences and values for plant-based food (includes meat alternatives, natural substitutes to meat like jackfruit and soybean-based products, cashew/almond/soy milk as milk substitutes, and increased intake of fruits, vegetables, pulses, and millets) using an extended theory of planned behaviour (Ajzen, 1985). The study revealed that environmental attitude, epistemic value, and health benefits influenced the intention to purchase plant-based food. Social value positively influenced health benefits, indicating that initially, consumers tried plant-based food to fit into the growing trend, gain approval from their peers, and follow health and fitness influencers. Top professional tennis player Novak Djokovic (Gaba, 2023) switched to plant-based food, debunking the popular myth that plant-based diets are low in protein (Buro, 2020). The present research provides specific insights to marketers of various plant-based foods, including plant-based meat alternatives, millet, plant-based milk (almond/oats/cashew), and high protein products like soybean and tofu. Marketers have focused on converting meat eaters to plant-based food, and their communication has focused on animal welfare. In other cases, marketers have highlighted the protein content of the plant-based meat alternative. Rather than focusing on meat-eating consumers only, marketers must consider vegetarian consumers and those looking to reduce meat consumption. Rather than confining communication around animal welfare and higher protein content, communicating specific health benefits of plant-based food to relevant target audiences (reduced hormonal issues for women, reduced inflammatory bowel disease, increased energy among Generation Z, etc.) would result in higher adoption of plant-based food.

2. Literature review

2.1. Plant-based diets

Plant-based diets constitute a diverse range of dietary patterns that emphasize foods derived from plant sources coupled with lower consumption or exclusion of animal products. Vegetarian diets form a subset of plant-based diets, which may exclude consuming some or all forms of animal food (World Health Organization [WHO], 2021). A diet predominantly plant-based and low in sodium content, saturated fats, and added sugars is recommended as part of a healthy lifestyle (Willett et al., 2019). Plant-based diets increase the quality of life and help mitigate adverse environmental impacts associated with high consumption of animal-sourced foods such as meat and dairy products (Godfray et al., 2018). Animal food production is associated with significantly higher carbon emissions than plant foods such as fruits and vegetables, grains, legumes, nuts, and seeds (Springmann et al., 2018). As per the WHO report (2022), several studies suggest that unprocessed and processed red meat are consistently associated with diseases like high cholesterol, high blood pressure, etc. Switching to a plant-based diet not only improves overall health but also helps the environment by reducing biodiversity loss (Tilman et al., 2017).

2.2. Plant-based diet and sustainable development goals

The Sustainable Development Goals (SDGs) serve as the primary global framework for measuring progress towards sustainable development over the next 15 years and contain ambitious targets for food security, nutrition, health and well-being, climatic stability, and sustainable consumption (Fanzo, 2019). Rethinking food production and consumption practices based on traditional knowledge results in high social and cultural food values increases farmers' productivity, and aids sustainability (Duurzaam, 2019). From a consumption practice perspective, the adoption of plant-based diets aids sustainability. A plant-based diet enhances general health and well-being (Bhatia et al., 2021), thereby addressing Sustainable Development Goal 3 (*ensure healthy lives and promote well-being for all at all ages*) (United Nations, 2024). A plant-based diet significantly reduces environmental influences, including greenhouse emissions, global acidification, and water use (United Nations Climate Change, 2021). However, motivating people to switch to plant-based diets is challenging because many have a psychological attachment to meat (Graça et al., 2015). Consumers are unwilling to give up meat or reduce meat consumption as they believe eating meat is socially acceptable, naturally occurring, and hedonistically satisfying (Piazza et al., 2015).

2.3. Changing consumer behavior towards food

A paradigm shift has occurred in how people approach and consume food. People have recently begun paying more attention to what they eat for two significant reasons: maintaining a healthy lifestyle and making the planet more sustainable (Mani, 2022). The food service industry has acknowledged and responded to their contribution to climate change (Lund-Durlacher & Gössling, 2021) and global environmental problems (Fieschi & Pretato, 2018).

Most consumers eat meat because it allows them to sample and savour various delights (ET HealthWorld, 2022). Furthermore, meat consumers frequently find plant-based food or vegetarian food lacking the tangy and lip-smacking flavours and textures of meat products. Generation Z and millennials are becoming more selective regarding the products, brands, and food they consume. Today, customers consciously choose products sourced ethically and cultivated with minimal adverse environmental effects. The growing acceptance of plant-based food and meat alternatives is one of the most obvious signs of this fundamental shift in consumer behaviour (Elkin, 2021). Further, the report predicted that the growth of plant-based food would multiply fivefold by 2030 due to the rising demand for sustainable products.

2.4. Plant-based meat alternatives

Despite being rated more favourably, plant-based meat alternatives (*henceforth called PBMA*) faced impediments in their adoption, namely, the perception around their taste, texture, and price (Szenderák et al., 2022). Thus, environmental and health-related factors alone are not sufficient. Pointke et al. (2022) reported that vegans preferred PBMA more than individuals following an omnivorous diet in their study among German consumers. The prediction and promotion of plant-based meat consumption have been the subject of many studies. Carfora et al. (2022) suggested that the intention to eat PBMA preceded a positive attitude and an understanding and awareness of its consequences on the environment.

Further repeated messages increased the positive attitude and willingness to pay for the same. Hoek et al. (2013) suggested that repeated consumption and exposure to PBMA may shift consumer perceptions, opinions, and attitudes. A study by Rosenfeld et al. (2022) revealed that if PBMA were marketed as 'vegan' or 'vegetarian', consumer behaviour was more positively inclined towards adapting them as sustainable options. Another study by White et al. (2022) adopted the Social Practice theory on PBMA practices. It explored the influence of materials (products, packaging, and infrastructure), meanings (values, normalization, social consumption, transition, and convenience), and competencies (general and meat-free cooking practices and product and nutritional knowledge).

Seo et al. (2023) looked at the effect of positive and negative reasoning variables on purchase decision-making for PBMA using Behavioral Reasoning Theory. Extending the Theory of Planned Behaviour, Bakr et al. (2023) explored factors affecting attitudes toward plant-based meat alternatives. The study observed differences in respondents from different countries concerning the environment, the welfare of animals, and health consciousness. Other factors influencing food choice were sensory appeal, sustainability, health, cruelty-free, attachment to meat for consumption, and food neophobia. Siddiqui et al. (2023), in their research to better understand the motives and drivers of consumers' acceptance of PBMA, emphasized various factors such as healthiness, taste, familiarity, attitudes, social norms, food neophobia, and digestion. Habib et al. (2024) stated that the adaptation of vegan food was significantly affected by personal, social, contextual, ethical, and moral reasons. A comprehensive meta-review (Onwezen & Dagevos, 2024) mapped potential drivers: capability (awareness and taste), opportunity (environmental redesign including redesigning recipes, visibility, and portion sizes), and motivation (motives and emotions). Interestingly, motivational and opportunity drivers were the most important.

Varela et al. (2022) compared consumers from different countries in their shift to plant-based diets and stated that reasons underlying food choices included food representations, culture, and traditions. Improved health and sustainable food choices motivated the shift towards plant-based diets. Van Trijp and Van Kleef (2008) reported that visible changes in consumer behaviour toward food products were governed by the target users' perceived meaningfulness or usefulness and the uniqueness and novelty of the food product. According to research by Bauerné Gáthy et al. (2022) on university students, self-interest dominated their decisions for food consumption rather than socially responsible behaviour.

They were more aware of health benefits and were inclined towards health consciousness rather than being environmentally conscious consumers. Another study on young adults (Ledikwe et al., 2020) implied that in fast-food spaces, product involvement facilitates word-of-mouth (WOM) and promotes the spread of e word-of-mouth (eWOM). Li & Jaharuddin (2021) espoused that word-of-mouth played a role in organic food purchase decisions when individual, social, and information perspective factors influenced purchase intention.

Numerous empirical studies have explored the influence of various factors like perceptions, food choice motives, attitudes, sensory attributes, segmentation, socio-demographics, information, knowledge, branding, food labels, meat attachment factors, and planned behaviour (Baum et al., 2022; Bryant & Sanctorem, 2021; Waehrens et al., 2023; Wang & Scrimgeour, 2021). The psychosocial drivers associated with eating PBMA have been studied (Carfora et al., 2022), while others have explored the theme of food neophobia (Siddiqui et al., 2022; Siegrist & Hartmann, 2020). Szenderák et al. (2022) focused on consumer acceptance and adoption of PBMA, with factors like environment, health, and willingness to pay being key drivers. Social and sociocultural contexts have been the focal point of many studies regarding PMBA (Fra, 2023; Mahasuweerachai et al., 2023; Markowski & Roxburgh, 2019; Onwezen et al., 2019, 2021). Health beliefs influence individuals' dietary choices and patterns (Ewers et al., 2021; Williams et al., 2023) and decision-making (McNamara & Wood, 2019). Consumer identity, online brand trust, social influence, and perceived value influence consumer behaviours (Teangsompong & Sawangproh, 2024). Social media (Rini et al., 2023) was an effective driver for spreading information regarding plant-based products, thus influencing purchase intentions.

2.5. Cross-cultural studies

A cross-cultural comparison (Runte et al., 2024) of the United States, Switzerland, and India on plant-based food revealed that while the U.S. discourse focused on (meatless) recipes, lifestyle and prices were added to the Indian discourse. The Swiss discourse, on the other hand, concentrates on meat (replacement), prices, and sustainability. Comparative studies across the globe revealed significant differences among consumers in Canada and Kuwait (Bakr et al., 2023). Canada and Kuwait reported substantial differences in the strength of the effect of attitude and behavioural control on purchase intentions. Rini et al. (2022) studied European consumers and their pro-meat reduction attitude and purchase intention to find that low acceptance was due to an information deficit that could be alleviated by using social media for information dissemination. Wang et al.'s (2024) web-based survey with respondent samples from New Zealand (N.Z.) and the United Kingdom (U.K.) looked at the influence of consumers' innovation-adoption characteristics (IACs) on trust and purchase intentions. The results showed higher trust and intention to purchase plant-based products over cultured ones. Wang and Scrimgeour (2021) explored drivers of consumers' willingness to consider plant-based diets in China (an Asian country) and New Zealand (a Western-developed country). Chinese and New Zealand consumers reported differences in the level of impact of the meat attachment factors (Hedonism, Affinity, Entitlement, and Dependence) and the Theory of Planned Behaviour factors (Subjective norms, Personal norms, Perceived behavioural control, and Attitudes) on the willingness to adopt a more plant-based diet.

