

Examining Indian Organic Food Purchase Behavior

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Abstract

The aim of the study is to investigate the factors influencing consumer purchase intentions for organic food in India, focusing on the roles of traceability, certification, packaging, transparency, and the moderating effect on social media. The study is significant as it sheds light on the factors influencing organic food consumption in India, a growing market with unique socio-economic and cultural dynamics. It highlights the role of traceability, certification, packaging, transparency, and social media in shaping consumer attitudes and purchase intentions, offering valuable insights for businesses to better cater to diverse customer groups and promote sustainable consumption. The study used a structured survey of 398 Indian consumers and analyzed data through Structural Equation Modeling (SEM) based on the Theory of Planned Behavior (TPB), focusing on traceability, certification, packaging, transparency, and the moderating role of social media on purchase intentions for organic food. The study found that traceability, certification, and transparency significantly influence consumer attitudes and purchase intentions for organic food in India, while social media moderates these effects, emphasizing its importance in engaging customers. The study found that traceability, certification, and transparency positively impact consumer attitudes and purchase intentions for organic food in India, with social media interaction playing a moderating role in enhancing customer engagement. Future studies could explore the influence of regional cultural differences, expand the sample size, and examine emerging factors like e-commerce and sustainability in organic food purchasing behavior.

Keywords: Consumer Attitudes, Indian Consumers, Organic Food, Purchase Behavior, Sustainable Consumption.

Introduction

Individuals prefer to consume foods that are both healthier and more sustainable. The transformation is the outcome of improved knowledge about how food affects both health and the environment. People and corporations both place a great value on food. Because of this significant step forward, production, economics, and requirements will all grow (1). Found that persons who spend more money, have more health information, and live faster lives tend to consume healthier and more nutritious foods. Wild harvesting systems that are controlled utilizing organic methods. Customers who care about their health, environmentally conscious consumers, and the fact that there are 835 thousand organic farms all contribute to organic food's growing appeal (2). Currently, food manufacturing caters to all persons and meets customer wants by providing both functional and non-functional products. Every year, food contamination causes 550 million cases of diarrhea and 2, 30,000 unintentional deaths. The research, tainted food exacerbates the cycle of disease and hunger, especially among the young,

aged, and unwell. Organic food demand is being fueled by both a healthier population and a consumer trend toward more ecologically conscious shopping (3). The best strategy to safeguard the environment is to avoid manufacturing items containing antibiotics or growth hormones (4). Another study found that consumers care about the origin of their food because it benefits both the environment and their culture (5). This is in addition to people's concerns about food quality (6). Fresh fruits and vegetables are currently the most popular organic foods in India. There is evidence that organic certificates support the claims made by manufacturers and distributors. Packaging promotes product protection as well as environmental responsibility. Environmentally responsible and organic food production. Pesticides, synthetic fertilizers, hormones, and antibiotics are examples of chemicals that are not used in the production of organic foods. Customers who purchase luxury products want to know everything about the product, including where it comes from. Organic Products provide

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environmental and health benefits such as nutritional content, certification, flavour, quality, and cost. However, the price of organic products does not always affect how much of them are consumed (7, 8). Found that customers' perceptions of agricultural products vary based on their concerns about food safety. Understanding the interaction of these components is essential in modern food systems. Trust can be developed by tracking organic food from farm to plate. Traditional cuisine is prevalent all over the world. Organic food production and sales are expanding across Asia (9). The organic business is growing by 10-30% and is currently worth \$33 billion globally. According to the study's findings, these goods could be worth more if they were marketed as entirely new food categories, such as organic foods (10). "The traceability of organic food from its source to the consumer's plate builds trust in the supply chain. Organic certificates authenticate the claims made by manufacturers and distributors. Packaging promotes sustainable methods, environmental responsibility, and the impact of organic products. Many underdeveloped countries are finally adopting healthier eating habits, as opposed to more developed ones. At the end of 2018, India had 5.78 million hectares of organic cultivable land, all of which was used to produce certified organic goods (11). The total area covered by organic farming expanded from 11 million hectares in 1999 to 72.3 million hectares in 2019. The number of people in India who consume organic food has increased over the last decade. Despite the country's significant food expenditures, India's food retail sector has been fraught with confusion (12). In India, the percentage of money spent on home-cooked meals has declined from 90% to 80%. More Indians eat out than cook at home. These people are willing to pay a higher premium for items linked to their health and body. Organic food sales are expected to rise as more people become aware of its quality, safety, and environmental benefits, as well as its direct impact on their health, lifestyle, and social convenience (13). The majority of definitions of organic food place a primary emphasis on the "organic philosophy," which encompasses the technology, production methods, and ideas that are applied (14). The terms "biological" and "natural production

system" are stressed in a variety of different ways as stated by those who place an emphasis on the fact that organic agriculture makes use of a small quantity of synthetic chemicals or its principles. According to the findings of a study that was conducted in 2009, organic food is able to preserve its nutritional content because it does not contain any chemicals, preservatives, or irradiation. One distinguishing feature of organic food is that it does not contain any types of chemical fertilizers, pesticides, or growth hormones (15). An avoidance of antibiotics and growth hormones is recommended when it comes to the consumption of animal products. Organic foods are those that have not been irradiated, include industrial solvents, contain chemical food additives, contain genetically modified organisms (GMOs), or have been produced using synthetic pesticides and fertilizers. Such foods are considered to be organic (16). India is the country with the highest percentage of organic farming. Insufficient for two fields is more than eighty per cent of the total. Companies that export organic products on a lower scale are not included in this category. The only place where smallholder farmers can sell their produce is within their own country because there is no market. The country of India has witnessed the construction of more than 15,000 organic farms that contain certification.

