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Addressing the Drivers and Concerns Towards Agri-Food Strategy: Prioritizing Environmental Management Business Models

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ABSTRACT

Sustainability in the agri-food sector has been increasingly important with regard to the environment, health, and employment of local farmers. The purpose of this research is to analyze the impact of drivers and barriers on consumer behavior toward sustainable agri-food products in India under the Behavioral Reasoning Theory (BRT). This study employs a mixed-methods approach, integrating both exploratory and confirmatory strategies designed to understand the behavioral motivators and barriers in sustainable purchase decisions. The study concludes that environmental concern, health, and support for local farmers positively enhance consumer intention to purchase sustainable agri-food products. Conversely, payment and limited accessibility serve as barriers in highly price-sensitive markets like India. Environmental concern moderates the impact of supportive and negative agri-food reasons by amplifying the positive influence while reducing the negative one. Addressing the barriers alongside the motivators will enable greater achievement of sustainable consumption. This makes well-founded recommendations for businesses and public institutions in developing strategies to promote sustainable agri-food products optimized for hesitant consumers. It also broadens the scope of BRT, portraying consumer decision-making in a less-considered light, and offers a practical approach to fostering green purchase intentions in developing nations.

1 | Introduction

The agri-food system includes all the activities and services around food, including agriculture (plants, animals, and fisheries), processing, distribution, and consumption. Agricultural products can be either raw or processed (Gagnon 2012). However, steps should be taken to make it eco-friendly, such as using organic farming practices, regenerative agriculture, water conservation, and a low use of synthetic chemicals, including pesticides and fertilizers (Baruah 2024). Suppose sustainable practices such as crop diversification, renewable energy, low food waste, and local sourcing are applied. In that case, the agri-food system may help to preserve the environment, reduce GHGs, enhance biodiversity, and improve the health of the planet in the long term (Adelodun et al. 2021; Sahu et al. 2023). Sustainable practices apply these methods to increase the output of agricultural products and simultaneously conserve the environment (Poponi et al. 2023).

Buyers are indecisive up to the point of purchase; however, what guides their ultimate buying intentions as far as purchasing agri-food is concerned is their growing knowledge of the environment (Wendt and Weinrich 2023). This goes on as agri-food buyers are more willing to purchase goods that strain farmers towards using environmentally friendly and resource-conserving methods (Horlings and Marsden 2011). Businesses that promote sustainable production, such as food with minimal environmental impact and long transport or organic farming methods, attract such consumers (Tian and Qin 2024). In India, brands such as Organic Tattva and 24 Mantra Organic are much more attractive to a target group concerned about the state of the earth as they focus on sustainable and organic farming (Attri and Bairagi 2023). On top of that, sustainable agri-food methods help reduce deforestation, soil depletion, and water overconsumption, making such products more appealing to consumers (Islam and Zheng 2024).

On the other hand, some customers will instead be unwilling to buy agri-food products that focus on ecological sustainability because it entails a higher cost and demands more convenience (Aschemann-Witzel and Stangherlin 2021). Some measures designed to induce sustainability, organic farming, for instance, tend to employ a lot of man hours, thus increasing the costs set for the end consumer (Revell and Blackburn 2007). This is likely to act as a deterrent in emerging markets such as India, which are price-sensitive (Tripathi et al. 2023). In addition, the market for sustainably produced agri-food products could be limited in certain locales, making it difficult to source (Joshi et al. 2023). Consumers are also likely to be distrustful of claims of greenwashing, where businesses make false claims of environmental benefits, resulting in a lack of trust and willingness to buy (Y.-S. Chen and Chang 2013). As a result, it is clear that ethical issues aside, realistic concerns such as price, supply, or even authenticity will all prevent many clients from embracing sustainably produced agri-food items (Hirth et al. 2022). The growing awareness of environmental sustainability issues is one of the major elements driving the intention to purchase agri-food products (Testa et al. 2022). Consumers are increasingly attracted to products deemed to support the cause of sustainable agriculture, conservation, and lower carbon emissions (Adegbeye et al. 2020). Agri-food businesses with strong sustainable production agendas (Galeotti et al. 2023) such as eco-packing, reducing unnatural contents in food, and practicing organic farming might gain the interest of environmentally conscious consumers (Califano et al. 2024). Organic Tattva and 24 Mantra Organic are among the brands in India that focus on organics to make a positive difference to the environment and attract like-minded consumers who are interested in a sustainable future. A similar positive effect is associated with the marketing of goods and services that support sustainable agri-food practices, which in turn contribute to reducing deforestation, soil erosion, and excessive water use and encourage consumers to choose such products (P. Kumar et al. 2024).

The behavioral reasoning theory (BRT) explains the role of the individual's schemes in shaping their views and the outcome of their decision-making with respect to agricultural and food items (Dhir et al. 2021). In India, the reasons and arguments offered by the customers purchasing intentions regarding agri-food goods to be persuasive are what pushes them to make the acquisition. The health benefits, environmental care, and support of the local farmers motivate them to purchase agri-food items that are eco-friendly and organic if such products are available. However, a person may be reluctant to purchase due to such negative factors as high price, limited supply, and skepticism regarding the product's claimed features. In India, BRT explains some consumers do not encounter such problems. Instead, their interaction with firmness in agri-food and environmental products increases their attraction towards agri-food goods of sustainable quality. This comprehension aids agri-food enterprises in India customize their strategies to mitigate customer apprehensions and advance sustainability. Hence, on this, we are coming up with two research questions.

RQ1. What are the reasons (for and against) that affect the sustainability of agri-food products?

RQ2. Is environmental concern moderating the associations with reasons (for and against) on the sustainability of agri-food products?

While global attention on agri-food sustainability continues to grow, the sector faces a challenge in closing the gap between consumer purchasing behavior and sustainable spending. Previous literature focused on the sustainability aspect of food consumption (Scalvedi and Saba 2018; Timpanaro and Cascone 2022); however, very few attempts have been made to analyze reasoning processes to make decisions, especially in developing economies such as India. This research intends to address that gap by using the BRT to identify rationales that motivate and discourage purchases of sustainable agri-food products. Furthermore, this study broadens the understanding of consumers' attitudes, perceived benefits, and barriers by examining environmental concerns as possible moderating factors. The results of this study enrich academic discussions and practical business approaches by revealing how marketing frameworks aimed at promoting sustainability can be strategically crafted to improve consumer participation and trust in green consumption.

The paper elucidates different sections on the aspects of the study. Sections 2 and 3 depict the background literature and research design, whereas Sections 4 and 5 talk about exploratory and confirmatory studies. Sections 6 and 7 elaborate the discussion and implications, whereas Sections 8 and 9 illustrate limitations, future scopes, and the study's conclusion.

2 | Background Literature

2.1 | Agri-Food Products

Agri-food products encompass a broad range of food items derived directly from agriculture, including crops, livestock, aquaculture, and processed foods made from these agricultural sources (Chaparro-Banegas et al. 2024). This sector spans raw, minimally processed foods—such as grains, vegetables, fruits, dairy, and meat—and more processed goods like cereals, flour, oils, dairy products, and packaged snacks (Bahn et al. 2025; Duong et al. 2024). The agri-food industry is vital in food security and economic development (Limpamont et al. 2024), especially in agricultural economies like India.