The present literature review suggests that most of the research conducted so far has been in countries/regions with high meat consumption (China, Canada, United States, Europe, New Zealand, and Kuwait). The studies identified environmental and animal cruelty concerns, health benefits, taste, meat attachment, food neophobia, sensory attributes, social norms, attitude, perceived behavioural control, and others, significantly impacting willingness to consume plant-based food, or PBMA. India has a significant population that consumes vegetarian food. Most vegetarians believe that they consume plant-based food without realizing that dairy (animal source) is a considerable part of their diet. In this context, understanding the mindset of Indian consumers towards plant-based food is a hitherto under-researched topic. There was a lack of empirical studies investigating the influence of various factors on Indian consumers' attitudes and perceptions towards a predominantly plant-based diet. The current research extends the Theory of Planned Behaviour. It proposes a multidimensional construct that includes subjective norms, environmental attitudes, perceived behavioural control, social value, functional value, epistemic value, and health benefits. Social values and health benefits have been part of earlier studies independently (Runte et al., 2024; Szenderák et al., 2022) but have not been

studied together empirically. As stated, most studies focused on American and European countries, with little focus on South Asian countries. While the region is a growing market for plant-based food (Szenderák et al., 2022), there is a lack of consumer-related insights to address the existing knowledge gaps.

The present study focuses on plant-based foods and proposes an integrated model that explains factors that impact Indian consumers' purchase intention for sustainable plant-based food.

3. Theoretical framework

As postulated by Ajzen (1991), the Theory of Planned Behavior (TPB) is used to understand consumers' behavioural intentions. The TPB comprises attitude, subjective norms, and perceived behavioural control. This suggests that intentions result from an individual's attitudes, and a person's perception of behaviour under the influence of society defines subjective norms (Nekmahmud & Fekete-Farkas, 2020; Verma & Chandra, 2018). Consumption value refers to consumers' overall evaluations of the utility of the goods and services they purchase and use (Hänninen & Karjaluoto, 2017; Sheth et al., 1991). Researchers have used the theory of Consumption Values to characterize a variety of products or services (Ramkissoon et al., 2009; Tanrikulu, 2021) consisting of five consumption values: functional value (price and quality), social value, emotional value, epistemic value, and conditional value.

Environmental attitude (E.A.) is a 'cognitive and emotive judgment of the target of environmental preservation' (Bamberg, 2003). Subjective Norm (S.N.) denotes the perceived social pressure experienced by a person to perform specific actions or behaviours (Ajzen & Fishbein, 1980). Perceived ease or difficulty in carrying out a particular behaviour is known as perceived behavioural control (PBC) (Ajzen, 1991; Ajzen & Fishbein, 1980). Functional value (F.V.) is the perceived usefulness derived from an alternative's capability for a product's functional, utilitarian, or physical performance (Sheth et al., 1991). Price and quality comprise two aspects of functional value (Sweeney & Soutar, 2001) and are identified as the key determinants of consumer purchasing decisions (D'Souza et al., 2007; Nekmahmud, 2024). Social value (S.V.) relates to self-image and the perceived utility of goods or services (Sheth et al., 1991). The epistemic value (EpV) is the perceived utility derived from an alternative's ability to pique interest, offer novelty, and satiate the thirst for knowledge (Sheth et al., 1991). The main drivers for adopting a plant-based diet are identified as the health benefits of a plant-based diet, specifically, the decrease in body fat and obesity rates, the increased presence of vital nutritional components, and lowered risk factors for diseases (Fehér et al., 2020). Functional value (F.V.) emphasizes performance and functionality as well as the financial gain or utility that a good or service offers (Zainuddin et al., 2013). All modern definitions of health acknowledge that health value (H.V.) goes beyond the absence of disease and denotes a person's full ability for self-realization and self-fulfilment. Health is the relative state in which one can function adequately physically, socially, and mentally (Svalastog et al., 2017).

The result of these components is the purchase intention for plant-based foods. An individual's attitude often influences their behaviour, even though it is mediated by purpose (Ajzen & Fishbein, 1980; Leonidou & Leonidou, 2011; Limbu et al., 2012). Consequently, an individual's favourable impression triggers purchasing intent, but negative intent reduces the possibility of the act (Punyatoya, 2015).

Based on the literature and theoretical background, a hypothesized conceptual model of sustainable plant-based product consumption is proposed (Figure 1).

- H1: Environmental Attitude has a positive influence on Intention to Purchase Plant-Based Food
- H2: Subjective norms positively influence the intention to purchase plant-based foods.
- H3: Perceived behavioural control negatively influences the Intention to Purchase Plant-Based Food.
- H4: Functional value (quality) positively influences the intention to purchase plant-based foods.
- H5: Epistemic value positively influences the Intention to Purchase Plant-Based Food.
- H6: Social value has a positive influence on Health value
- H7: Health benefits positively affect the Intention to Purchase Plant-Based Food.

3.1. Research methodology

The research was conducted in two stages: qualitative and quantitative. KJ SIM Ethics Committee, KJ Somaiya Institute of Management, Somaiya Vidyavihar University, Mumbai, India, cleared the study.

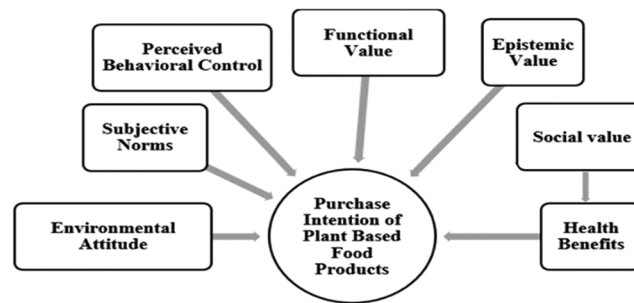


Figure 1. Proposed conceptual model by authors.

Participants were informed about the study's objective at the start of the in-depth interviews and survey. Participants were told at the beginning of the interview/survey that the data they shared would be used for academic research, and if they were unwilling, they could opt out of the interview/survey. The consent form was verbal, and the participants were allowed to opt-out. The nature of the study did not include any sensitive or confidential information and was focused on understanding attitudes and preferences for plant-based diets. The authors initially conducted a qualitative study using in-depth interviews with 12 early adopters of plant-based food to understand their perspectives on the various constructs of the proposed theoretical framework. The multidimensional construct, including subjective norms, environmental attitude, perceived behavioural control, social value, functional value, epistemic value, and health benefits, was part of the discussion. Respondents were probed around the various constructs by asking about their attitudes, preferences, and reasons for adopting plant-based food. Some of the key findings from the in-depth interviews are summarized below.

- Reason for adopting plant-based food - Plant-based products are environmentally friendly, which helps reduce the carbon footprint and helps to preserve natural resources.
- Respondents opined that novel and exciting fact-based information regarding plant-based foods should be widely available to encourage purchase decisions. Respondents wanted information on recipes (legumes, mock meat, millet, quinoa).
- Health benefits were another primary reason for adoption. Post-COVID-19, awareness of the impact of the environment on people's health, coupled with a preference for locally available plant-based food and organic food, was cited as the main driver. Health benefits lowered disease risk factors (Fehér et al., 2020).
- Respondents stated bloating, poor digestion, and lethargy as prime reasons for switching to plant-based food.
- Respondents also stated that adopting plant-based food helped them gain social approval, especially among environment-friendly people and nature conservationists' peers.

The authors used inputs from qualitative research to design the questionnaire. The questionnaire was divided into the following three sections—(1) socio-demographic characteristics (e.g. gender, age, education level, and current citizenship/residence/nationality), (2) questions related to awareness and reasons for preferring plant-based foods, and (3) factors influencing purchase intention. The demographic data included nominal and ordinal scales, whereas the rest of the questions were 5-point Likert scales ranging from 'strongly agree' to 'strongly disagree' (1=strongly agree and 5=strongly disagree). Variables were defined based on subjective norms, perceived behavioural control, and environmental attitude from the theory of planned behaviour, social value, epistemic value, and health benefits. The dependent variable was the purchase intention of plant-based foods. The dependent variable was composed of two variables: I am willing to consume plant-based foods, and I plan to choose plant-based foods for my diet. A total of 30 items were measured: 3 items of subjective norms (Ajzen, 1991; Al-Swidi et al., 2014), 4 items of environmental attitude (Ajzen, 1991; Honkanen et al., 2006), 5 items of perceived behavioral control (Ajzen, 1991; Al-Swidi et al., 2014), 4 items of functional value (Sweeney & Soutar, 2001), 4 items of social value (Sweeney & Soutar, 2001), 3 items of epistemic value (Roh et al., 2022), 5 items of health benefits (Rana & Paul, 2012; Sweeney & Soutar, 2001) and 2 items of purchase intention (Ajzen, 1991; Al-Swidi

et al., 2014; Teng & Wang, 2015). The authors pre-tested the questionnaire among 10 respondents to check whether the items were clearly understood. Naumann and Giel (1995) stated that there are no specific rules for determining the sample size for pre-testing, and hence, a sample of 10 pilots was found to be adequate by the authors. The questions' content, the questionnaire's sequence, the form and layout, ease of understanding, etc., were checked. The authors ensured that the pre-test respondents had similar characteristics to those included in the survey (Diamantopoulos et al., 1994). Participants in the pilot study were excluded from the final survey.