Traceability

Defining "traceability" as "The ability to trace" without defining "to trace" is not how people use the word and focus on selective features or supply chain parts. After explaining and analyzing all of these interpretations, the authors created a better definition, which is used for this study and debate. Thus, traceability is "the ability to access any or all information about a product throughout its life cycle using recorded identifications." (17). Additionally, organic agriculture uses natural inputs and crop rotation while outlawing pesticides, synthetic fertilizers, antibiotics for animals, genetically modified seeds, and preservatives. Distribution, wholesale, and retail networks connect organic food producers to consumers, creating a comprehensive agricultural food supply chain (18). Traceability tools help companies find the cause and scope of problems with safety or quality control. Companies should invest in traceability systems because they help

reduce the production and distribution of unsafe or low-quality goods. This lowers the risk of bad press, lawsuits, and product recalls (19). Innovating IoT technologies like those above are pushing merchants to create traceability solutions. However, developing strong brands, gaining quality certifications, and putting up traceability systems are expensive marketing methods that increase sales (20, 21).

H1a: Traceability positively influences the attitude.

H1b: Traceability positively influences the purchase intention.

Certificate

Organic quality certification can reassure consumers of healthy living and sustainable farming (22). Since quality certification delivers agricultural products with high-value functional features, customers can pay the "trust premium" for them. With quality certification, producers can increase market share and organic food power. Quality-certified producers must evaluate their agricultural products for quality and traceability before selling. Our purpose is to provide customers with certification information to help them screen and buy products. Farm product certification ensures safety. Marks can make farm items easy to find while making them reliable (23). Certified farmers cannot use illegal pesticides or fail the annual sampling evaluation of agricultural products. Even if the annual agricultural goods sampling inspection fulfils standards this will happen (24). To avoid losing their quality certification, farmers would work harder to control the quality of their produce. Their business would suffer if they lost certification. Companies that make agricultural products must meet all certification norms (25). Consumers value organic food and certification differently depending on the country. Italy and Poland had higher trust and preferred EU certification, while Germany and the UK had lower trust and preferred national certification.

H2a: Certificate positively impacts attitude.

H2b: Certificate positively impacts purchase intention.

Packaging

Before buying, customers see and touch a product's packaging (26). Various packaging design features can send customers signals. Material and packaging design greatly affect

consumer perception (27). Organic production may not contain these hazardous compounds. How eco-friendly a package appears to potential purchasers depends on its packaging material, manufacturing procedure, and market attractiveness (28). As stores become more convenient, more packing materials are needed. This is mostly because single-use containers are used so often throughout the supply chain. Some of the things that are causing this trend are the opening of more big shops, the growth of the global market, and the fact that supply networks depend on disposable packaging systems. National and industry trends affect single-use packaging, layout, and POS. Optimization of material consumption per packed volume has been a problem for decades. "Packaging Strategies: A Knowledge Outlook on Consumer Buying Behavior" studies marketing packaging (29). For organic food buyers, safety, packaging, knowledge, attitude, ecological concern, brand labelling, gender, values, age, income, etc., are important. Recent packaging innovations have increased shelf life, quality, and safety, reducing food waste. Migration into food is another consideration when choosing food packaging materials (30).

H3a: Packaging positively impacts attitude.

H3b: Packaging positively impacts purchase intention.

Product Transparency

Studies have demonstrated that product satisfaction depends on product transparency, which is a clear picture of current items. Organic food is also free of weed killers, bactericides, manure, pesticides, GMOs, and irradiation. An earlier study characterized organic food as local, natural, and unpolluted (31). The cost of organic food is the main barrier. Psychographic characteristics have challenged the importance of income in consumer behavior. Due to product information imprecision, organic consumers were less sensitive to product information than non-organic or occasional customers (32). Many government initiatives, including Decree 109/2018/ND-CP on organic culture and food safety, have promoted organic food company growth. Organic food manufacturers and retailers have worked hard to expand their distribution network and offer a variety of vegetables, cereals, and meat. According to the researcher, free

samples and price reduction influence consumer buying behaviors. Free samples and discounts increase sales. The third largest agricultural commodity, organic food, is worth about \$400 billion and accounts for 14% of global agricultural trade (33). Research on environmentally conscious consumption has increased during the past 30 years.

H4a: Product transparency positively affects attitude.

H4b: Product transparency positively affects purchase intention.

Theory of Planned Behavior (TPB)

According to Icek Ajzen's Theory of Planned Behavior (TPB), which was published in 1991, the components that characterize a person's intention to make a purchase are their attitude, their subjective norm, and their perceived behavioral control (34). These factors take into account a person's perception of their own ability to regulate their behavior. It has been discovered that a number of studies on environmentally responsible purchasing have made use of TPB structures (35). Made the revelation that the TPB is a helpful instrument for analyzing ecologically conscious purchase decisions. This discovery has resulted in the demand for additional studies to be carried out. Based on the findings of the majority of studies conducted by the TPB (36). Has been determined that the primary factors that influence an individual's desire to purchase environmentally friendly products are their attitude, subjective norms, and perceived behavioral control.

Attitude: The level of performance that a person achieves is directly proportional to the way that they think. Consumers who purchase products that are favorable to the environment are more likely to have a positive expectation regarding green consumption. Having a favorable attitude toward the environment is a factor that influences the desire of consumers in India to purchase things that are responsible for the environment. Found that their findings were comparable to those of other researchers. In addition, we found that the opinions of Indian consumers had an impact, both directly and indirectly, on the purchasing of products that are favorable to the environment (37). The attitudes act as a mediator between the impacts. The research found that consumers' attitudes and their level of

environmental awareness had an impact on their intention to engage in environmentally conscious shopping. In order to comprehend ecologically responsible consumption, it is vital to have beliefs that are favorable to the environment (38). Who made this finding, "the role of the attitude in consumer studies has not been fully addressed" in past studies? This is the conclusion that researchers have reached. Their ultimate conclusion was that "more research using a direct link between attitude and green purchase intention is needed to try to overcome unreliable measures of intention." This was eventually the consequence of their findings.