Increasingly, agri-food products are produced with sustainable practices to address environmental concerns, including organic farming, water conservation, and reduced chemical inputs (Kazancoglu et al. 2024; Morais et al. 2024). As the consumer demand for healthy and organic food continues to increase, agri-food products are essential sources of nutrition (Falguera et al. 2012). Health, convenience, and sustainability trends influence their development, transforming production and consumption patterns globally (Lorek and Spangenberg 2014).

2.2 | BRT

BRT tries to understand how people create intentions or attitudes based on what they opt for and what they are against in certain behaviors (Uddin et al. 2024; Wu et al. 2024). It was brought by B. Wang et al. (2024), stating that the reasons why people do things matter a great deal in the decisions made by people because they influence their beliefs or attitudes, hence the intentions and actions of a person (Gupta and Arora 2017). The theory also distinguishes between approach and avoidance reasons—why a behavior is likely to be performed and why not (Dhir et al. 2021; Jan et al. 2023). These reasons connect the individual's values and the intended behavior towards an action (N. Ahmad and Harun 2023). These reasons are very important. They assist the person in making complex decisions where the opposing motivations are (Tandon et al. 2020; Ryan and Casidy 2018). BRT is particularly relevant in explaining consumers' decisions to purchase green products or adopt new technologies because it points to the role of reasoning in consumer value-guided behavior exhibiting situational variance (Sreen et al. 2021). This understanding is beneficial for companies and the authorities to craft policies and marketing strategies consistent with consumers' motivations and eliminate barriers to effective behavior (Ashfaq et al. 2021).

3 | Research Design

The study employed a mixed-method design, in which Phase 1 focused on exploratory study, whereas Phase 2's survey contained elements of confirmatory study. Many argue that a mixed-method study is important for capturing the intricacies and complexities of numerous varieties of this nature because it combines the strengths of both qualitative and quantitative studies (Venkatesh et al. 2013). Two approaches help to analyze the phenomenon and not only one or two aspects. These two approaches make research not only textual but also deep. Researchers using qualitative methods allow the examination of participants biologically to narrow down the sample that will be interviewed, giving a good storyline behind certain patterns or behaviors (Magnusson and Marecek 2015). This is true even for consumer behavior, health, education, or social sciences, where knowing the reasons behind given actions or decisions is as significant as measuring success for those actions or decisions (Gatersleben et al. 2002). Qualitative data allow the participants to speak for themselves and their views beyond figures. New factors or patterns that are masked in the abuse of numbers can be revealed through qualitative studies. Quantitative methods, on the other hand, enable researchers to empirically verify research questions, investigate and measure interrelationships between variables, and determine the applicability of results to larger target populations. This combination of subjective and objective enhances the study's depth; it allows the researchers to corroborate the findings that were arrived at through qualitative analysis with empirical data.

The mixed-method approach offers an effective solution to some of the weaknesses in each research type. Qualitative approaches reveal a lot of detail, but their extent to the broader populations is a weakness. In contrast, quantitative research is more generalizable; nevertheless, it fails to address the upper-level causes or meaning behind the patterns or relationships. However, mixed methods combine qualitative and quantitative approaches, offering a fuller view by checking the results with different data types (Fetters et al. 2013). For example, qualitative insights could help identify personal values or environmental beliefs that influence decisions when investigating sustainable consumption behavior. At the same time, quantitative analysis could establish the extent such factors occur in the communities. This configuration is very important for pure and applied research, where both appreciation of the "why do people do it this way?" and evidence for the "what is the evidence for this practice" is required. A mixed-method study combines qualitative in-depth and quantitative coverage and thus increases the depth, quality, and usefulness of the research findings, which is one of the most desired approaches in multidisciplinary areas where understanding and actionable views in particular problems are key factors (Skillman et al. 2019).

4 | Exploratory Study (Phase 1)

The study employed the Straussian grounded theory approach to consider context and prior knowledge as essential components of theory building (Alammar et al. 2019). Hence, it is most appropriate for the earliest stages of study. This paradigm focuses on participants' responses in terms of actions and interactions through different conditions, through open, axial, and selective coding for major occurrences and their relationships (Daengbuppha et al. 2006). In contrast to the traditional approach to grounded theory, which resists existing literature, the Straussian grounded theory appreciates prior studies as facilitating the concentration of the research (Thai et al. 2012). Such methodology was embraced by the researchers as a "Black Box" to enable the development of the sieve with the intent to purchase agri-food products model, which is devoid of preconceived notions. The study undertook a comprehensive literature review and originality of the research, where a twin slate approach is recommended to the study to advance knowledge and contribute something new.

With regard to the basic features of grounded theory, which are emergence, constant comparison, theoretical sampling, and saturation, the authors customized semistructured questions based on the literature (Ghaffari et al. 2020). For this study, answers were sought from both past information and existing evidence, and comparisons across time guided the conclusions drawn. Participant selection followed theoretical sampling, prioritizing individuals with significant insights for model development. Data collection ended upon achieving

theoretical saturation, ensuring no new patterns or concepts emerged. In this stage, the study reached out to 56 professionals with backgrounds in purchasing and using agri-food products, eventually securing 27 participants. These individuals, drawn from existing networks, provided relevant insights into agri-food products. Interviews, semistructured, facilitated deep exploration while covering essential aspects of agri-food products, generating rich qualitative data. Recorded interviews were transcribed using denaturalized transcription, and we coded the transcripts and cross-checked for accuracy, yielding axial and selective codes. BRT was then applied to analyze and structure the findings. The questions are provided below:

1. How do you feel about trying new types of agri-food products that are marketed as being healthier or more sustainable?
2. What factors influence your willingness to adopt new agri-food products that are different from what you typically purchase?
3. What benefits or advantages do you see in purchasing sustainable or innovative agri-food products?
4. How do health and environmental sustainability play a role in your decision to buy certain agri-food products?
5. What concerns or barriers do you have when considering the purchase of agri-food products that are marketed as sustainable or eco-friendly?
6. How do factors like higher prices or limited availability influence your decision not to buy certain agri-food products?
7. How would you describe your overall attitude towards sustainable or innovative agri-food products?
8. How does your perception of the quality or benefits of agri-food products affect your feelings towards them?
9. Can you explain what would motivate you to purchase agri-food products that are environmentally sustainable or healthier?
10. How likely are you to buy sustainable agri-food products in the near future, and what would influence your decision?
11. How important are environmental sustainability and eco-friendliness to you when choosing agri-food products?
12. In what ways do environmental concerns shape your purchasing decisions when it comes to agri-food products?

Appendix 1 depicted the open, axial, and selective codes we used to extract the factors. We have extracted the final factors from the exploratory study: openness to change, reasons for, reasons against, attitude, intention to purchase, and environmental concern.