3.2. Data

The target group consisted of respondents aged 21–55 living in urban areas. Organic food, plant-based food, etc., are urban-centric phenomena in India. Also, since plant-based foods are relatively expensive, the authors focused on the age group of 21 years to 55 years. This was because, at 21 years old, most people in India pursue their post-graduation studies and tend to stay away from their family/hometown, giving them the freedom to pursue their own food choices. Also, the authors did not consider the age group above 55, as these people retire from active work and are less likely to be aware of plant-based food. Males and females were almost equally divided. The respondents reported diverse food preferences. The reason for considering non-vegetarian, eggitarian, and those wanting to reduce their non-vegetarian consumption was to get a more nuanced and detailed view of the attitude, perception, and willingness to adopt plant-based food among a wider audience.

Further details are provided in Table 1. Purposive sampling employing a combination of judgment sampling and quota sampling was used to establish contact with the participants. The authors relied on judgment sampling and quota sampling since plant-based food is a nascent concept in India, and most vegetarians assume they are following a plant-based diet without realizing that milk is sourced from animals. Hence, milk and milk additives like curd, butter, and cottage cheese do not qualify as plant-based food. Judgment sampling helped the authors interview early adopters of plant-based food and consumers who were aware of it and keen to try it. Both these groups were identified from their reference groups. Early adopters shared references from people willing to try plant-based food, which helped boost the sample. The authors used quota sampling to get views of older age groups and vegan consumers through references. The data collection period was from February to April 2022. Due to the Omicron variant of Covid 19, most parts of the country went into lockdown mode, and hence, a self-administered questionnaire was distributed through references over 12 weeks. The authors contacted the respondents via personal emails, phone calls, and Instagram messengers. After understanding the study's objective, the authors shared the Google form with respondents who agreed to be part of the survey. A total of 365 responses were collected. The authors checked the responses thoroughly for errors and incompleteness. Invalid responses and incomplete forms (more than 30% incomplete) were discarded. The final usable sample size was 310, which was used for further analysis.

Before administering the questionnaire, participants were informed of the concept of plant-based foods since the awareness of such a diet is limited to specific segments of society. The participants were further asked whether they considered or had purchased alternative organic, plant-based, and locally sourced food. If they answered yes, they were given access to further questions.

3.3. Data analysis

The data analysis was split into univariate, bivariate, and multivariate analyses using the statistical package SPSS Version 26. SPSS was used to identify missing values, run frequency tables (univariate analysis), check for correlation (bivariate analysis), and conduct reliability analysis (multivariate). The demographic information was summarized using univariate analysis. Refer to Table 1 for details.

The mean rating of the 30 items included in the multi-construct framework revealed the scores in Table 2.

The mean scores revealed that consumers have a higher level of agreement regarding their attitude towards the environment (mean score reduce carbon footprint = 2.35, purchase environment-friendly = 2.36, conserve natural resources = 2.38) and would like to consume plant-based food (mean score =

Table 1. Demographic profile and other details.

Variables	Number	Percentage
Gender		
Male	136	44%
Female	174	56%
Age		
21–25 years	175	56.5%
26–35 years	57	18.5%
36–45 years	24	7.7%
46–55 years	54	17.3%
Food preference		
Vegetarian (includes milk)	98	31.5%
Non vegetarian	131	42.3%
Eqgetarian (no meat, only eggs)	44	14.3%
Plant-based food only	20	0.62%
Want to reduce non-vegetarian consumption	34	11 %
Awareness of Plant-based food		
Never heard of it	9	3%
Heard a little but not sure how it is different from vegetarian food	68	22%
Heard and seen at shopping malls and online	133	43%
Aware and tried	99	32%
Awareness of Products		
Mock meat	95	31%
Almond milk/soy milk/cashew milk	98	32%
Vegan milk/vegan cheese	124	40%
Vegan eggs (mixture of moong sprouts and soybean)	60	19%
Prefer to try Plant-Based Food		
At restaurants	177	57%
Buy product and bring it home	133	43%
Price Perception		
Reasonable and value for money	24	7.7%
Worth it though slightly higher price	162	52.4%
Unnecessarily expensive	124	39.9%
Frequency of Purchase		
Daily		
Once a week	16	5
Once a fortnight	43	14
Once a month	96	31
Never	155	50

2.43). On the other hand, their level of agreement for social value items was neutral (good impression on others = 3.17, social approval = 3.27, follow celebrities and sports stars = 3.49). The mean scores indicated a higher level of agreement on most items but failed to reveal which construct had the most impact on purchase intention.

Table 4, which depicts the correlation between constructs, revealed a significant correlation between all the independent and dependent constructs (purchase intention); however, it failed to establish the order of importance. Notably, correlation considers the relationship between two constructs without considering the effect of other constructs.

A confirmatory factor analysis (CFA) followed by structural equation modeling (SEM) using AMOS 24 was conducted to quantify the relationship among the multiple constructs. CFA was used to estimate the eight latent dimensions: environmental attitude, subjective norms, perceived behavioural control, functional, social value, epistemic value, health value, and purchase intention. Their respective observed variables measured each of these latent constructs. The final CFA model demonstrated an acceptable overall fit with the following indices (Hair et al., 2014). CMIN/df = 1.914; ≤ 2.0 (or 3.0 or even 5.0) considered acceptable; CFI = 0.90 CFI > 0.90 considered average, > 0.95 considered good; GFI = 0.88 GFI > 0.90 considered good; TLI = 0.89 TLI > 0.90 good, RMSEA = 0.075 RMSEA ≤ 0.08 considered good.

The measurement model was assessed for convergent validity by examining the factor loading, average variance extracted (AVE), and composite reliability (C.R.). Average Variance Extracted (AVE) values were more than the threshold of 0.5, and composite reliability was more than 0.7 (Hair et al., 2013). Internal reliability was measured using Cronbach's alpha. The Cronbach alpha for all the items was greater than 0.7.

Table 3 provides details of the reliability and validity measures. Discriminant validity was tested using AVE analysis (Table 4). Discriminant validity of the construct is achieved when the square root of the AVE is greater than the correlation between the constructs (Fornell & Larcker, 1981).

Table 2. Mean rating of all items.

Construct	Mean rating
ENVIRONMENT ATTITUDE (E.A.)	
EA1: I am favorable to purchasing environmental-friendly plant-based products	2.36
EA2: I feel much better about myself when I purchase environmental- friendly plant-based products	2.58
EA3: It is worth switch to environmental-friendly plant-based products as it will help in conserving natural resources	2.38
EA4: Use of plant-based products will reduce my carbon footprint, hence environmental pollution	2.35
SUBJECTIVE NORMS (S.N.)	
SN1: My family supports me to purchase plant-based products	2.72
SN2: My friends support me to purchase plant-based products	2.77
SN3: Those important to me support my decision to plant-based products	2.65
PERCEIVED BEHAVIORAL CONTROL (PBC)	
PBC1: I have enough information to identify and purchase plant-based products	2.82
PBC2: I have enough information to locate plant-based products	2.83
PBC3: I prefer to consume plant-based products	3.04
PBC4: I can afford a slightly higher price to consume plant-based products	2.87
PBC5: I have easy access to plant-based products	2.88
FUNCTIONAL VALUE (FVq)	
FVq1: I buy plant-based products due to their longer shelf-life	3.49
FVq2: I think plant-based products are tasty	3.11
FVq3: I think plant-based products offer a variety of options	3.02
FVq4: I think the plant-based products are of good quality	2.61
SOCIAL VALUE (S.V.)	
SV1: I think buying plant-based products helps me fit into the trend	3.11
SV2: I think purchasing plant-based products creates a good impression on others	3.17
SV3: I think purchasing plant-based products gives me social approval and respect	3.27
SV4: I follow plant-based food tips and diets that celebrities/sports stars follow	3.49
EPISTEMIC VALUE (EpV)	
EpV1: Before buying a plant-based product, I would gather sufficient information about the various brands and variants of that product	2.43
EpV2: Before buying a product, I am willing to seek out novel information about plant-based products and diets	2.45
EpV3: Before buying a plant-based food product, I like to search for new and different information about products	2.52
HEALTH VALUE (H.V.)	
H.V. 1: I think that plant-based products will help me lose weight	3.08
HV 2: I think that plant-based products help boost my metabolism	2.84
HV 3: I feel plant-based products are easier to digest, leading to less bloating	2.67
HV 4: I feel plant-based products will help me with any hormonal problems	2.89
HV 5: I think that plant-based products are a guilt-free indulgence	2.85
PURCHASE INTENTION (P.I.)	
P.I. 1: I am willing to consume plant-based products	2.43
P.I. 2: I plan to choose plant-based products in my diet	2.73

Table 3. Reliability and validity measures.

Measures	Composite reliability	Average variance extracted	Cronbach alpha
Health benefits	0.97	0.66	0.9
Epistemic value	0.89	0.73	0.90
Social value	0.78	0.5	0.88
Functional value	0.91	0.52	0.76
Perceived behavioural control	0.78	0.49	0.74
Subjective norms	0.93	0.83	0.91
Environment attitude	0.91	0.72	0.90
Purchase intention	0.87	0.77	0.85

The final CFA model was then modelled using Structural Equation Modelling (SEM). SEM created a path diagram to find the causal relationship among the various constructs. Figure 2 shows the final model with the exogenous constructs, environmental attitude, subjective norms, perceived behavioural control, social value, epistemic value, functional value, and health benefits. The endogenous construct is the purchase intention of plant-based food. The results are given in Tables 5 and 6.

Table 4. Average variance extracted discriminant validity measures.