H5: Attitude has a positive impact on purchase intention

Subjective Norms: The likelihood that consumers will engage in various actions is significantly correlated with the opinions of their close friends and family members, and this association is significant enough to be considered significant. have pointed out, this idea is referred to as "subjective norms" in their research publications. Individuals are prompted to rethink their standards of worth and to make adjustments to their buying habits as a result of the influence of subjective norms, as stated by (39). Social pressure to behave in a more ecologically responsible manner has been recognized as a potential moderating impact in the corpus of research that has been undertaken on environmental behavior. This research pertains to the study of environmental behavior. According to the findings of a study that was conducted in 2019 by Do Paco and colleagues, individuals are more inclined to take action in the same direction when they are part of a group that is responsible for environmental action. There are, however, studies that raise issues about whether or not these regulations have an effect on the behaviors of customers. (40). Are the authors of the aforementioned studies. According to Taufique and Vaithianathan, who conducted an analysis of personal values, the "direct effect on behavioral intention" was "insignificant." However, "their influence on green consumption has not been confirmed yet." The pressure that exists in society to behave in a particular manner is reflected in the norms, which are a mirror of that pressure (41).

H6: Subjective norms' positive impacts on purchase intention

Perceived Behavioral Control: One of the most important factors to take into account during this decision-making process is whether or not an individual believes they are capable of making purchases that are responsible for the environment (42). The term "self-efficacy" describes the extent to which an individual is self-assured in his or her existing capabilities. When it comes to determining whether or not a person will purchase environmentally friendly products, the question of a person's financial status is a crucial aspect, as stated by. A consumer's level of "perceived behavioral control" over a product is a good indicator of how easy or difficult it is to use. This control is measured by how much control the consumer feels they have over the product (43). States that some authors believe that perceived behavioral control is made up of two variables: perceived controllability, which refers to the extent to which individuals believe they have the ability to influence their behavior, and perceived self-efficacy, which refers to the degree to which individuals are confident in their capacity to successfully complete a specific task without any assistance. Both of these variables are considered to be components of perceived behavioral control. It is proposed that the following theory be considered in light of the information that was offered earlier. Following is an explanation of the hypothesis that is being offered here:

H7: Subjective norms positively impact purchase intention

Social Media Interactivity

In 1998, Jensen Web/social Scholars of digital marketing emphasize interaction. The literature called a company's ability to let stakeholders chat online engagement. Extra definition. How effectively marketers use the Internet to build client relationships and distribute their message. Business respects social media because customers can share and receive information. These sites help buyers (44). As internet media sites improve, people are more likely to share a brand's benefits, stories, and traits online. These discussions can enhance customer-provider commerce (45). Social media helps customers, companies, and others share organic food information in text, video, and audio formats. Many companies are using online marketing strategies to encourage

consumers to share their experiences on social media to capitalize on electronic word-of-mouth (E-WOM) due to consumer advertising avoidance. Food safety is the knowledge that a food product will not hurt or infect people during manufacture, serving, or consumption (46).

H8a: Interaction on social media changes the link between being able to track someone down and wanting to buy something.

H8b: Interaction on social media lessens the effect of awards on the desire to buy.

H8c: Interaction on social media lessens the effect of packing on the decision to buy.

H8d: The effect of product transparency on buy intention is lessened by interaction on social media.

Purchase Intention

Well-informed and educated consumers are more likely to purchase organic food, Organic products are readily available, but Norwegian consumers do not seem to see any major advantages to buying them. This finding suggests that people's levels of awareness and their perceptions of their value may differ depending on where they live. Various studies have demonstrated conflicting effects of income on purchases of organic food. showing that some customers value affordability more than anything else and that others are prepared to pay more for organic items because of the benefits they believe they provide. Taste, food safety, environmental concerns, and animal welfare are some of the other elements that impact consumer behavior (47). Furthermore, research shows that organic products have a variety of appealing qualities that influence customer choices, including being healthy, fresh, pleasant, and nutritious. Furthermore, as pointed out by the choice to purchase organic food is heavily influenced by subjective norms and personal beliefs. Especially in regions where environmental consciousness is a strong cultural value, consumer decisions toward organic solutions can be heavily influenced by social factors, such as family and peer preferences (48). This work contributes to the Field by investigating the following objectives. The goal of this study is to find out what makes Indian customers feel and want to buy organic food. It specifically looks into how certifications, openness, and traceability affect how people feel about a product and whether attitudes, subjective

rules, and the idea that someone can control their behavior affect how people see things and how much they want to buy them. The research also looks at how social media affects people's views on organic food standards and how interacting with brands on social media affects their plans to buy. Finally, it looks at what makes people buy organic food and how businesses can best encourage people to make environmentally-friendly purchases.

Research Gap

After a thorough review of the literature, it became clear that certain gaps deserve attention. Terms of understanding the interaction of factors that influence the organic food purchasing behavior of Indian consumers. To be more specific, it is necessary to: Explore a wider variety of demographic characteristics, including the following: Investigate the ways in which customer preferences and decisions are influenced by factors like as age, gender, income, education, and reasons for organic food choices. Few studies have looked at the Indian setting, which is marked by fast urbanization, rising health consciousness, and distinct socio-economic and cultural dynamics, even though there is a growing interest in organic food consumption worldwide. There is a dearth of research that takes social media into account when analyzing the moderating effect of traceability, certification, packaging, and

transparency on consumers' intents to buy. Given the growing importance of these elements in creating consumer views, it is crucial to address this gap in research, especially in India's diversified and dynamic market. Additionally, there is a lack of integration of social media as a moderating element in the Theory of Planned Behavior (TPB), particularly in the organic food arena, despite TPB's widespread application in consumer behavior research. This study fills in those blanks and gives companies useful information they can use to connect Indian consumers and encourage sustainable consumption habits through social media, certification, and traceability. Many studies have looked at how people behave when they buy organic food, but not many have focused on the Indian market, where different social, economic, and cultural factors affect buying decisions. Also, most studies that have been done so far don't look at the effects of traceability, certification, packaging, and openness all at the same time, let alone how social media affects these things. Based on the Theory of Planned Behavior (TPB), this study fills in these gaps by looking at real-life factors that affect people's plans to buy organic food. It meets a very important need for businesses to adapt their strategies to India's varied and changing customer base.