The selected study variables (ethics towards purchasing agri-food products, negative purchase behavior, and concern for the environment as a moderator) are already established both theoretically and empirically in the literature on consumer choice and sustainability. BRT posits that people develop attitudes and intentions that are deeply rooted in justification, thus making the study of motivational and inhibitory reasons critical in understanding purchase behavior. Moreover, research has shown that concern for the environment has a large effect on the likelihood of sustainable consumption, which has reasons for the positive and negative influences on consumers' decisions. Considering the level of price sensitivity, trust, and accessibility in most emerging markets like India, these variables adequately explain the phenomena of consumer decision-making in the agri-food industry. The consideration of these variables allows the analysis of the most important drivers and barriers of sustainable purchasing behavior in order to provide a comprehensive view of this complex issue.

5 | Confirmatory Study (Phase 2)

5.1 | Development of Hypotheses

5.1.1 | Openness to Change

Openness to change is being ready to accept and incorporate new ideas, practices, or experiences usually guided by a growth, change, or improvement perspective (Wanberg and Banas 2000). In fact, those who are willing to change are often looking towards the outcome that may provide them with growth at the personal level, enhanced effectiveness, or even an updated sense of social and ecological responsibilities (Kollmuss and Agyeman 2002). In an organizational setup or individual setting, change encourages the pursuit of creativity, innovation, and even more achievement when people are willing to embrace new ways of doing things (Gibb 2002). It is widely acknowledged that this proclivity towards change is caused by an optimistic vision of the future and inquisitiveness, and although changes may happen, positive changes can enable growth (Cooperrider and Srivastva 2017).

H1. *Openness to change positively impacts reasons for.*

Adapting to new ways of doing things comes with an attached positive trait, which makes someone open to new ideas and experiences daily rather than shoddy, old practices (Bryant and Veroff 2017). People with this trait always have a positive perception of change and always consider it an opportunity that can help them be faster and respond to changing circumstances more favorably (Caldwell et al. 2004). Change is sometimes viewed positively, as it is commonly associated with an inquisitive spirit, an optimistic point of view, and a desire to take initiative rather than being passive in the face of challenges (Lewis 2016). This kind of attitude can lead to development as it helps individuals get over their apprehensions and uncertainties, thereby building strength and the ability to be creative and achieve in ever-changing contexts (PM et al. 2023).

H2. *Openness to change positively impacts attitude.*

Instances of unpreparedness for change may be due to fear of the unknown, a preference for the current situation, and a likelihood of risk or disruption (Weick and Sutcliffe 2011). There is reluctance towards change due to concerns about

losing control, fear of failure, or self-efficacy (Martin and Marsh 2003). Also, where there is a history of ineffective change or benefits not visible, people will resist and be negative towards change (Reichers et al. 1997). Other less emotional factors, such as concerns about time, resources, or increased workload due to change, also lead to such hesitancy (Barber and Santuzzi 2015). This hesitance can challenge growth and development, leading to missed prospects for self-reformation or invention in dynamic environments (Yang and Chiang 2019).

H3. *Openness to change positively impacts reasons against.*

5.1.2 | Reasons for, Reasons Against, Attitude, and Intention to Purchase

The supporters of changes are often in a favorable position because they accentuate the advantages of changes (Battilana et al. 2009). If people perceive a possibility of self-improvement, increased efficiency, or improved results, they are more inclined to be receptive to changes with an optimistic and curious outlook (Giles-Mathis 2023). This positive attitude is further strengthened by people's belief in their ability to change and the proactive nature of people in looking at problems, such as regarding changes as gifts that come with a chance to learn and innovate (Strauss and Parker 2018). As a result, the arguments for change, for instance, better integration of efforts or better goals and higher resilience towards barriers, lead people to actively participate in the process and adopt a philosophy of continual improvement for success (M. Kumar et al. 2011).

H4. *Reasons for positive impacts attitude.*

Arguments against change predispose people to be cautious and, in most cases, even resistant because of anticipated costs, such as the need to adjust, uncertainty, and other negative feelings (Harvey and Broyles 2010). This attitude is more or less a function of the psychological fear of failure, the human instinct to seek stability, and previous history where change was unwelcome or unpalatable (Thompson et al. 2013). However, if the risks or costs involved in change exceed the benefits that would otherwise come, people may form defensive and antagonistic mindsets valuing stability and the status quo (Heifetz and Linsky 2017). Some people may even amplify such oppositions when they perceive themselves as ill-equipped to manage the change process, thereby creating a mindset that is not conciliatory to change (Liddle 2023).

H5. *Reasons against positively impacts attitude.*

The purpose behind purchasing a product increases the intention to buy the product because it makes one appreciate its usefulness while also addressing personal values or needs (Hartmann and Apaolaza-Ibáñez 2012). When consumers consider a product able to perform certain practical objectives and promise excellence, among other values such as eco-friendliness, such reasons elevate the customer buy intentions (W. Ahmad and Zhang 2020). Likewise, the intention to purchase can also be increased by emotional and social reasons such as feeling good because of the purchase or social norms (Bagozzi et al. 2016). Clear reasons, which usually correspond with the preferences of the consumers, build trust in the product, converting the intention into a concrete action for the consumer (Bagozzi and Dholakia 1999).

H6. *Reasons for positive impacts intention to purchase.*

A person's purchasing inclination is determined by their attitude towards a brand or a product, which can be positive or negative (Pradhan et al. 2016). In other words, a desired attitude, such as when the consumer believes they made the right choice in terms of quality, worth, or one which aligns with their values, such a customer will be likely to buy the product faster (V. Kumar and Reinartz 2016). This is why a negative attitude can reduce the perceived purchase intention, making the potential buyer look for other options (S.-F. S. Chen et al. 1998). When positive emotions are backed up with reasons (satisfaction with a product, beliefs about the importance of a social and emotional context), these positive emotions create a great intention to buy and further encourage purchase processes (Kim and Lennon 2013).

H7. *Attitude positively impacts intention to purchase.*

As they draw attention to certain limitations, risks, or discordance with consumer expectations that are caused by the purchase of the product (Schirmacher et al. 2023). Some things like too high prices, low-quality perception, or lack of product congruence with the ideals of the target population usually repel clients and make them think twice about their decisions (Mullins et al. 2014). Furthermore, if previous interaction or feedback suggests unreliability, these reasons also strongly diminish confidence in the product, decreasing intentions to buy (Sullivan and Kim 2018). Such arguments about penetrative thinking always leave the consumer very cautious or skeptical and as a consequence, they are more willing to procrastinate, find substitutes, or avoid the purchase altogether (Kingwell 2019; Zhang et al. 2025).