	Environment attitude	Subjective norm	Perceived Beh. Ctrl	Social value	Epistemic value	Health benefit	Functional value	Purchase intention
Environment attitude	0.85							
Subjective norm	0.69**	0.91						
Perceived Beh. Ctrl	0.56**	0.64**	0.70					
Social value	0.35**	0.37**	0.50**	0.71				
Epistemic value	0.31**	0.34**	0.27**	0.29**	0.85			
Health benefit	0.40**	0.38**	0.41**	0.67**	0.53**	0.81		
Functional value	0.41**	0.45**	0.65**	0.63**	0.46**	0.63**	0.72	
Purchase intention	0.7**	0.54**	0.57**	0.49**	0.43**	0.57**	0.49**	0.88

Note: The numbers in bold in the diagonal are the square root of the average variance extracted from each construct. **Correlation between constructs; Significant at 5% level of significance.

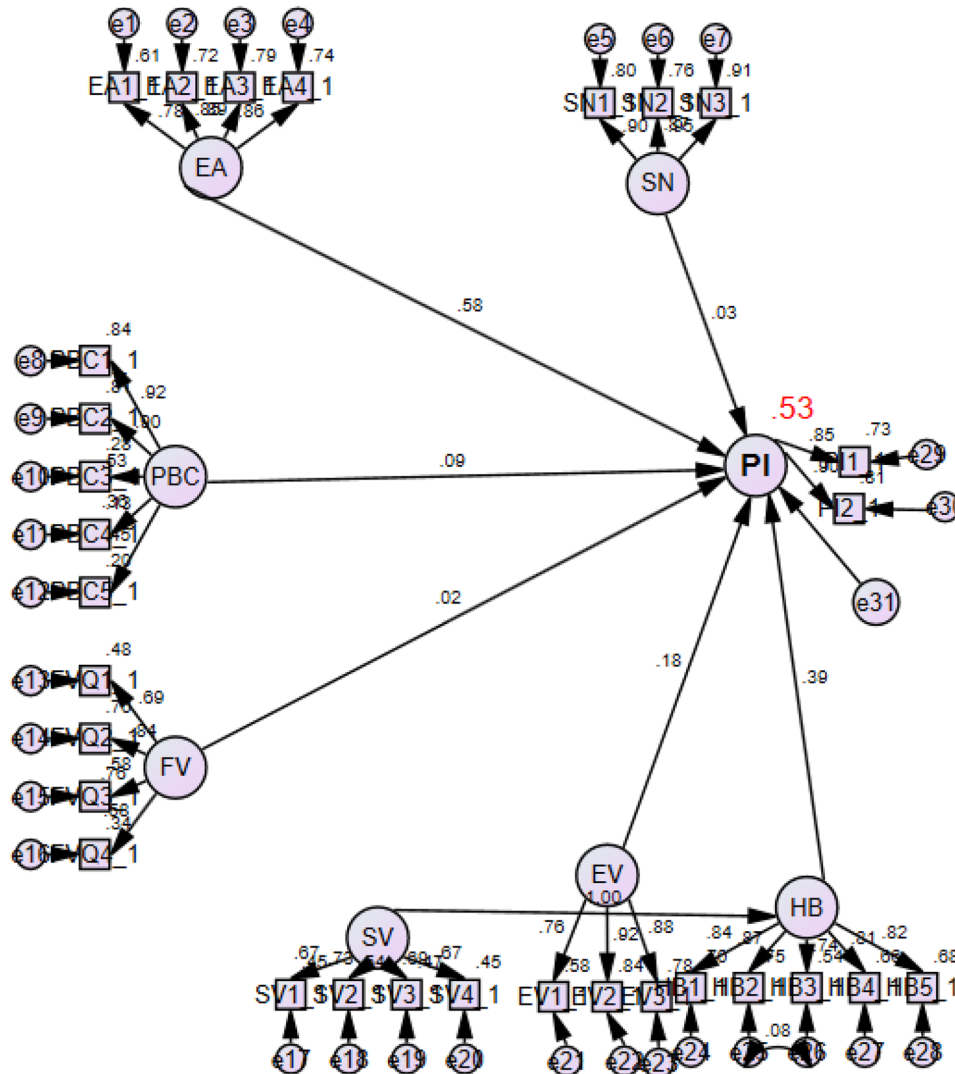


Figure 2. Structural equation modelling.

3.4. Model analysis

The maximum likelihood algorithm with AMOS 24 was used to estimate the measurement and structural models (Moser, 2015). The hypotheses were tested using standardized regression coefficients, p-values, and squared multiple correlations, representing the proportion of the variance of the dependent variable that can be explained by the explanatory factors (Byrne, 2016).

Concerning Figure 2 and Table 6, the regression weights reveal the following.

Table 5. Regression weights.

		Estimate	S.E.	C.R.	<i>p</i>
HB	<— SV	1.292	.137	9.459	***
PI	<— SN	.022	.056	.388	.698
PI	<— EA	.634	.089	7.150	***
PI	<— PBC	.150	.110	1.368	.171
P.I.	<— FV	.031	.107	.292	.770
PI	<— E.V.	.160	.060	2.652	.008
P.I.	<— H.B.	.328	.061	5.370	***

Table 6. Hypothesis and its effect.

Hypothesis	Hypothesized effect	Standardized regression coefficient	<i>p</i> -Value	Decision
H1	Environmental attitude has a positive influence on the Intention to Purchase Plant-Based Food	0.58	0.000	Supported
H2	Subjective norms have a positive influence on the intention to purchase plant-based food	0.03	0.964	Not supported
H3	Perceived behavioural control has a negative influence on the Intention to Purchase Plant-Based Food	0.09	0.171	Not supported
H4	Functional value (quality) positively influences the intention to purchase plant-based foods.	0.02	0.770	Not supported
H5	Epistemic value has a positive influence on the Intention to Purchase Plant-Based Food	0.18	0.008	Supported
H6	Social value has a positive influence on Health value	1.00	0.00	Supported
H7	Health benefits have a positive effect on Intention to Purchase Plant-Based Food	0.39	0.00	Supported

3.5. The overall regression for the model was 0.53

Environmental attitude was the most important factor, followed by health benefits and epistemic values. Social value positively influenced health benefits, indicating that consumers initially tried plant-based food based on recommendations by celebrities to fit with the trend and gain approval from peers. However, once they adopted plant-based food, they realized the health benefits like better digestion, less bloating, and reduced hormonal imbalance. Plant-based diets have been known to offer several health advantages. They typically contain more fibre, vitamins, minerals, and antioxidants while lowering saturated fat and cholesterol levels. According to research, a well-planned plant-based diet can reduce the chance of developing chronic conditions like cardiovascular disease, obesity, increased blood sugar, etc. It might also aid in weight management, enhance digestion, and advance general well-being. While previous studies on organic food consumption (Al-Swidi et al., 2014) showed a positive relationship between subjective norms and purchase intention, the present study revealed that subjective norms had an insignificant effect on purchase intention. One possible reason could be that milk consumption in India is extremely high, and most vegetarians whose diet is focused on vegetables and grains are unwilling to give up milk as they consider milk and milk-based products like curd and cottage cheese the only protein source. Hence, while subjective norms (role of others) significantly influenced the purchase of organic food, when it comes to plant-based food, the willingness to try plant-based food is more personal.

Thøgersen (2009) stated that perceived barriers and ability, which constitute perceived behavioural control, influence organic food buying behaviour. Further, high prices and lack of availability significantly hinder organic food consumption (Rodríguez et al., 2008). Over the last two decades, organic food has found greater acceptance among consumers. Further, consumers with varied dietary preferences can read consumer reviews and try different foods (organic, farm fresh, locally produced, plant-based, meat alternatives, etc.) thanks to e-commerce and social media. Also, post-COVID-19, consumers are willing to pay a higher price for hygienic and high-quality food. This could explain why, in the present study,

perceived behavioural control has emerged as an insignificant predictor of purchase intention for plant-based food. The findings also align with a study conducted by Al-Swidi et al. (2014), who found perceived behavioural control an insignificant predictor of purchase intention of organic food in Pakistan. Functional value related to the quality of the product was found not to influence purchase intention. Curvelo et al. (2019), who studied the purchase intention of organic food among Brazilian consumers, found a strong positive relation between emotional value and purchase intention and no significance between functional value and purchase intention. The authors concluded that marketing communication should focus on arousing consumers' feelings and sensory organs through imagery of organic food's natural, fresh, and healthy appearance. Our study is in line with Curvelo et al. (2019).

3.6. Key findings

Brands must focus on key messages to persuade consumers to reduce meat consumption and choose plant-based food. Showing animal cruelty and its adverse effects on animals has little to no impact on regular meat eaters. However, focusing on the environmental effects, providing information on food sourcing, promoting plant-based products through the right influencers, and identifying health benefits would have a more significant impact. This aligns with Mohamed et al. (2017), who suggested that environmental concerns and animal welfare influence non-vegetarian Chinese opinions towards vegetarian diets. Reducing meat consumption could reduce the global land use required for grazing and growing crops for livestock feed (Poore & Nemecek, 2018). Relevant information about the health benefits should be provided to consumers considering adopting plant-based diets. While meat substitutes have a poor offtake owing to their artificial texture and flavouring, the movement towards plant-based food is growing. Consumers looking to reduce meat intake consciously should be nudged towards plant-based diets by offering PBMA and plant alternatives. For individuals who are lactose intolerant, milk alternatives like almond milk, soy milk, and oat milk can provide adequate levels of micronutrients. Plant-based foods offer fruits, legumes, seeds, new-age super grains such as quinoa and amaranth, and meat substitutes such as beetroot burgers, jackfruit biryani, and soya chunks. As social value increases, so does health value. Thus, highlighting the influential role that celebrities and trends have on people leads to a higher health value awareness for plant-based foods. While celebrities have contributed to popularizing and promoting the advantages of plant-based eating, realizing the health benefits of plant-based food results in broader purchase intention. Millet brands like Organic Tattva should run digital campaigns with celebrity chefs sharing healthy and diverse millet recipes.