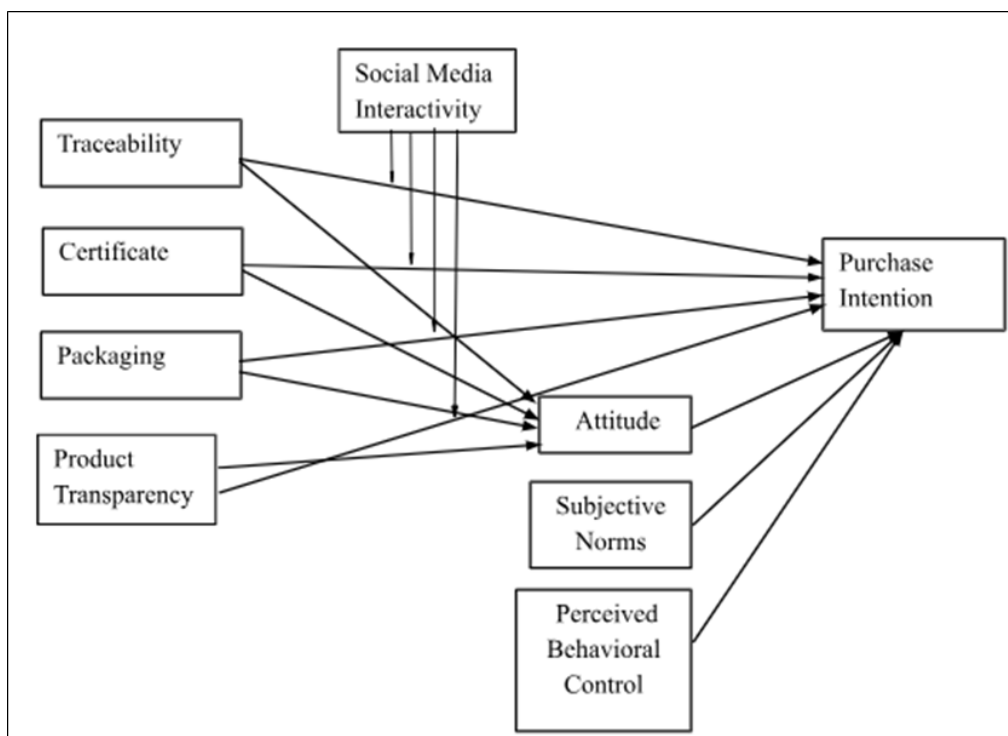


Figure 1: Research Model

Figure 1 shows the study model that looks at how traceability, certification, packaging, product transparency, and social media interaction affect people's plans to buy organic food. It shows how attitude, subjective standards, and perceived behavioral control play a part in determining a consumer's decision to buy.

Methodology

The study's sample size was estimated using information from earlier studies. At first, 410 Indian volunteers filled out the surveys. However, the method for processing the data ended up using 398 surveys since 12 responders left some questions unanswered. The survey was given in English to Indians who buy organic food and was filled out by those people. The survey and details about the study's goals were sent out online.

There were two parts to the form. In the first part, there were 33 questions, and in the second section, demographic information was asked about things like gender, age, education, monthly income, and family size, reasons for choosing organic food, location, and food preferences. A 5-point Likert scale was used to count the answers, with one meaning "strongly disagree" and five meaning "strongly agree." Traceability, certification, packaging, and product transparency were all independent factors. Attitude, subjective standards, and perceived behavioural control were used as mediating variables. To test the suggested hypothesis, the Andrew Hayes process macro test was added to the adjusted statistical models.

Table 1: Demographic Characteristics of a Sample

Demographics Variables (N= 398)	Valid %
Gender	
Male	60.3
Female	38.9
I prefer not to say	0.5
Others	0.3
Age	
18- 30 Years	35.2
31- 40 Years	54.3
41- 50 Years	7.3
51- 60 Years	1.8
Above 60 Years	1.5
Education	
High school	61.6
Intermediate	21.6
Graduation	7.3
Post-Graduation	6.3
MPhil/Ph.D.	3.3
Monthly Income	
Less than 10,000	7.8
10,000 – 30,000	60.1
31,000 – 50,000	20.9
51,000 – 70,000	6.3
Above 70,000	5.0
No. of Family Members	
0 -1	22.6
2 - 3	28.6
3 – 4	7.0
4 – 5	28.4
More than 5	13.3
Reason for Organic Food Choice	

Better Taste	16.1
Health concerns	24.6
Fresh Products	17.6
Environment Friendly	31.7
Try something new	10.1
Area	
Urban region	20.9
Semi-Urban region	32.7
Rural Region	46.5
Food Preference	
Vegetarian	61.6
Non- vegetarian	27.9
Vegan	10.6

In Table 1 the demographic information (N=398) shows that most of the members are men (60.3%), between the ages of 31 and 40 (54.3%), have a high school diploma (61.6%), and make between \$10,000 and \$30,000 a month (60.1%). Most people who choose organic food live in rural areas (46.5%), are vegetarian (61.6%), and do so because they want to be good to the world (31.7%).