H8. *Reasons against positively impacts intention to purchase.*

5.1.3 | Mediating Effects of Reasons for, Reasons Against, and Attitude

If the individuals are open to change, their intent to buy the product is neutralized by any reasons that they may perceive as having weight in opposition to the purchase decision (Lee et al. 2008). There could be positive reasons, such as better product quality, congruence to personal values, or environmental benefits (Nadro et al. 2024), that could strengthen insensitivity to any opposing arguments and make the individual have a high intent to purchase the product. On the other hand, reasons that could be negative, such as high prices or doubts regarding the effectiveness of the product, could soften the insensitivity and thus lower the intended purchase (Erdem et al. 2002). Attitude can be the overall mediator as it moderates and sustains the reasons and the product's purpose for which a strong intent was created—the goal and purpose of the brand will, in the end, determine the strength of the intent (Das et al. 2019). For example, an individual having a favorable attitude towards the product

or a proposed change has a stronger intention to purchase the product, while an individual whose attitude is swayed away by opposing reasons has a weak intention (Vahdat et al. 2021). The mediators along these lines form a bridge that makes one open to change within the context of the three that we have discussed and result in positive purchasing intentions towards the product.

H9a. *Reasons for is having a mediating effect on openness to change and attitude.*

H9b. *Reasons against is having a mediating effect on openness to change and attitude.*

H9c. *Attitude is having a mediating effect on reasons for and intention to purchase.*

H9d. *Attitude is having a mediating effect on reasons against and intention to purchase.*

5.1.4 | Environmental Concern as a Moderator

In the context of such openness to change, environmental issues have important moderating effects because they both provide motivations for and raise opposition to the adoption of new practices or behaviors (Sarkis et al. 2010). A common reason that individual consumers demonstrate readiness to change is that environmental conditions drive them (Gatersleben et al. 2002). It is usually the case where society has a critical appreciation for these problems that manifestations of change management become visible (By 2005). The tendency towards readiness to change bodes well for the surrounding milieu as individuals are also ready to change their behaviors and mentality looking for greener solutions (Reyes 2016). On the other hand, however, some pessimism can be considered a barrier due to the appeal of marketing a product as sustainable (Johnstone and Tan 2015). If consumers feel that the marketing promise is not credible or if the marketing suggests that an expensive product is required to make a sustainable change, pessimism can arise. Therefore, environmental issues serve "framing" roles where people look at the "pros" and the "cons" and make a conclusion on whether to change or not (Wolsko et al. 2016). Furthermore, these concerns also determine attitudes and intentions towards the purchase of products and resources (Hartmann and Apaolaza-Ibáñez 2012).

It is known that consumers exhibiting strong purchase intentions are more likely to gravitate towards the products that support their beliefs (Park et al. 2005). However, consumers' trust towards the environmental declaration of a product, or the stress related to making sustainable choices, may lead to a negative attitude and lower intention to purchase (Vermeir and Verbeke 2006). To illustrate the level of environmental concern, the level of readiness for changes as well as consumer attitudes towards a given issue create synergies that would encourage the need for marketing (Denicolai et al. 2021), and the strength of a claim and the marketing strategy of the product would dictate marketing behavior.

H10a. *Environmental concerns are having a moderating effect on openness to change and reasons for.*

H10b. *Environmental concerns are having a moderating effect on openness to change and attitude.*

H10c. *Environmental concerns are having a moderating effect on openness to change and reasons against.*

H10d. *Environmental concerns are having a moderating effect on reasons for and intention to purchase.*

H10e. *Environmental concerns are having a moderating effect on attitude and intention to purchase.*

H10f. *Environmental concerns are having a moderating effect on reasons against and intention to purchase.*

Here, Figure 1 depicts the conceptual model.

5.2 | Methodology

This section examines the research tools, data gathering procedure, and data cleaning involved in the study. A confirmatory analysis in SmartPLS 4.0 also showed the data's psychometric attributes, such as reliability and validity for assessing the model's viability and the data's fit inside it. Partial least squares structural equation modeling (PLS-SEM) was then applied to SmartPLS 4.0 to examine the hypothesized relationships between the various constructs.

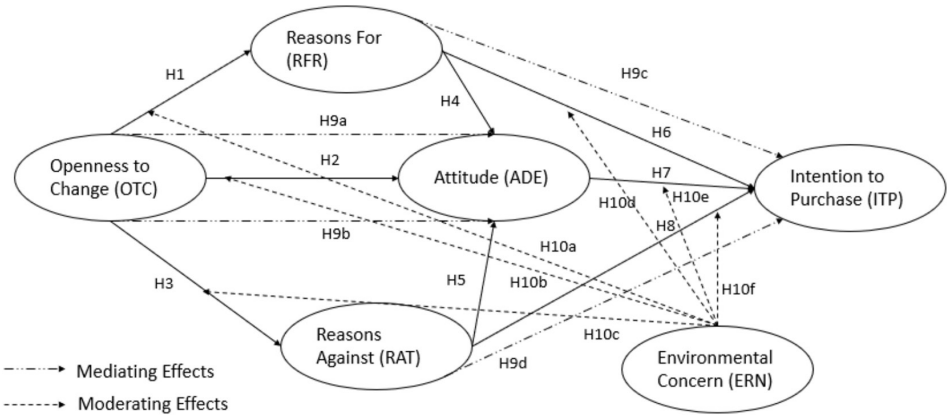

FIGURE 1 | Conceptual model.

This study's value is enhanced by the application of PLS-SEM, which allows for analyzing the interplay of multiple latent variables, especially in an emerging area of research such as agri-food consumer behavior. PLS-SEM is optimal for complex, predictive, and exploratory studies, which is helpful in determining why people buy or do not buy agri-food products when environmental concern is a moderating variable (Khan and Ponce 2022). Considering the reasoning behavior approach and the variance in consumer motivational factors, PLS-SEM accomplishes the goals of this analysis with nonnormal data distributions and small to medium sample sizes, providing accurate outcomes (Guenther et al. 2023). Moreover, it allows the simultaneous assessment of both measurement and structural models, which guarantees that the constructs are as reliable and valid as possible. This precision enables the study to provide important theoretical and practical lessons on agri-food consumers tailoring sustainable development in the agriculture and food industry, reinforcing deep insights into the phenomena of consumer behavior. Responses from respondents were gathered through the use of an online structured questionnaire. A descriptive research design and purposive sampling was employed to compile the data. Standardized scales obtained from the literature were used to adopt and adapt the questionnaire for use in the study context.

In the context of agri-food products, this study seeks to measure respondents' opinions about intention to purchase agri-food products. Given the empirical focus of the study, data collection consisted of an online survey. All of the participants were from India, and the data were collected through Google Forms using WhatsApp, email, Facebook, and LinkedIn groups. The data collection for Phase 2 was conducted between January and August 2024. In order to ensure the reliability and validity of the survey, 32 people from different fields, including management professionals and academicians, were selected. Some questions were revised to eliminate ambiguities and improve wording, thus resolving the issue of face validity. We selected constructs and items from different valid sources so as to also improve content validity. When the questionnaire was properly validated, we sent it to potential participants via email, Facebook and LinkedIn groups, and WhatsApp. Only those responses that met the requirements for inclusion were counted. The respondents' answers to the following three questions determined their eligibility:

1. Are you aware of agri-food products?
2. Have you heard of any company that is selling agri-food products?
3. Have you ever used or intended to use agri-food products?