3.7. Implications

The present research is helpful for marketers in understanding the preference level of plant-based food among Indian consumers. India's unique culinary traditions, religious beliefs, and cultural practices are firmly ingrained in plant-based eating, giving it a significant cultural significance. Many of India's colourful and diverse festivals are related to vegetarian or plant-based cuisine. For instance, many individuals observe fasts and only eat vegetarian food during Navratri, a nine-night Hindu celebration. Global exposure to Netflix, Amazon Prime, travel abroad, and the influence of Western celebrities has resulted in the younger generation adopting a modern lifestyle. Many younger consumers consume meat and alcohol outside their homes in restaurants and public places. In this dynamic context, it is interesting to note how a small but growing consumer base is searching for better and more authentic cuisine for taste, experimentation, and better health.

COVID made people realize the importance of food and a healthy lifestyle. Staying at home with parents and grandparents initiated young Indians into traditional cooking methods, seeking home remedies for coughs and colds and creating fusion food by blending modern and traditional food. Avocado, Quinoa, Amaranth, Soybean nuggets, jackfruit, beetroot, millets, etc. helped Indians expand their food choices. For individuals who prefer minimal animal-sourced food primarily for its high protein content, plant-based meals like legumes and millet and dairy alternatives like oat milk must be positioned as having high protein content. For individuals who prefer a more moderate approach, plant-based food, including fruits, millet, and quinoa, should be positioned as foods that provide adequate micronutrients.

For the gastronomy industry, this is an opportunity to promote and adopt novel cuisines and sustainable consumption habits, keeping consumers' needs and interests in mind. A study by Hoek et al. (2011) pointed out an interesting fact that meat consumers had a favourable inclination for alternatives resembling meat, and the opposite is true for consumers who were not meat eaters as they favoured meat alternatives that did not have a semblance to meat (Hoek et al., 2011). The insights from the study help fill the gaps in understanding the causal relationship of environmental attitude, social value, epistemic value, functional value, and health benefits and their influence on consumer purchase intention of plant-based food. They can help stakeholders in the food industry in creating effective promotional strategies.

The future scope of this study will be to conduct a consumption value gap analysis for plant-based food products. Furthermore, cross-country and gender-based studies are needed to understand the factors affecting purchase intentions concerning plant-based food products. Lastly, comparing metro versus non-metro cities to understand the factors affecting the consumption and purchase intention of plant-based food products can be another scope of research.

3.8. Limitations of the study

The present study had a few limitations which must be mentioned. Firstly, India is a diverse nation with a wide range of regional preferences, cultural practices, and eating habits. The results from one location might not accurately represent the attitudes and actions of people in other places. Across cultures and geographical areas, there can be substantial differences in attitudes, beliefs, and behaviours regarding plant-based foods. This study did not consider these variations; therefore, future studies focusing on regional differences would be an area of interest. Secondly, the analysis and conclusions are based on self-reported measures. Respondents might have felt pressured to have a more favourable opinion towards plant-based diets in a culture where vegetarianism is more acceptable, even if their consumption varies. Secondary research on the actual purchase behaviour of plant-based food might help marketers have a more realistic estimate of the actual potential of the market. Thirdly, this study focuses on Indian urban customers. A follow-up study focused on differences between urban and rural consumers would help marketers understand how to target both consumers differently. Thirdly, the sample size for this study was 310. While the authors ensured that non-sampling errors were minimal, a sample size of 384 would be desirable for a country like India. Lastly, the authors used judgment and convenience sampling to reach the relevant target audience (consumers aware of plant-based food differs from vegetarians). This resulted in a higher percentage of young consumers in the overall sample. This might impact the overall generalizability of the findings. It would be interesting to conduct a comparative study between Generation Z consumers and the older age group to understand the motivators for switching to plant-based food (environment consciousness vs health benefits).

4. Conclusions

This study emphasizes why reducing meat consumption and embracing plant-based food are beneficial at many levels. First, plant-based meals offer diverse flavours, textures, and cooking methods owing to the large selection of fruits, vegetables, grains, legumes, millets, nuts, and seeds. Adopting a plant-based diet opens the door to learning new culinary techniques, customs, and traditions. Individuals are empowered to make thoughtful decisions aligned with their values when eating a plant-based diet. It promotes a healthy lifestyle, mindful eating, and personal well-being. Brands need to encourage plant-based meals in different ways. Focusing on the health benefits of a plant-based diet, including how it can help lose weight, manage overall health, and minimize the risk of developing chronic diseases, is a vital hook. With the experience of the recent COVID-19 pandemic and zoonotic diseases, plant-based diets (including PMBA) are finding acceptance among a small but growing consumer base. Companies should promote and sell plant-based products by describing their nutritional value, including the necessary vitamins, minerals, and antioxidants. Most millet brands sell different types of millet (foxtail, pearl, sorghum) at various retail outlets without emphasizing the nutritional benefits. The Agricultural and Processed Food Products Export Development Authority (APEDA, Government of India) specifies the benefits of 8

different types of millets: strengthening and development of bones (finger millet), a rich source of Vitamin E (pearl millet), rich in calcium. It helps fight osteoporosis (foxtail millet), etc. Brands like Organic Tatva should communicate these benefits through digital campaigns involving celebrity chefs, sports athletes, and actors. It may be helpful for brands and the gastronomy industry to increase the presence of nuts, legumes, millet, etc., in meals, thus offering novel cuisines. The communication strategy must encourage consumers to adopt a healthier lifestyle by consuming fewer animal-sourced products and incorporating more vegetables, grains, and legumes into their diet. Providing detailed information on the impact on cholesterol, bone strengthening, improved gut health, and managing blood sugar would encourage consumers to adopt a healthy and sustainable diet.

Ethical approval

The Ethics Committee of KJ Somaiya Institute of Management, Somaiya Vidyavihar University, Mumbai, India, has cleared the present study.

Informed consent

Participants were asked to give their consent for the study before data collection. The questionnaire mentioned that data would be used for academic research, and if they were unwilling, they could opt out of the survey.

Introduction to the In-depth Interview: Good day. We are researchers from KJ Somaiya Institute of Management and are researching the attitudes and preferences of people like you towards Plant-based food. Your responses are anonymous and will be utilized to help us understand the theoretical framework of consumer intention toward plant-based food. This research is for academic purposes only. 'Plant-based product' has become a buzzword today. Plant-based products contain minimally processed fruits, vegetables, whole grains, legumes, nuts and seeds, herbs, and spices. They exclude all animal products, including red meat, poultry, fish, eggs, and dairy products.

You can opt-out if you do not wish to participate in this research.

Introduction to the Questionnaire: Good day. We are researchers from KJ Somaiya Institute of Management and are researching the attitudes and preferences of people like you towards Plant-based food. Your responses are anonymous and will be evaluated overall rather than specific to Individuals. This research is for academic purposes only. 'Plant-based product' has become a buzzword today. Plant-based products contain minimally processed fruits, vegetables, whole grains, legumes, nuts and seeds, herbs, and spices. They exclude all animal products, including red meat, poultry, fish, eggs, and dairy products.

We request that to fill out this short survey. You can opt-out if you do not wish to participate in this research.

Authors contribution

Anjali Chopra was involved in the study's conception and design, data analysis and interpretation, and critical revision of intellectual content for the paper. She is also the corresponding author of this paper. Jennifer Jagose was involved in the conception and design of the study and drafting of the paper. Aparna Pandey was involved in adding relevant research to the literature section and identifying the contribution of this research. All authors have approved the final manuscript.

Disclosure statement

No potential conflict of interest was reported by the author(s).

About the authors

Prof Dr. Anjali Chopra is a Customer Insights specialist with twenty five years of experience across academics, consulting and Corporat. She has worked with large world class clients in FMCG, financial services, food and beverage

sector to name a few. She is presently a Professor in the Department of Marketing and International Business at K J Somaiya Institute of Management, Somaiya Vidyavihar University. She has presented papers at several international conferences like European Academy Management, Global Marketing Conference, British Academy Management etc. She has several Scopus Q2 indexed and B category paper publications. Her research interests include consumer behaviour of Generation Z, Digital adoption, AI and Marketing, Higher education Brands to name a few. She is presently Associate Editor Business Perspectives and Research, a Sage Publication.

Jennifer Jagose is a gold medalist from KJ Somaiya Institute of Management, Somaiya Vidyavihar University where she completed her MBA in International Business (2021–23). She is currently associated with Reliance Jio Creative Labs, specializing in marketing and advertising. Jennifer's academic pursuits include prior publications in healthcare and marketing domain, reflecting her keen interest in interdisciplinary research. Her primary research interests focus on consumer behavior, marketing strategies, and sustainability-oriented consumption trends.

Prof. (Dr). Aparna Pandey is a PhD in Teams and Communication and PGD Indian Institute of Mass Communication, her areas of interest include communication skills, communication styles, communication in teams, corporate communication, and storytelling. She is passionate about traditional forms of communication and media, traditional art forms and narratives, sustainability, communication, and branding. She has over 10 years' experience in industry and academics and is presently working as Assistant Professor at the KJ Somaiya Institute of Management, Somaiya Vidyavihar University in the Department of General Management.

ORCID

Anjali Chopra  <http://orcid.org/0000-0002-8116-1214>

Data availability statement

The data supporting this study's findings are available from the corresponding author, [Dr Anjali Chopra], upon reasonable request.