Data Analysis

A CFA was performed to assess convergent and discriminant validity and the hypotheses were assessed using SEM in AMOS 24. Multiple indices were used to confirm the model's goodness of fit. First, the relative value of the 2 divided by the degrees of freedom (2/df) was computed, and the value was found to be acceptable because it was less than 3.0. (49-51).

Table 2: Reliability and Validity of Model

Model Constructs	Questions	Load Factor	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Traceability	T1	.741	0.925	0.942	0.764
	T2	.808			
	T3	.846			
	T4	.860			
	T5	.798			
Certificate	C1	.764	0.913	0.914	0.728
	C2	.809			
	C3	.826			
	C4	.802			
Packaging	P1	.748	0.902	0.902	0.698
	P2	.782			
	P3	.788			
	P4	.783			
Product Transparency	PT1	.803	0.941	0.942	0.802
	PT2	.743			
	PT3	.743			
	PT4	.789			
Attitude (AC)	A1	.826	0.927	0.928	0.764
	A2	.862			
	A3	.803			
	A4	.799			
Subjective norms (SN)	SN1	.857	0.990	0.990	0.970
	SN2	.863			
	SN3	.853			
Perceived	PBC1	.876	0.913	0.913	0.779

behavioral	PBC2	.834			
control (PBC)	PBC3	.826			
Social media	SMI1	.765	0.925	0.927	0.809
Interactivity	SMI2	.721			
	SMI3	.739			
Purchase	PI1	.735	0.954	0.954	0.874
intention	PI2	.730			
	PI3	.735			

Table 2 shows the measurement constructs together with reliability and validity metrics, as well as factor loadings. Tests for traceability, certifications, packaging, transparency, and

behavioral variables impacting purchase intention are well-structured, with all constructs demonstrating good reliability (Cronbach's alpha > 0.9, CR > 0.9) and strong validity (AVE > 0.7).

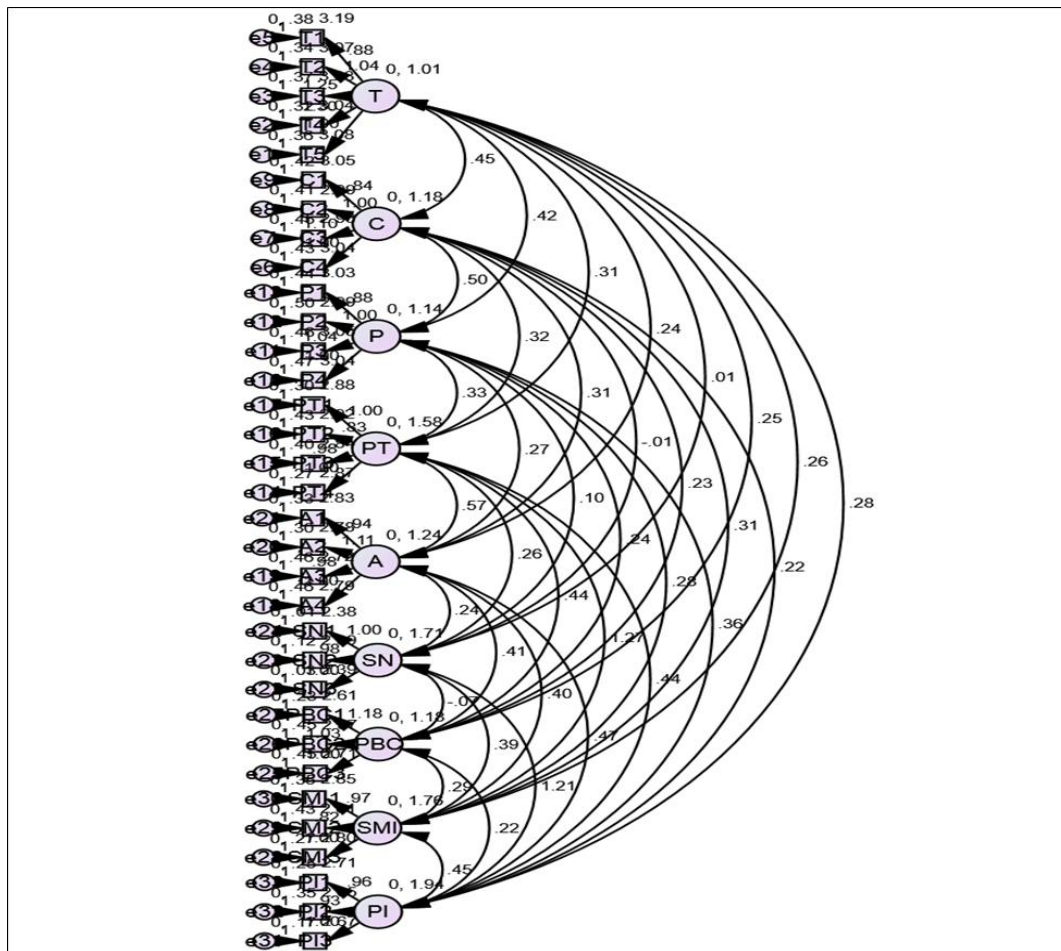


Figure 2: Measurement Model

The measurement model (Figure 2) shows good internal consistency and convergent validity with all factor loadings above 0.7, Cronbach's alpha and composite reliability (CR) over 0.9, and AVE values above 0.7. Indicators for traceability, credentials, packaging, transparency, and behavioral aspects are well-represented, facilitating further study.

Findings

The nine-component measurement model (Attitude, Subjective Norms, Perceived Behavioral Control, Traceability, Certificate, Packaging, Product Transparency, Social Media Interactivity, and Purchase Intention) was tested for reliability and convergent validity using Cronbach's alpha values of 0.7, composite reliability of 0.7, and AVE of 0.5. Convergent validity is verified when AVE values are larger than 0.50 and composite reliability CR is greater than AVE (52, 53).