Only those respondents who answered "yes" to all three questions were invited to proceed. Only 368 users out of over 2900 in the second phase actually completed the questionnaire correctly. Because Google Forms does not permit incomplete submissions or missing data, a total of 368 responses were gathered. In addition, users were more likely to provide candid feedback because the query pertained to their intent. The identities of the respondents were concealed to prevent social desirability bias. The respondents with diverse socioeconomic circumstances and levels of education participated in the survey. The demographic analysis results are presented in Table 1.

5.3 | Analysis

We used PLS-SEM with SmartPLS for the study. The study investigated the relationship between various independent constructs and a dependent construct, which is the intention to purchase. Further, we studied the relationship between various constructs, openness to change, reasons for, reasons against, and attitudes with responses towards intention to purchase agri-food products in studies with the moderation of environmental concern by the consumers.

Before proceeding with this, we conducted a preliminary analysis of the normality of the data. It was within threshold limits of ±3. Common method bias was conducted further to ensure

TABLE 1 | Demographic measures.

Demographic variables	Category	Frequency	Percentage
Age (in years)	Less than and equal to 25 years	56	15.22%
	Between 26 and 34 years	128	34.78%
	Between 35 and 44 years	145	39.40%
	Between 45 and 55 years	34	9.24%
	56 years and above	5	1.36%
Gender	Male	261	70.92%
	Female	107	29.08%
Income	Less than or equal to USD 700	92	25.00%
	Between USD 701 and 1200	134	36.41%
	Between USD 1201 and 1700	128	34.78%
	Between USD 1701 and 2200	12	3.26%
	USD 2201 and more than that	2	0.54%

the suitability of data, and we found that the total score of all the factors was less than 50% (Malhotra et al. 2006). The data multicollinearity was addressed by employing the variance inflation factor (VIF), which was below 5, indicating no multicollinearity issues. Table 2 depicts the factors, item numbers, factor loadings, and sources. In Appendix 2, all the items of each factor have been shown.

It is important to establish a measurement model before analyzing the structural model. It involves verifying the convergent and discriminant validity. Convergent validity is achieved when the loading and composite reliability (CR) exceed 0.7 and the average variance extracted (AVE) is above 0.5. Table 3 displays the findings of the convergent validity test. The CR values are above 0.7, and the AVEs are above 0.5. This confirms the presence of convergent validity.

Ensuring discriminant validity is essential to establish that a construct differs from other constructs based on empirical evidence. The discriminant validity is considered valid when the hetrotrait–monotrait (HTMT) ratio values are below 0.9. Table 4 displays the findings of the HTMT analysis.

TABLE 2 | Factors with sources and loadings.

Factors	Sources	Item Nos	FL	VIF
Attitude	Sreen et al. (2021)	ADE1	0.859	2.143
		ADE2	0.817	1.899
		ADE3	0.772	1.668
		ADE4	0.892	2.625
Environmental concern	C.-F. Chen et al. (2021); Dhir et al. (2021)	ERN1	0.891	2.844
		ERN2	0.887	2.628
		ERN3	0.905	3.328
		ERN4	0.91	3.498
Intention to purchase	Tandon et al. (2020)	ITP1	0.922	3.051
		ITP2	0.909	2.84
		ITP3	0.914	2.737
Openness to change	Ashfaq et al. (2021); N. Ahmad and Harun (2023)	OTC1	0.768	1.485
		OTC2	0.858	1.713
		OTC3	0.838	1.516
Reasons against	Sreen et al. (2021); Tandon et al. (2020)	RAT1	0.924	3.315
		RAT2	0.924	3.109
		RAT3	0.937	3.791
Reasons for	J. Wang et al. (2021); Tandon et al. (2020)	RFR2	0.837	1.721
		RFR3	0.888	2.034
		RFR4	0.844	1.809

TABLE 3 | Convergent validity.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
ADE	0.855	0.863	0.903	0.699
ERN	0.92	0.921	0.943	0.807
ITP	0.903	0.904	0.939	0.837
OTC	0.762	0.777	0.862	0.676
RAT	0.92	0.921	0.949	0.862
RFR	0.819	0.824	0.892	0.734

Throughout the overall sample, the VIF values were discovered to be below the recommended threshold of 5, suggesting no multicollinearity concerns. Afterward, the proposed hypotheses were examined, and the results, displayed in Table 6, demonstrate support for all hypotheses except five in the complete sample. After conducting hypothesis testing, the model's ability to explain the data was evaluated. The *R*-squared (R^2) values for the endogenous variables are provided, indicating different levels of explanatory strength. The predictive relevance of the study was assessed using *Q*-squared (Q^2) values. These values are indicating varying degrees of predictive relevance across the samples. The effect size (f^2) quantifies the magnitude of the impact of the independent variables on the dependent variable. According to Cohen (1992), effect sizes of 0.02 are considered small, 0.15 are considered medium, and 0.35 are considered large. Based on Table 5, the f^2 values have been provided. The model fit values are also provided in Table 5, indicating a good model fit.

Table 6 shows the mediation results where three associations have partial mediation, and one association has no mediation.

TABLE 4 | Discriminant validity.

	ADE	ERN	ITP	OTC	RAT	RFR
ADE						
ERN	0.209					
ITP	0.52	0.387				
OTC	0.475	0.074	0.534			
RAT	0.28	0.58	0.426	0.112		
RFR	0.429	0.125	0.443	0.394	0.09	

6 | Discussion

In the context of agri-food products, openness to change has a positive association with reasons for and attitude because individuals who are receptive to new ideas tend to embrace the benefits of sustainable and innovative agri-food options (McCarthy et al. 2016), such as health improvements, environmental sustainability, and support for local farmers. This openness aligns with positive reasons, as these individuals are likely to value the advantages of adopting newer, eco-friendly products and develop a favorable attitude towards such changes. Conversely, openness to change is negatively associated with reasons against it, as those open to innovation are less likely to be deterred by potential drawbacks, such as higher costs or limited availability. Instead of focusing on these constraints, they are motivated by the long-term benefits

TABLE 5 | Hypothesis testing results.

Paths	Hypothesis	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	*T* statistics (|O/STDEV|)	*p* values	f^2	Decision
ADE ⟶ ITP	H7	0.254	0.254	0.049	5.131	0	0.082	Supported
OTC ⟶ ADE	H2	0.295	0.295	0.051	5.781	0	0.108	Supported
OTC ⟶ RAT	H3	−0.107	−0.108	0.044	2.436	0.015	0.016	Supported
OTC ⟶ RFR	H1	0.309	0.309	0.051	6.003	0	0.108	Supported
RAT ⟶ ADE	H5	−0.119	−0.118	0.052	2.305	0.021	0.014	Supported
RAT ⟶ ITP	H8	−0.166	−0.165	0.053	3.111	0.002	0.032	Supported
RFR ⟶ ADE	H4	0.264	0.263	0.053	5.024	0	0.083	Supported
RFR ⟶ ITP	H6	0.291	0.29	0.047	6.225	0	0.108	Supported
ERN × RFR ⟶ ITP	H10d	0.084	0.083	0.045	1.854	0.064	0.011	Not Supported
ERN × ADE ⟶ ITP	H10e	0.051	0.052	0.051	0.997	0.319	0.003	Not Supported
ERN × RAT ⟶ ITP	H10f	0.178	0.179	0.056	3.176	0.002	0.033	Supported
ERN × OTC ⟶ ADE	H10b	0.073	0.073	0.046	1.596	0.111	0.008	Not Supported
ERN × OTC ⟶ RAT	H10c	0.043	0.043	0.036	1.203	0.229	0.003	Not Supported
ERN × OTC ⟶ RFR	H10a	0.099	0.098	0.051	1.954	0.051	0.013	Not Supported

R^2		Q^2 predict		Model fit
ADE	0.278	ADE	0.182	SRMR = 0.049
ITP	0.412	ITP	0.244	NFI = 0.872
RAT	0.3	RAT	0.289	
RFR	0.122	RFR	0.098	

TABLE 6 | Mediation results.