References

- Andreani, G., Sogari, G., Marti, A., Froidi, F., Dagevos, H., & Martini, D. (2023). Plant-based meat alternatives: Technological, nutritional, environmental, market, and social challenges and opportunities. *Nutrients*, *15*(2), 452. <https://doi.org/10.3390/nu15020452>
- Ajzen, I. (1985). *From intentions to actions: A theory of planned behavior* (pp. 11–39). Springer.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Prentice Hall.
- Ajzen, I., & Fishbein, M. (2005). The influence of attitudes on behavior. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 173–221). Lawrence Erlbaum Associates Publishers.
- Al-Swidi, A., Mohammed, R. H. S., Haroon, H. M., & Noor Mohd, S. M. (2014). The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal*, *116*(10), 1561–1580. <https://doi.org/10.1108/BFJ-05-2013-0105>
- Arora, R. S., Brent, D. A., & Jaenicke, E. C. (2020). Is India ready for alt-meat? Preferences and willingness to pay for meat alternatives. *Sustainability*, *12*(11), 4377. <https://doi.org/10.3390/su12114377>
- Bakr, Y., Al-Bloushi, H., & Mostafa, M. (2023). Consumer intention to buy plant-based meat alternatives: A cross-cultural analysis. *Journal of International Consumer Marketing*, *35*(4), 420–435. <https://doi.org/10.1080/08961530.2022.2122103>
- Bamberg, S. (2003). How does environmental concern influence specific environmentally related behaviors? A new answer to an old question. *Journal of Environmental Psychology*, *23*(1), 21–32. [https://doi.org/10.1016/S0272-4944\(02\)00078-6](https://doi.org/10.1016/S0272-4944(02)00078-6)
- Baum, C. M., Verbeke, W., & De Steur, H. (2022). Turning your weakness into my strength: How counter-messaging on conventional meat influences acceptance of cultured meat. *Food Quality and Preference*, *97*, 104485. <https://doi.org/10.1016/j.foodqual.2021.104485>
- Bhatia, V., Gopi, G., & Behera, P. (2021). Plant-based diet: A solution to the sustainability of life and environment. *Indian Journal of Community and Family Medicine*, *7*(1), 19–24. https://doi.org/10.4103/ijcfm.ijcfm_123_20
- Bryant, C., & Sanctorem, H. (2021). Alternative proteins, evolving attitudes: Comparing consumer attitudes to plant-based and cultured meat in Belgium in two consecutive years. *Appetite*, *161*, 105161. <https://doi.org/10.1016/j.appet.2021.105161>
- Bryant, C., Szejda, K., Parekh, N., Deshpande, V., & Tse, B. (2019). A survey of consumer perceptions of plant-based and clean meat in the USA, India, and China. *Frontiers in Sustainable Food Systems*, *3*, 00011. <https://doi.org/10.3389/fsufs.2019.00011>

- Buerke, A., Straatmann, T., Lin-Hi, N., & Müller, K. (2017). Consumer awareness and sustainability-focused value orientation as motivating factors of responsible consumer behavior. *Review of Managerial Science*, 11(4), 959–991. <https://doi.org/10.1007/s11846-016-0211-2>
- Byrne, B. M. (2016). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge.
- Bauerné Gáthy, A., Kovácsné Soltész, A., & Szűcs, I. (2022). Sustainable consumption—examining the environmental and health awareness of students at the University of Debrecen. *Cogent Business & Management*, 9(1), 2105572. <https://doi.org/10.1080/23311975.2022.2105572>
- Carfora, V., Morandi, M., & Catellani, P. (2022). Predicting and promoting the consumption of plant-based meat. *British Food Journal*, 124(12), 4800–4822. <https://doi.org/10.1108/BFJ-07-2021-0829>
- Chawla, M. (2022). *Plant-based dairy - An emerging segment in sustainability - FFOODS spectrum - Unleashing the power of food science & technology*. FFOODS Spectrum - Unleashing the Power of Food Science & Technology. <https://nuffoodsspectrum.in/2022/09/01/plant-based-dairy-an-emerging-segment-in-sustainability.html>
- Curvelo, I. C. G., Eluiza, A. d. M. W., & Solange, A. (2019). Purchase intention of organic food under the influence of attributes, consumer trust and perceived value. *Revista de Gestão*, 26(3), 198–211. <https://doi.org/10.1108/REGE-01-2018-0010>
- D'Souza, C., Taghian, M., & Khosla, R. (2007). Examination of environmental beliefs and its impact on the influence of price, quality and demographic characteristics with respect to green purchase intention. *Journal of Targeting, Measurement and Analysis for Marketing*, 15(2), 69–78. <https://doi.org/10.1057/palgrave.jt.5750039>
- Diamantopoulos, A., Reynolds, N., & Schlegelmilch, B. (1994). Pretesting in questionnaire design: The impact of respondent characteristics on error detection. *Market Research Society. Journal*, 36(4), 1–15.
- Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research*, 56(6), 465–480. [https://doi.org/10.1016/S0148-2963\(01\)00241-7](https://doi.org/10.1016/S0148-2963(01)00241-7)
- Duurzaam, O. (2019). *Food companies are aligning with SDGs, but need to do more, study finds - Duurzaam Ondernemen*. Duurzaam Ondernemen. <https://www.duurzaam-ondernemen.nl/food-companies-are-aligning-with-sdgs-but-need-to-do-more-study-finds/>
- Ewers, B., Sørensen, M. R., Fagt, S., Diaz, L. J., & Vilsbøll, T. (2021). Intention and perceptions of healthy eating versus actual intake among patients with type 1 and type 2 diabetes and the general population. *Patient Preference and Adherence*, 15, 2027–2037. <https://doi.org/10.2147/PPA.S325214>
- Fanzo, J. (2019). Healthy and sustainable diets and food systems: The key to achieving Sustainable Development Goal 2? *Food Ethics*, 4(2), 159–174. <https://doi.org/10.1007/s41055-019-00052-6>
- Fehér, A., Gazdecki, M., Véha, M., Szakály, M., & Szakály, Z. (2020). A comprehensive review of the benefits of and the barriers to the switch to a plant-based diet. *Sustainability*, 12(10), 4136. <https://doi.org/10.3390/su12104136>
- Fieschi, M., & Pretato, U. (2018). Role of compostable tableware in food service and waste management. A life cycle assessment study. *Waste Management*, 73, 14–25. <https://doi.org/10.1016/j.wasman.2017.11.036>
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388. <https://doi.org/10.1177/002224378101800313>
- Fra, S. (2023). The role of warm glow and temporal framing in shaping plant-based meat choices. <https://edepot.wur.nl/642495>
- Godfray, H. C. J., Aveyard, P., Garnett, T., Hall, J. W., Key, T. J., Lorimer, J., Pierrehumbert, R. T., Scarborough, P., Springmann, M., & Jebb, S. A. (2018). Meat consumption, health, and the environment. *Science*, 361(6399), eaam5324. <https://doi.org/10.1126/science.aam5324>
- Gowda, N. A. N., Siliveru, K., Prasad, P. V. V., Bhatt, Y., Netravati, B. P., & Gurikar, C. (2022). Modern processing of Indian millets: A perspective on changes in nutritional properties. *Foods (Basel, Switzerland)*, 11(4), 499. Contribution of Minor Cereals to Sustainable Diets and AgCro-Food Biodiversity, 154. <https://doi.org/10.3390/foods11040499>
- Graça, J., Calheiros, M. M., & Oliveira, A. (2015). Attached to meat? (Un) willingness and intentions to adopt a more plant-based diet. *Appetite*, 95, 113–125. <https://doi.org/10.1016/j.appet.2015.06.024>
- Guha, K. B., & Gupta, P. (2020). Growing trend of veganism in metropolitan cities: Emphasis on baking. *PUSA Journal of Hospitality and Applied Sciences*, 6, 22–31.
- Habib, M. D., Alghamdi, A., Sharma, V., Mehrotra, A., & Badghish, S. (2024). Diet or lifestyle: Consumer purchase behavior of vegan retailing. A qualitative assessment. *Journal of Retailing and Consumer Services*, 76, 103584. <https://doi.org/10.1016/j.jretconser.2023.103584>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(1–2), 1–12. <https://doi.org/10.1016/j.lrp.2013.01.001>
- Hair, J. F., Jr, Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Hänninen, N., & Karjaluoto, H. (2017). Environmental values and customer-perceived value in industrial supplier relationships. *Journal of Cleaner Production*, 156, 604–613. <https://doi.org/10.1016/j.jclepro.2017.04.081>