Table 3: Measurement Model

	Cronbach's Alpha	CR	AVE
Traceability	0.939	0.942	0.764
Certificate	0.913	0.914	0.728
Packaging	0.902	0.902	0.698
Product Transparency	0.941	0.942	0.802
Attitude	0.927	0.928	0.764
Subjective norms	0.990	0.990	0.970
Perceived behavioural control	0.913	0.913	0.779
Social media interactivity	0.925	0.927	0.809
Purchase intention	0.954	0.954	0.874

The square root of each construct's AVE values was compared to each pair of constructs' correlation values to evaluate discriminant validity. Discriminant validity is proven when the square root of the AVE (SR AVE) values exceeds the correlations between construct pairs (54). The model was examined using SEM after meeting convergent and discriminate validity

requirements. In Table 3, Composite Reliability (CR) and Cronbach's Alpha (a measure of internal consistency) values more than 0.9 show that the constructs are valid and reliable, as seen in the table Analyzable constructs are those with AVE values above 0.7, which indicate sufficient convergent validity.

Table 4: Discriminate Validity

	PI	T	C	P	PT	A	SN	PBC	SMI
PI	0.935								
T	0.201	0.874							
C	0.142	0.413	0.853						
P	0.244	0.394	0.429	0.835					
PT	0.252	0.247	0.234	0.243	0.896				
A	0.301	0.216	0.256	0.224	0.410	0.874			
SN	0.665	0.007	-0.011	0.070	0.159	0.167	0.985		
PBC	0.147	0.230	0.198	0.211	0.320	0.337	-0.047	0.883	
SMI	0.245	0.193	0.213	0.196	0.763	0.268	0.223	0.200	0.900

In Table 4, inter-construct correlations and square root of AVE (diagonal values) show construct discriminate validity. Differential validity is confirmed by diagonal values exceeding construct correlations. Buy intention (PI), traceability (T), and social media interactivity (SMI) are quantified separately, ensuring model robustness.

Model Fit and Hypothesis Testing in Structural Equations Modeling (SEM)

To accept or reject hypotheses, a maximum likelihood SEM was created. Investigated the correlations between the nine model variables. The findings of maximum likelihood estimation showed that the data satisfied the goodness-of-fit indicator: NFI = 0.924; IFI = 0.956; TLI =0.950; CFI =0.956; RMSEA =0.057 (55, 56). After having examined the relationships between the nine variables in the hypothesized model, seven hypotheses were accepted, and four were rejected.

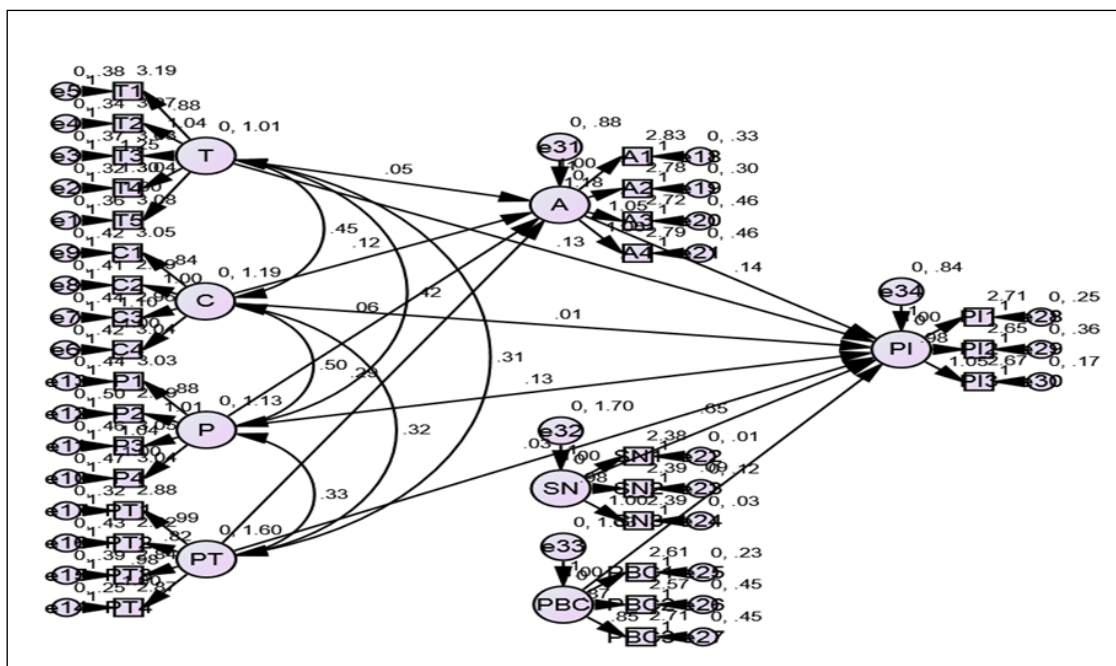


Figure 3: Structural Model Results

In Figure 3, it shows the hypothesized links are confirmed by substantial path coefficients (β -values) between important constructs in the structural model. Well-fitting model indices, such as RMSEA (<0.08), CFI (>0.90), TLI (>0.90), and SRMR (<0.08), validate its analysis suitability.

Results

This research looks at how product transparency, certification, packaging, and traceability affect consumers' propensity to buy. According to the results, attitude was unaffected by traceability ($b = 0.052, p = 0.366$), which contradicts H1a. This result goes against what has been found in previous research on the knowledge and attitudes of rural Thai food producers regarding traceability (57, 58). Consistent with earlier studies here we find that traceability does influence purchase intent ($b = 0.103, p = 0.026$), lending credence to H1b. Consistent with other research that investigated the attitudes of Indonesian food operators toward halal certification, certification had a favorable effect on attitude ($b = 0.124, p = 0.040$), lending credence to H2a. The results did not support H2b since certification had no effect on purchase intent ($b = 0.012, p = 0.802$). Consistent with previous studies (59, 60). We additionally discover this result. A halal certification, in conjunction with the four Ps of marketing: product, place, pricing, and promotion, has been associated with intent to buy. The results did not support H3a, as previously found (61).