Direct effects						Indirect effects						
Paths	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	*T* statistics (|O/STDEV|)	*p* values	Paths	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	*T* statistics (|O/STDEV|)	*p* values	Mediation?
OTC ⟶ ADE	0.295	0.295	0.051	5.781	0	OTC ⟶ RFR ⟶ ADE (H9a)	0.082	0.082	0.023	3.561	0	Partial
OTC ⟶ ADE	0.295	0.295	0.051	5.781	0	OTC ⟶ RAT ⟶ ADE (H9b)	0.013	0.013	0.008	1.571	0.116	No
RFR ⟶ ITP	0.291	0.29	0.047	6.225	0	RFR ⟶ ADE ⟶ ITP (H9c)	0.067	0.067	0.019	3.586	0	Partial
RAT ⟶ ITP	−0.166	−0.165	0.053	3.111	0.002	RAT ⟶ ADE ⟶ ITP (H9d)	−0.03	−0.03	0.014	2.098	0.036	Partial

of change. They are more willing to adapt to new options that align with their values and goals for sustainable consumption, making reasons less influential in their decision-making process.

Concerning agri-food products, the reasons for purchase relate positively with purchase intentions and attitude because reasons such as health, environment, and local economy strengthen consumer's desire and positive feelings towards these products (Siddiqui et al. 2023). If consumers acknowledge agri-food products as beneficial, for example, healthier, environmentally friendly, or more sustainable, these reasons raise a positive attitude towards the products, making them more attractive. Such a positive attitude enhances the intention to purchase because the consumers are assured and resonate with the values of agri-food products. The resonance of personal beliefs with the advantages most characteristic of agri-food alternatives encourages consumers to act on their intentions to purchase, as such products are perceived to be useful for them and society at large.

Against the agri-food products context of this study, purchase reasons like higher prices, scarcity, or uncertainty regarding quality and effectiveness are found to be negatively related to both intentions to purchase as well as the attitude of the respondent (Nguyen et al. 2022). In this way, if consumers are confronted with these hurdles, it creates a sense of doubt, reducing the attractiveness of agri-food products. Negative affordability or accessibility issues may create impractical or inconvenient scenarios concerning agri-food products, leading to lower confidence and weaker consumer purchase intentions. Moreover, if the respondents do not see the benefits or the value of the agri-food products, their concerns of this nature could override any benefits, leading to wariness. So, we have the reverse; there is an urgent need for the intention to purchase agri-food products, giving people a reason to be in trauma in the first place. This reluctance lowers not just their willingness to entertain these products but their intention to purchase but focuses more on the deficiencies, hence the reasons to buy.

For agri-food products, it is clear that an attitude has a positive coefficient and remarkable strength of association with intention because a favorable attitude conveys the consumers' positive evaluations of these products and positive emotions (Salazar-Ordóñez et al. 2018). There is then the consideration that when agri-food products are perceived positively in terms of health, being environmentally friendly, or supporting the growth of local farms, the consumers are more likely to want to act towards those positive images. This is the case too for those with a strong and positive attitude towards agri-food products: their confidence in their decisions makes them believe that the purchases are in accordance with their values and lifestyle objectives. Because of this coordination between attitude and intention, consumers' resolve to buy agri-food options is made stronger as they derive a firm sense of satisfaction and dictate the purchase in that whichever agri-food products they purchase, they advocate for environmentally friendly agri-food options.

During the process of utilizing agri-food products, the factors supporting the modification of openness to change and

attitude are only partial. This is consistent with findings that strong arguments in favor of health and environmental reasons enhance the attitude but not exclusively. Change readiness enhances the acceptance of agri-food products as a positive attitude is automatically created (Schnack et al. 2024). Still, strong arguments for this construct provide a definition and further support to this attitude as consumers can justify their openness in tangible benefits. This type of mediation reinforces the view that the arguments add positive attitudes, but change readiness directly affects positive attitudes exclusively towards agri-food. In contrast, arguments against these factors do not affect the mediation of change readiness and attitude, but people open to changes are often willing to ignore or reduce opposing arguments, and as such, there is a net positive attitude. Thus, change readiness positively affects attitude through strong arguments, with the latter having less effect here.

In regard to the interaction effect, however, only attitude has a partial mediating role, while strength of intention has no impact. In the case of purchase intention, strong reasons for supportive arguments rely heavily on attitude. Attitude further enhances the effects of positive reasons in decision-making. Even in the presence of a positive attitude or positive reasons, consumers may have some level of motivation irrelevance, which in turn limits the purchase intention (Lee et al. 2008). On the contrary, reasons against also from the attitude towards purchase intent, as negative reasons may decrease a good attitude and a good attitude high purchase intention mean. Nevertheless, not all negative reasons completely change purchasing attitudes or intentions, that is, consumers can buy despite some negative aspects; if they believe positive elements are more important, the consumers have negative reasons, demonstrating a partial mediation that indicates both should matter purchase intention regardless of them having any bearing.

In the context of agri-food products, environmental concerns do not moderate the relationships between openness to change, reasons for, and attitude, as these associations are primarily influenced by personal dispositions and motivations that drive consumer attitudes independently of specific environmental concerns. Consumers who are open to change or have reasons for purchasing agri-food products are generally motivated by factors such as health, quality, or lifestyle alignment, which shape their attitudes and intentions irrespective of environmental awareness (Hyland et al. 2024). Similarly, environmental concerns do not alter the relationship between reasons for and intention to purchase, nor do they impact the link between attitude and intention to purchase, as these connections are strongly rooted in the consumer's intrinsic evaluations of product benefits. Essentially, for consumers already inclined to view agri-food products positively, environmental concerns do not significantly amplify or diminish these associations, as the motivations for purchasing are more personal or health-oriented than purely environmentally driven.

Nonetheless, the effect of environmental concern on the relationship between reasons against purchasing and intention to purchase is moderated. In the case of consumers who are already hesitant about purchasing agri-foods due to any of the factors (Ji et al. 2020), like cost or availability, worries about the environment can be a tipping factor in aiding purchase decisions despite such apprehensions. For instance, when environmental factors become pertinent, some consumers may disregard arguments against the purchase, such as high costs, and lean towards eco-friendly solutions because, in their opinion, it is more beneficial for society. As a moderating variable, this impact will considerably lower the ability of the reasons against it to weigh heavily on a consumer's mind by shifting the focus to the broader picture of being environmentally friendly and suggesting some may revise their previous position. In this way, environmental concerns constructively modify the moderation impact of negative reasons. In the presence of concern for the environment in relation to the purchase of agri-food, consumers are less likely to be put off by negative reasons.