- Han, H. (2021). Consumer behavior and environmental sustainability in tourism and hospitality: A review of theories, concepts, and latest research. *Journal of Sustainable Tourism*, 29(7), 1021–1042.
- Hartmann, C., Ruby, M. B., Schmidt, P., & Siegrist, M. (2018). Brave, health-conscious, and environmentally friendly: Positive impressions of insect food product consumers. *Food Quality and Preference*, 68, 64–71.
- Hoek, A. C., Luning, P. A., Weijzen, P., Engels, W., Kok, F. J., & de Graaf, C. (2011). Replacement of meat by meat substitutes. A survey on person- and product-related factors in consumer acceptance. *Appetite*, 56(3), 662–673. <https://doi.org/10.1016/j.appet.2011.02.001>
- Hoek, A. C., Elzerman, J. E., Hageman, R., Kok, F. J., Luning, P. A., & Graaf, C. D. (2013). Are meat substitutes liked better over time? A repeated in-home use test with meat substitutes or meat in meals. *Food Quality and Preference*, 28(1), 253–263. <https://doi.org/10.1016/j.foodqual.2012.07.002>
- Honkanen, P., Verplanken, B., & Olsen, S. O. (2006). Ethical values and motives driving organic food choice. *Journal of Consumer Behaviour*, 5(5), 420–430. <https://doi.org/10.1002/cb.190>
- Hwang, J., You, J., Moon, J., & Jeong, J. (2020). Factors affecting consumers' alternative meats buying intentions: Plant-based meat alternative and cultured meat. *Sustainability*, 12(14), 5662. <https://doi.org/10.3390/su12145662>
- Huang, W. (2022). Demand for plant-based milk and effects of a carbon tax on fresh milk consumption in Sweden. *Economic Analysis and Policy*, 75, 518–529. <https://doi.org/10.1016/j.eap.2022.06.011>
- Lund-Durlacher, D., & Gössling, S. (2021). An analysis of Austria's food service sector in the context of climate change. *Journal of Outdoor Recreation and Tourism*, 34, 100342. <https://doi.org/10.1016/j.jort.2020.100342>
- Ledikwe, A., Stiehler-Mulder, B., & Roberts-Lombard, M. (2020). Product involvement, WOM and eWOM in the fast-food industry: A young adult perspective in an emerging African economy. *Cogent Business & Management*, 7(1), 1817288. <https://doi.org/10.1080/23311975.2020.1817288>
- Lee, J. S., Hsu, L. T., Han, H., & Kim, Y. (2010). Understanding how consumers view green hotels: How a hotel's green image can influence behavioural intentions. *Journal of Sustainable Tourism*, 18(7), 901–914. <https://doi.org/10.1080/09669581003777747>
- Leonidou, C. N., & Leonidou, L. C. (2011). Research into environmental marketing/management: A bibliographic analysis. *European Journal of Marketing*, 45(1/2), 68–103. <https://doi.org/10.1108/03090561111095603>
- Limbu, Y. B., Wolf, M., & Lunsford, D. (2012). Perceived ethics of online retailers and consumer behavioral intentions: The mediating roles of trust and attitude. *Journal of Research in Interactive Marketing*, 6(2), 133–154. <https://doi.org/10.1108/17505931211265435>
- Li, S., & Jaharuddin, N. S. (2021). Influences of background factors on consumers' purchase intention in China's organic food market: Assessing moderating role of word-of-mouth (WOM). *Cogent Business & Management*, 8(1), 1876296. <https://doi.org/10.1080/23311975.2021.1876296>
- Mahasuweerachai, P., Suttikun, C., & Bicksler, W. H. (2023). From pride to plate: How feelings of pride and guilt lead Gen Z to plant-based consumption at restaurants. *Young Consumers*, 24(6), 831–848. <https://doi.org/10.1080/23311975.2021.1876296>
- Markowski, K. L., & Roxburgh, S. (2019). "If I became a vegan, my family and friends would hate me:" Anticipating vegan stigma as a barrier to plant-based diets. *Appetite*, 135, 1–9. <https://doi.org/10.1016/j.appet.2018.12.040>
- McNamara, K., & Wood, E. (2019). Food taboos, health beliefs, and gender: Understanding household food choice and nutrition in rural Tajikistan. *Journal of Health, Population and Nutrition*, 38(1), 14. <https://doi.org/10.1186/s41043-019-0170-8>
- Mohamed, Z., Terano, R., Yeoh, S. J., & Iliyasa, A. (2017). Opinions of non-vegetarian consumers among the Chinese community in Malaysia toward vegetarian food and diets. *Journal of Food Products Marketing*, 23(1), 80–98. <https://doi.org/10.1080/10454446.2017.1244795>
- Moser, A. K. (2015). Thinking green, buying green? Drivers of pro-environmental purchasing behavior. *Journal of Consumer Marketing*, 32(3), 167–175. <https://doi.org/10.1108/JCM-10-2014-1179>
- Naumann, E., & Giel, K. (1995). *Customer satisfaction measurement and management: Using the voice of the customer*. Van Nostrand Reinhold.
- Nekmahmud, M., & Fekete-Farkas, M. (2020). Why not green marketing? Determinates of consumers' intention to green purchase decision in a new developing nation. *Sustainability*, 12(19), 7880. <https://doi.org/10.3390/su12197880>
- Nekmahmud, M. (2024). Food consumption behavior, food supply chain disruption, and food security crisis during the COVID-19: The mediating effect of food price and food stress. *Journal of Foodservice Business Research*, 27(3), 227–253. <https://doi.org/10.1080/15378020.2022.2090802>
- Onwezen, M. C., Bouwman, E. P., Reinders, M. J., & Dagevos, H. (2021). A systematic review on consumer acceptance of alternative proteins: Pulses, algae, insects, plant-based meat alternatives, and cultured meat. *Appetite*, 159, 105058. <https://doi.org/10.1016/j.appet.2020.105058>
- Onwezen, M. C., van den Puttelaar, J., Verain, M. C. D., & Veldkamp, T. (2019). Consumer acceptance of insects as food and feed: the relevance of affective factors. *Food Quality and Preference*, 77, 51–63. <https://doi.org/10.1016/j.foodqual.2019.04.011>
- Onwezen, M. C., & Dagevos, H. (2024). A meta-review of consumer behaviour studies on meat reduction and alternative protein acceptance. *Food Quality and Preference*, 114, 105067. <https://doi.org/10.1016/j.foodqual.2023.105067>
- Oruganti, M. (2011). Organic dairy farming-A new trend in dairy sector. *Veterinary World*, 4(3), 128. <https://doi.org/10.5455/vetworld.2011.128-130>

- Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science*, 360(6392), 987–992. <https://doi.org/10.1126/science.aag0216>
- Pinkse, J., & Bohnsack, R. (2021). Sustainable product innovation and changing consumer behavior: Sustainability affordances as triggers of adoption and usage. *Business Strategy and the Environment*, 30(7), 3120–3130. <https://doi.org/10.1002/bse.2793>
- Pointke, M., Ohlau, M., Risius, A., & Pawelzik, E. (2022). Plant-based only: Investigating consumers' sensory perception, motivation, and knowledge of different plant-based alternative products on the market. *Foods*, 11(15), 2339. <https://doi.org/10.3390/foods11152339>
- Piazza, J., Matthew, B. R., Steve, L., Mischel, L., Juliana, K., Hanne, M. W., & Mirra, S. (2015). Rationalizing meat consumption. The 4Ns. *Appetite*, 91, 114–128. <https://doi.org/10.1016/j.appet.2015.04.011>
- Punyatoya, P. (2015). Effect of perceived brand environment-friendliness on Indian consumer attitude and purchase intention: An integrated model. *Marketing Intelligence & Planning*, 33(3), 258–275. <https://doi.org/10.1108/MIP-04-2013-0069>
- Rana, J., & Paul, J. (2012). Consumer behavior and purchase intention for organic food. *Journal of Consumer Marketing*, 29(6), 412–422. <https://doi.org/10.1108/07363761211259223>
- Rini, L., Bayudan, S. R. L., Faber, I., Frøst, M. B., Perez-Cueto, F. J., Schouteten, J., & De Steur, H. (2023). *European consumers' purchase intentions towards plant-based meat products: The mediation effect of social media involvement*. SSRN 4550313.
- Rodríguez, E., Lacaze, V., & Lupi'n, B. (2008). *Valuation of consumers' willingness-to-pay for organic food in Argentina* [Paper presentation]. Paper presented at 12th Congress of the European Association of Agricultural Economists – EAAE, August 26–29, Ghent.
- Roh, T., Junhee, S., & Yaeri, K. (2022). Unveiling ways to reach organic purchase: Green perceived value, perceived knowledge, attitude, subjective norm, and trust. *Journal of Retailing and Consumer Services*, 67, 102988. <https://doi.org/10.1016/j.jretconser.2022.102988>
- Ruby, M. B., Graça, J., & Olli, E. (2024). Vegetarian, vegan, or plant-based? Comparing how different labels influence consumer evaluations of plant-based foods. *Appetite*, 197, 107288. <https://doi.org/10.1016/j.appet.2024.107288>
- Runte, M., Guth, J. N., & Ammann, J. (2024). Consumers' perception of plant-based alternatives and changes over time. A linguistic analysis across three countries and ten years. *Food Quality and Preference*, 113, 105057. <https://doi.org/10.1016/j.foodqual.2023.105057>
- Ramkissoon, H., Nunkoo, R., & Gursoy, D. (2009). How consumption values affect destination image formation. In *Perspectives on cross-cultural, ethnographic, brand image, storytelling, unconscious needs, and hospitality guest research* (pp. 143–168). Emerald Group Publishing Limited.
- Rini, L., Schouteten, J. J., Faber, I., Bechtold, K. B., Perez-Cueto, F. J., Gellynck, X., & De Steur, H. (2022). Identifying the key success factors of plant-based food brands in Europe. *Sustainability*, 15(1), 306.
- Rosenfeld, D. L., Bartolotto, C., & Tomiyama, A. J. (2022). Promoting plant-based food choices: Findings from a field experiment with over 150,000 consumer decisions. *Journal of Environmental Psychology*, 81, 101825. <https://doi.org/10.1016/j.jenvp.2022.101825>
- Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2), 159–170. [https://doi.org/10.1016/0148-2963\(91\)90050-8](https://doi.org/10.1016/0148-2963(91)90050-8)
- Siddiqui, S. A., Bahmid, N. A., Mahmud, C. M., Boukid, F., Lamri, M., & Gagaoua, M. (2023). Consumer acceptability of plant-, seaweed-, and insect-based foods as alternatives to meat: A critical compilation of a decade of research. *Critical Reviews in Food Science and Nutrition*, 63(23), 6630–6651. <https://doi.org/10.1080/10408398.2022.2036096>
- Siddiqui, S. A., Alvi, T., Sameen, A., Khan, S., Blinov, A. V., Nagdalian, A. A., Mehdizadeh, M., Adli, D. N., & Onwezen, M. (2022). Consumer acceptance of alternative proteins: A systematic review of current alternative protein sources and interventions adapted to increase their acceptability. *Sustainability*, 14(22), 15370. <https://doi.org/10.3390/su142215370>
- Siddiqui, S. A., Zannou, O., Karim, I., Kasmia, Awad, N. M. H., Gołaszewski, J., Heinz, V., Smetana, S. (2022). Avoiding food neophobia and increasing consumer acceptance of new food trends—A decade of research. *Sustainability*, 14(16), 10391. <https://doi.org/10.3390/su141610391>
- Springmann, M., Clark, M., Mason-D'Croz, D., Wiebe, K., Bodirsky, B. L., Lassaletta, L., de Vries, W., Vermeulen, S. J., Herrero, M., Carlson, K. M., Jonell, M., Troell, M., DeClerck, F., Gordon, L. J., Zurayk, R., Scarborough, P., Rayner, M., Loken, B., Fanzo, J., ... Willett, W. (2018). Options for keeping the food system within environmental limits. *Nature*, 562(7728), 519–525. <https://doi.org/10.1038/s41586-018-0594-0>
- Seo, E. H., Jang, H. W., & Cho, M. (2023). Enabling the foodservice industry to transition consumers toward plant-based meat alternatives: A behavioral reasoning perspective. *International Journal of Hospitality Management*, 114, 103559. <https://doi.org/10.1016/j.ijhm.2023.103559>
- Slade, P. (2023). Does plant-based milk reduce sales of dairy milk? Evidence from the almond milk craze. *Agricultural and Resource Economics Review*, 52(1), 112–131. <https://doi.org/10.1017/age.2022.22>
- Siegrist, M., & Hartmann, C. (2020). Perceived naturalness, disgust, trust and food neophobia as predictors of cultured meat acceptance in ten countries. *Appetite*, 155, 104814. <https://doi.org/10.1016/j.appet.2020.104814>
- Suki, M. N., & Suki, M. N. (2015). Consumption values and consumer environmental concern regarding green products. *International Journal of Sustainable Development & World Ecology*, 22(3), 269–278.