That attitude was unaffected by packaging ($b = 0.065, p = 0.280$). Consistent with previous research (62) and our own findings, packaging did influence consumers' propensity to buy ($b = 0.110, p = 0.021$), lending credence to H3b. According to this research, the size of packaging for organic foods affects whether or not consumers intend to buy them. Previous research has demonstrated that product transparency has a beneficial effect on attitude ($b = 0.352, p = 0.000$), lending credence to H4a (63). Attitudes regarding saving and borrowing, as well as the openness of banks, were the primary foci of these research. Unfortunately, the results did not support H4b because product transparency negatively affected purchase intention ($b = 0.028, p = 0.528$). Previous research looked at how supply chain transparency affected customer views and intentions to buy clothes (64), but this new discovery contradicts that. H5, as supported by previous research, was supported by the favorable and statistically significant change from attitude to purchasing intention ($b = 0.110, p = 0.014$). Among the first studies to do so, this one measures consumers' intentions to buy organic products using components from the Theory of Planned Behavior (TPB). Consistent with earlier research. We found that subjective norms had a favorable effect on purchasing intention ($b = 0.656, p = 0.000$), lending credence to H6. In the TPB model, opinions on organic food are impacted

by factors related to health, the environment, and quality. A favorable correlation between perceived behavioral control and purchasing intention was observed ($b = 0.090$, $p = 0.024$), lending credence to H7. A number of previous researches corroborate this finding. When it comes to buying organic products, people's emotions and perceptions of traditions also matter. Product availability boosts purchase desire, but price has no effect on perceived behavioral control. Due to the fact that participation in social media decreased traceability ($b = 0.047$, $p = 0.214$), H8a cannot be accepted. Certification, on the other hand, increased engagement on social media ($b = 0.046$, $p = 0.004$), lending credence to H8b. Participation in social media negatively affected packaging ($b = 0.047$, $p = 0.613$), ruling out H8c.

In a similar vein, the impact of social media involvement on product transparency was not statistically significant ($b = 0.545$, $p = 0.239$), there of rejecting H8d. The results of this study highlight the need for additional research on the purchasing intentions of Indian customers regarding organic products in the organic food industry. This research has the potential to explain why Indian consumers aren't more likely to buy environmentally friendly goods. This study employed the TPB framework to examine the impact of Indian consumers' attitudes, subjective norms and perceived behavioural control on their intentions to purchase organic products. The possible effects on purchase intent of factors including certification, transparency, packaging, and traceability were also considered.

Table 5: Regression Weights: (Group Number 1 - Default Model)

Hypotheses	Relationships	SE (β)	p-value	Results
H1a	A T	.052	.366	Insignificant
H1b	PI T	.103	.026	Significant
H2a	A C	.124	.040	Significant
H2b	PI ▼ C	.012	.802	Insignificant
H3a	A ▼ P	.065	.280	Insignificant
H3b	PI ▼ P	.110	.021	Significant
H4a	A ► PT	.352	***	Significant
H4b	PI ► PT	.028	.528	Insignificant
H5	PI A	.110	.014	Significant
H6	PI SN	.656	***	Significant
H7	PI PBC	.090	.024	Significant

Table 5 summarizes structural model hypothesis testing outcomes. Traceability (T), certifications (C), packaging (P), product transparency (PT), subjective norms (SN), attitude (A), and perceived

behavioral control (PBC) all have links to purchase intention (PI). Paths T, C, and PT with PI are insignificant. P-values < 0.05 or *** indicate significant pathways.

Table 6: Indirect Effects

Hypotheses	Hypothesized Direction	SE (β)	p	Decision
H8a	T SMI	.0470	.2143	IS
H8b	C SMI	.0461	.0042	S
H8c	P SMI	.0475	.6130	IS
H8d	PT SMI	.0545	.2395	IS

Indirect effects of product transparency (PT), certifications (C), packaging (P), and traceability (T) on social media interaction (SMI) are evaluated in Table 6. While other constructs (T, P, and PT) do not show any significant impacts ($p >$

0.05), a significant association is discovered between certificates (C) and SMI ($p = 0.0042$). This demonstrates how accreditation affects engagement on social media.

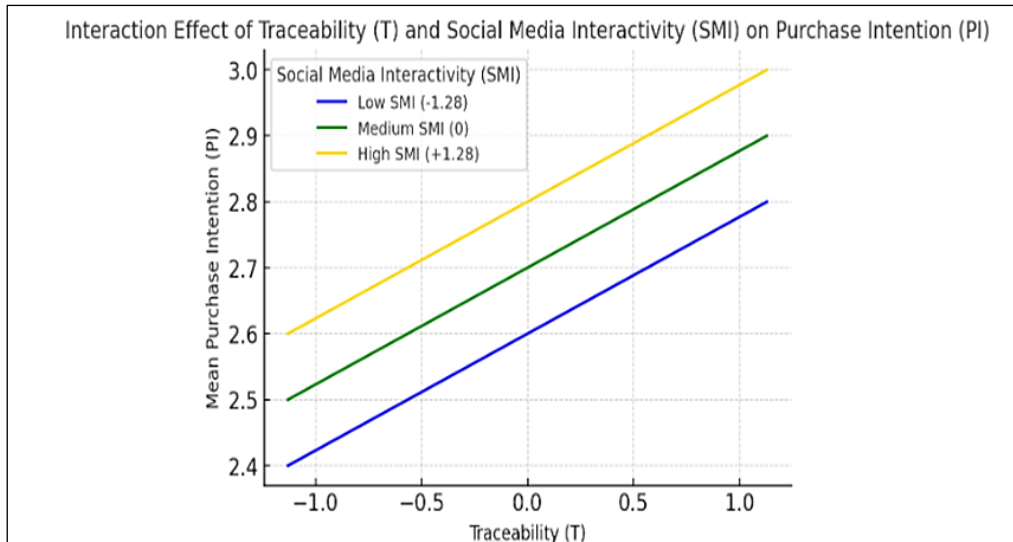


Figure 4: Traceability

The improved graph (Figure 4) shows how traceability (T) and social media interaction (SMI) affect likely purchase intention (PI). Whereas the Y-axis shows mean purchase intention and the X-axis shows traceability values. The legend shows three different levels of SMI using different colors: low (-1.28), middle (0.00), and high (1.28). There