The interactions between openness to change, reasons, attitude, and purchase intention imply that although motivation stands out as the main influencer, there are other supporting factors like social norms, government policies, and advertising that can further reinforce these relationships. As more and more consumers see strategies aimed at the marketing of sustainable agri-foods, people's willingness to change may be enhanced, which, in turn, will be reinforced by more favorable attitudes and reasons (Rivaroli et al. 2019). Furthermore, consumers' perceived behavioral control, such as how easy it is to obtain agri-foods, can either strengthen or weaken these relationships by changing the degree of trust consumers have towards their ability to adopt such products (Musa and Basir 2021). For example, when purchasing sustainable agri-foods is perceived as easy, positive attitudes and intentions may strengthen and become more immune to negative influences such as high prices or poor availability (Arhin et al. 2022). On the other hand, if barriers remain high, even positive attitudes consumers will give up trying to act on their intentions. Thus, while personal dispositions remain pivotal, wider contextual factors also matter in adopting agri-food products, accentuating the need for policy and marketing strategies that cater to motivational and practical impediments.

7 | Implications

7.1 | Theoretical Implications

This study provides valuable insights into agri-food products. It highlights the relevancy of BRT within the domain of sustainability—or how consumers form attitudes and purchase intentions. It focused on the reasons for and against purchasing women's agri-food items; the study clearly proved the consumers' cognitive processes regarding their choices as a necessity. It has been indicated that these customers are the ones who have a low level of resistance to change and are likely to purchase these items on the grounds that they are good for health and for the environment. This strengthens their positive feelings about the products. This suggests that when sustainably sourced agri-foods are marketed, it takes more than just stating their advantages; there is a need to cultivate a change-ready mentality in the consumers' minds. With the help of BRT in the analysis, some assumptions about the students' attitudes and intentions were established, while there was a different consumer practice. Being open to practices directed towards sustainable change in

agricultural products may broaden a consumer's perspective and understanding of the possibilities in the agriculture industry (Beske et al. 2014).

Additionally, the comprehensive investigation of the moderating roles of environmental determinants brings out the intricacies embedded within the purchasing behavior of consumers in the agri-food context. Although the level of environmental concerns does not change the structural relationships between openness to change and its reasons and attitudes, it influences the reason(s) against purchase intention. This suggests that personal factors and other beliefs primarily drive purchasing intentions, but the placement of the motivation on adoption consequences has an outside force: environmental concern. This statement has profound implications for agri-food businesses in that they are not only expected to formulate strategies that portray the merits of their offerings but rather seek to neutralize issues of availability, affordability, and genuineness of the consumers' concerns. Interpreting this interdependence in a more marketing-oriented way helps businesses to adopt strategies that meet the motivational needs of consumers in the most sustainable manner possible and change the existing notion of achieving business objectives to relying only on transactional processes. These theoretical perspectives, in a rather clever way, also outline future avenues for investigation in relation to consumer behavior with specific reference to the agri-food industry and suggest first steps that expand the focus from personal values and environmental concerns to include cognitive reasoning in relation to sustainable consumption.

This study deepens our understanding of the relationship between sustainability, cognition, and agri-food consumption. It does this by focusing on consumer behavior, which is essentially the behavior of different parties because of a product or group's sustainable activities. Using BRT, this study makes strides in explaining why certain target consumption relates to attitudes and intentions. This view promotes discussion on how and why fostering a change-ready mindset is critical to overcoming resistance and promoting sustainability. Although new academics have advanced this discourse, synergies between the cognitive and affective dimensions of decision-making with sustainable consumption are rarely discussed. These ideas could be further developed in other disciplines, including behavioral economics and environmental psychology, to examine how more general social, cultural, and ecological conditions influence consumer reasoning about sustainability and agri-food products.

The integration of BRT with other well-developed approaches, like the theory of planned behavior and value–belief–norm theory, requires further consideration. Behavioral justifications may operate in tandem with normative and control influences within frameworks where sustainable consumption behaviors are examined. Future efforts might also consider the longitudinal impacts of change readiness and cognitive reasoning on sustained behavioral change, particularly in the agriculturally based food industry, to evaluate whether positive attitudes guarantee the requisite behavioral commitment over time. Alongside this, new paradigms can be developed with regard to the role of digital interventions, such as personalized prompts and AI-driven nudges, that encourage positive reasoning towards sustainable consumption of agri-food products. This study motivates further reasoning-based decision-making research that is truly interdisciplinary in nature, integrating consumer psychology, behavioral economics, and sustainability studies, thereby deepening the scope of work on sustainable consumption and advancing the discourse on its theoretical underpinning.

7.2 | Practical Implications

The results from this research are of extreme significance to the agri-food sector and the businesses wishing to position themselves in a more attractive light in the eyes of the consumers. To begin with, health and the environment are important and positive marketing factors that need to be communicated to the consumers. In this way, these attributes can be used by businesses to bolster positive attitudes and purchase intentions of consumers through effective marketing techniques, such as advertising, appropriate labeling, environmentally friendly packing, and educational campaigns. This strategy makes sense in highly price-sensitive markets like India, where offering a convincing reason to the consumers concerning the long-term benefits of such sustainable practices would alleviate worries about the high price and limited availability of such practices. Besides, agri-food businesses might also try to enter into a collaboration with local farmers and draw attention to supporting local communities which would further resonate with customers' values and reasoning.

In addition, explaining the doubts connected to agri-food purchases is also important for those who wish to reach out to a wider audience. To address such issues as lacking trust in the legitimacy of the offering or even the quality of the products, such firms must make people trust them through demonstrable trust such as supply chains, certifications, and even customer reviews. It can also be the case of introducing such programs by which the consumers can interact directly with the producers or pay to be environmentally friendly. In addition, they should evaluate the emergence of changes related to the environmental focus of consumers and adjust their communication policy to the new focused value. By dealing with both encouraging and discouraging factors affecting consumer behavior in a balanced manner, agri-food companies will be able to ensure their dominance in innovation and sustainability, leading to improved business performance.

This research can be effectively augmented by agri-food companies engaging with consumers and building trust through digital technologies and data usage. For example, using blockchain for enhanced supply chain management provides product and environmental sustainability assurance as it addresses authenticity issues. Moreover, business entities may design mobile applications or other engaging platforms that give comprehensive details concerning the sourcing, production, and environmental impacts so that consumers can make informed decisions. Furthermore, marketers can initiate positive purchase behavior by using consumer health-oriented advertising strategies. Furthermore, positive long-standing behavior changes can be accomplished through enhanced collaboration with nongovernmental organizations and educational institutions focusing on fostering sustainable consumption. These strategies, in tandem with focusing on building communities and caring for

the environment, place agri-food companies at the forefront of the emerging market while responding to consumer needs and global sustainability objectives.