- Svalastog, A. L., Donev, D., Kristoffersen, N. J., & Gajović, S. (2017). Concepts and definitions of health and health-related values in the knowledge landscapes of the digital society. *Croatian Medical Journal*, 58(6), 431–435. <https://doi.org/10.3325/cmj.2017.58.431>
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203–220. [https://doi.org/10.1016/S0022-4359\(01\)00041-0](https://doi.org/10.1016/S0022-4359(01)00041-0)
- Szenderák, J., Fróna, D., & Rákos, M. (2022). Consumer acceptance of plant-based meat substitutes: A narrative review. *Foods (Basel, Switzerland)*, 11(9), 1274. 2022, <https://doi.org/10.3390/foods11091274>
- Tanrikulu, C. (2021). Theory of consumption values in consumer behaviour research: A review and future research agenda. *International Journal of Consumer Studies*, 45(6), 1176–1197. <https://doi.org/10.1111/ijcs.12687>
- Teng, C. C., & Wang, Y. M. (2015). Decisional factors driving organic food consumption: Generation of consumer purchase intentions. *British Food Journal*, 117(3), 1066–1081. <https://doi.org/10.1108/BFJ-12-2013-0361>
- Teangsompong, T., & Sawangproh, W. (2024). Understanding online purchase intention of plant-based foods: Exploring causal factors and moderating role of self-efficacy within the SOR theory. *Heliyon*, 10(10), e30785. <https://doi.org/10.1016/j.heliyon.2024.e30785>
- Thøgersen, J. (2009). The motivational roots of norms for environmentally responsible behavior. *Basic and Applied Social Psychology*, 31(4), 348–362.
- Tilman, D., Clark, M., Williams, D. R., Kimmel, K., Polasky, S., & Packer, C. (2017). Future threats to biodiversity and pathways to their prevention. *Nature*, 546(7656), 73–81. <https://doi.org/10.1038/nature22900>
- Turner-McGrievy, G. M., Davidson, C. R., Wingard, E. E., Wilcox, S., & Frongillo, E. A. (2015). Comparative effectiveness of plant-based diets for weight loss: A randomized controlled trial of five different diets. *Nutrition*, 31(2), 350–358. <https://doi.org/10.1016/j.nut.2014.09.002>
- Van Trijp, H. C. M., & van Kleef, E. (2008). Newness, value and new product performance. *Trends in Food Science and Technology*, 19, 562–573. <https://doi.org/10.1016/j.tifs.2008.03.004>
- Varela, P., Arvisenet, G., Goner, A., Myhrer, K. S., Fifi, V., & Valentin, D. (2022). Meat replacer? No thanks! The clash between naturalness and processing: An explorative study of the perception of plant-based foods. *Appetite*, 169, 105793. <https://doi.org/10.1016/j.appet.2021.105793>
- Verma, V. K., & Chandra, B. (2018). An application of theory of planned behavior to predict young Indian consumers' green hotel visit intention. *Journal of Cleaner Production*, 172, 1152–1162. <https://doi.org/10.1016/j.jclepro.2017.10.047>
- Verma, A. (2019). *Guidance notes "Millets, The Nutri-cereals"*. https://www.fssai.gov.in/upload/uploadfiles/files/Guidance_Notes_Version_2_Millets_29_01_2020.pdf
- Wang, O., & Scrimgeour, F. (2021). Willingness to adopt a more plant-based diet in China and New Zealand: Applying the theories of planned behaviour, meat attachment and food choice motives. *Food Quality and Preference*, 93, 104294. <https://doi.org/10.1016/j.foodqual.2021.104294>
- Wang, O., Perez-Cueto, F. J., Scarpa, R., & Scrimgeour, F. (2024). The influence of innovation-adoption characteristics on consumers' trust and purchase intentions of innovative alternative proteins: A comparison between plant-based food, cultured food, and insect-based food. *Food Quality and Preference*, 113, 105072. <https://doi.org/10.1016/j.foodqual.2023.105072>
- Wahrens, S. S., Faber, I., Gunn, L., Buldo, P., Frøst, M. B., & Perez-Cueto, F. J. (2023). Consumers' sensory-based cognitions of currently available and ideal plant-based food alternatives: A survey in Western, Central and Northern Europe. *Food Quality and Preference*, 108, 104875. <https://doi.org/10.1016/j.foodqual.2023.104875>
- Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., Garnett, T., Tilman, D., DeClerck, F., Wood, A., Jonell, M., Clark, M., Gordon, L. J., Fanzo, J., Hawkes, C., Zurayk, R., Rivera, J. A., De Vries, W., Majele Sibanda, L., ... Murray, C. J. L. (2019). Food in the Anthropocene: The EAT–Lancet Commission on healthy diets from sustainable food systems. *Lancet*, 393(10170), 447–492. [https://doi.org/10.1016/S0140-6736\(18\)31788-4](https://doi.org/10.1016/S0140-6736(18)31788-4)
- White, S. K., Ballantine, P. W., & Ozanne, L. K. (2022). Consumer adoption of plant-based meat substitutes: A network of social practices. *Appetite*, 175, 106037. <https://doi.org/10.1016/j.appet.2022.106037>
- Williams, E., Vardavoulia, A., Lally, P., & Gardner, B. (2023). Experiences of initiating and maintaining a vegan diet among young adults: A qualitative study. *Appetite*, 180, 106357. <https://doi.org/10.1016/j.appet.2022.106357>
- Zainuddin, N., Russell-Bennett, R., & Previte, J. (2013). The value of health and well-being: An empirical model of value creation in social marketing. *European Journal of Marketing*, 47(9), 1504–1524. <https://doi.org/10.1108/EJM-10-2011-0564>
- Zaman, S. I., & Kusi-Sarpong, S. (2024). Identifying and exploring the relationship among the critical success factors of sustainability toward consumer behavior. *Journal of Modelling in Management*, 19(2), 492–522. <https://doi.org/10.1108/JM2-06-2022-0153>

Websites

- Buro, A. (2020). *6 Biggest myths about plant-based diets*. <https://www.muscledstrength.com/articles/6-biggest-myths-about-plant-based-protein>

- Elkin, E. (2021). *Plant-based food sales to increase fivefold by 2030, B.I. Says*. Bloomberg. <https://www.bloomberg.com/news/articles/2021-08-11/plant-based-food-sales-to-increasefivefold-by-2030-bi-says>
- ET HealthWorld. (2022). *Above and beyond meat: The changing consumer behaviour and acceptance of plant-based meat*. ETHealthworld.com. <https://health.economictimes.indiatimes.com/news/industry/above-and-beyond-meat-the-changing-consumer-behaviour-and-acceptance-of-plant-based-meat/92834290>
- Gaba, R. (2023). *Essentially sports, all you need to know about Novak Djokovic's stringent vegan diet*. EssentiallySports. <https://www.essentiallysports.com/atp-tennis-news-all-you-need-to-know-about-novak-djokovics-stringent-vegan-diet/>
- Mayo Clinic Staff. (2022). <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/meatless-meals/art-20048193#:~:text=A%20plant%2Dbased%20diet%20focuses,also%20tend%20to%20weigh%20less>
- SPIN. (2021). *'2020 was a breakout year for plant-based foods...'* GFI, PBFA, SPINS, unveil 2020 retail sales. data. foodnavigator-usa.com. <https://www.foodnavigator-usa.com/Article/2021/04/06/2020-was-a-breakout-year-for-plant-based-foods-GFI-PBFA-SPINS-unveil-2020-retail-sales-data>
- United Nation. (2024). <https://sdgs.un.org/goals/goal3>
- United Nations Climate Change. (2021). *We need to talk about meat*. <https://unfccc.int/news/we-need-to-talk-about-meat>
- Nielsen. (2021). *Growing demand for plant-based proteins*. NIQ. <https://nielseniq.com/global/en/insights/analysis/2021/examining-shopper-trends-in-plant-based-proteins-accelerating-growth-across-mainstream-channels/>
- United Nations. (2023). *The 17 Goals | Sustainable development*. <https://sdgs.un.org/goals>
- Mani. (2022). <https://timesofindia.indiatimes.com/blogs/voices/shifting-food-trends-for-health-in-2022/>
- Kohli, S., & Pant, S. (2018). *These Doodhwalas aim at a new white revolution*. *Times of India*. http://timesofindia.indiatimes.com/articleshow/66493777.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- World Health Organization. (2021). *Plant-based diets and their impact on health, sustainability and the environment: A review of the evidence*. [https://iris.who.int/bitstream/handle/10665/349086/WHO-EURO-2021-4007-43766-61591-eng.pdf?sequence%3D1%26isAllowed%3Dy#:~:text=Semi-vegetarian%20\(20flexitarian\)%20diets%20are%20primarily%20vegetarian%20but%20include%20meat](https://iris.who.int/bitstream/handle/10665/349086/WHO-EURO-2021-4007-43766-61591-eng.pdf?sequence%3D1%26isAllowed%3Dy#:~:text=Semi-vegetarian%20(20flexitarian)%20diets%20are%20primarily%20vegetarian%20but%20include%20meat)