Also, agri-food companies have an opportunity to utilize artificial intelligence (AI) and big data analytics to analyze consumer preferences and craft appropriate marketing strategies. AI-based recommendation systems can assist consumers with sustainable agri-food products, considering their previous purchasing habits, diet, and environmental issues (Nath et al. 2024). Also, AR and VR technologies can be incorporated into business websites so that users can virtually visit the farms, study the production processes, and learn the company's sustainability policies, thus increasing transparency and trust. The public can also be motivated to become more engaged by loyalty programs that reward sustainable purchasing, such as discounts for returning buyers of eco-friendly products or incentives for used packaging products. With the incorporation of these technology-based strategies together with traditional sustainability programs, agri-food businesses can achieve a competitive edge while creating an informed and eco-friendly society.

8 | Limitations and Future Research

This study has drawbacks because it concentrates on agri-food products, and it might not represent consumer behavior within some other sectors. The use of self-reported data may undercut the findings, and it is a suggestion that further studies should utilize a longitudinal approach or experimental designs instead to examine causality. Further, it can also be useful to see the effect of demographic variables like age and income, on the attitude towards sustainable food products. The marketing of agri-food products through digital space, and social media in particular, might also be an area of study as other spheres are crucial to the understanding of current practices of sustainable buying patterns. Future studies within the agri-foods and sustainability scope might further examine the use of blockchain and traceability technologies for consumer trust building and the improvement of transparency in sustainable food supply chains. Furthermore, how policy measures, subsidies, and incentives influence the use of sustainable agri-food products by consumers warrants study, as it could tip the balance for governments and businesses. Another aspect of research would be the emerging trends, for instance, plant-based diets, regenerative farming, and local sourcing, and how they affect sustainable consumption behavior and consumer attitudes to agri-food products. The self-reported cross-sectional data may introduce biases such as social desirability and common method variance, which further restricts the methodology of the study. Additionally, the use of purposive sampling alongside the online surveys may restrict the breadth of the findings pertaining to different consumer segments and regions.

9 | Conclusion

This study examines the relationships between openness to change and attitude towards purchasing agri-food products in relation to sustainability. It also shows the validity of purchasing and consumption justification, as well as grooves of obstacles like perceived cons of products. As an increasing number of consumers express their interest in sustainable food systems, agri-foods can exploit these relationships to formulate marketing strategies that create awareness about positive attributes while downplaying the force of negative ones. The results make room for further study on agri-food markets and consumers where the need has already been indicated for how environmental issues influence buyers.

Author Contributions

Andrea Appolloni: conceptualization, methodology, writing, review, and editing. **Debarun Chakraborty:** conceptualization, data curation, methodology, writing, review, and editing.

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Conflicts of Interest

The authors declare no conflicts of interest.

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Appendix 1

Final Constructs From Exploratory Study

Open codes	Axial codes	Selective codes
I'm always open to trying new food products, especially if they claim to be healthier or eco-friendlier. I like the idea of supporting innovations in food production that help reduce environmental impact. I'm not too open to change when it comes to food. I prefer sticking to what I know and like, but if the new product comes highly recommended by experts or has solid evidence of health benefits, I might consider trying it.	Always open to healthier options Prefer familiar products, hesitant.	Openness to change
The health advantages encourage me to purchase agri-food products that are more environmentally friendly. I also enjoy the fact that I am contributing to local farmers and decreasing my carbon emissions by opting for these options. I like the concept of consuming something that is both more nutritious and kinder to the planet. It makes me feel responsible if the product is organic or sustainably accredited.	Health benefits and environmental impact. Supports local farmers, eco-friendly.	Reasons for
The higher cost is a factor that puts me off. I appreciate the advantages; however, I sometimes think the cost does not make sense, especially when there are less expensive options. I am concerned about how common these products are. It is not always possible to get them at normal supermarkets, making it even more difficult for me to quit my regular purchases.	Higher costs, limited availability concerns. Price and accessibility are issues.	Reasons against
I look at sustainable agri-food products in a favorable light. In my opinion, they not only improve my health and well-being but also help in augmenting the future conditions of the planet. Sustainable food sounds great, but I have some reservations about it. I ask myself whether the standard is really that high in comparison to conventional food and whether the advantages fully justify the cost.	Positive towards sustainable food choices. Skeptical but open to improvements.	Attitude
I am definitely planning to purchase more sustainable agri-food products in the future. If I find more options that fit my budget, I will prioritize them over regular food products. I'm not sure if I'll make a conscious effort to buy sustainable agri-food products. It depends on whether I find them in stores or if the price difference is not too significant.	Plan to buy if affordable. Might purchase depending on price.	Intention to purchase
Environmental sustainability is a major factor in my decision to buy agri-food products. I want to do my part in reducing waste and supporting agricultural practices that do not harm the planet. I do care about the environment, but when it comes to food, I prioritize convenience and price more. If the environmental benefits are clear and the product is not much more expensive, I'll consider it.	Concerned about sustainability and impact. Care about the environment, occasionally.	Environmental concern

Appendix 2

Items, Factor Loadings, and Sources

Factors	Items	Sources	Item Nos	FL	VIF
Attitude	Overall, I feel AFPs are very good products to consume	Sreen et al. (2021)	ADE1	0.859	2.143
	Using AFPs will offer me many benefits		ADE2	0.817	1.899
	It is valuable to use AFPs		ADE3	0.772	1.668
	AFPs have long-lasting benefits		ADE4	0.892	2.625
Environmental concern	I have read newsletters, magazines, and so forth, written by environmental groups about AFPs	C.-F. Chen et al. (2021); Dhir et al. (2021)	ERN1	0.891	2.844
	I have signed a petition in support of protecting the environment		ERN2	0.887	2.628
	I always believe that environmentally friendly products are always better to use		ERN3	0.905	3.328
	I always support products that help the environment by making them sustainable and less harmful		ERN4	0.91	3.498
Intention to purchase	I am happy to buy AFPs in the future	Tandon et al. (2020)	ITP1	0.922	3.051
	I am very much interested in buying AFPs		ITP2	0.909	2.84
	I would like to buy the AFPs as I support environmentally friendly products		ITP3	0.914	2.737
Openness to change	I am always fine with changes happening around me	Ashfaq et al. (2021); N. Ahmad and Harun (2023)	OTC1	0.768	1.485
	I would love to try food products which is environmentally friendly		OTC2	0.858	1.713
	I am ready for new experiences in food products		OTC3	0.838	1.516
Reasons against	I feel AFPs are the same like normal food products	Sreen et al. (2021); Tandon et al. (2020)	RAT1	0.924	3.315
	AFPs have less in variety		RAT2	0.924	3.109
	In my opinion, AFPs are not perfect; they are also having some problems like normal food products do have		RAT3	0.937	3.791
Reasons for	AFPS content for natural ingredients and minerals	J. Wang et al. (2021); Tandon et al. (2020)	RFR2	0.837	1.721
	AFPs are nutritious		RFR3	0.888	2.034
	AFPs contain less preservatives and harmful chemicals		RFR4	0.844	1.809