is a positive relationship between traceability and purchase intention, and the connection gets stronger as SMI levels rise. Clarity is ensured by using the right axis names, units, and gridlines, which allows a full understanding of the interaction effect.

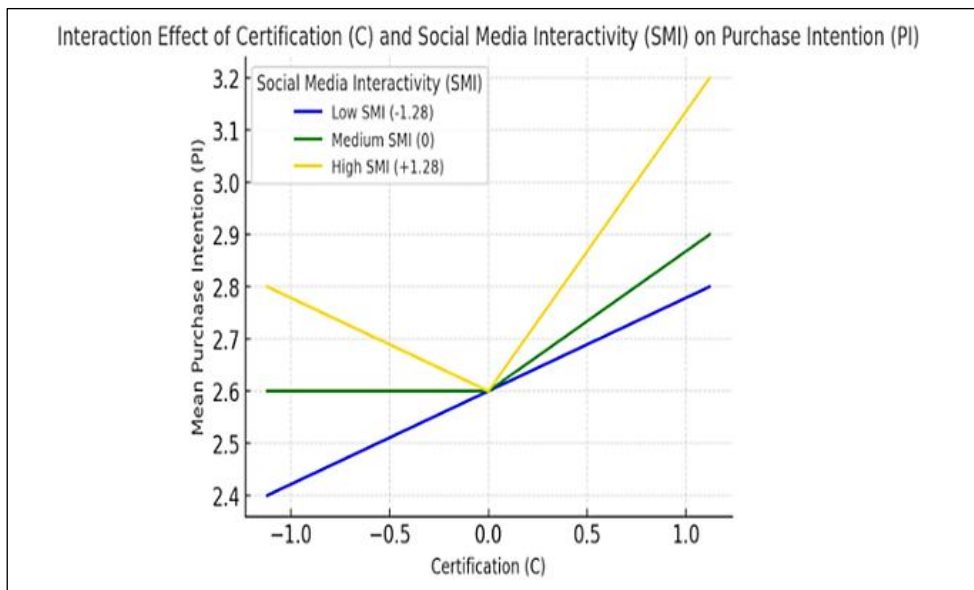


Figure 5: Certificate

The graph (Figure 5) shows how certification (C) and social media interaction (SMI) affect people's plans to buy (PI). The Y-axis shows the average purchase intention, and the X-axis shows the amount of certification. This gives a clear picture of how people act. The legend shows the difference between low, medium, and high SMI

levels by using different colored lines that make them easier to understand. This improved graph shows how different levels of social media activity affect the link between certification and buy intention, making it easier to see and comprehend this moderated effect.

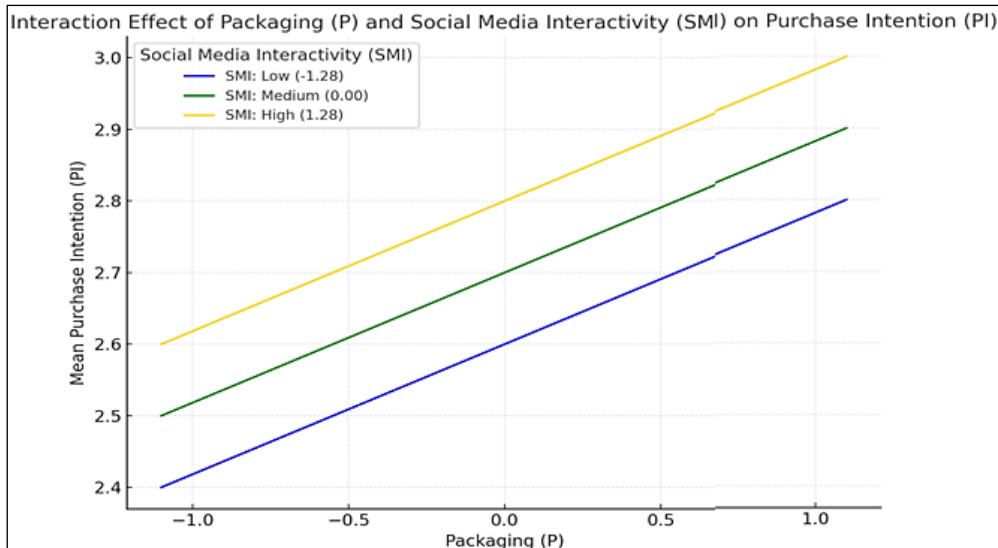


Figure 6: Packaging

Packaging (P) and social media interaction (SMI) have an effect on buy intention (PI), which is shown in the graph (Figure 6). The x-axis shows the packaging, the y-axis shows the average buy intention, and the legend uses different colors to make the SMI levels (low, medium, and high) stand out. Packaging (P) and social media interaction (SMI) have an effect on purchase intention (PI), which is shown in the improved

graph. The x-axis shows the packaging, and the y-axis shows the average desire to buy. The legend shows the different amounts of SMI (low, medium, and high) by using different line colors for each. Gridlines and clear labels make things easier to understand, which highlights the positive link between packaging and buy intention, which is tempered by social media interaction.

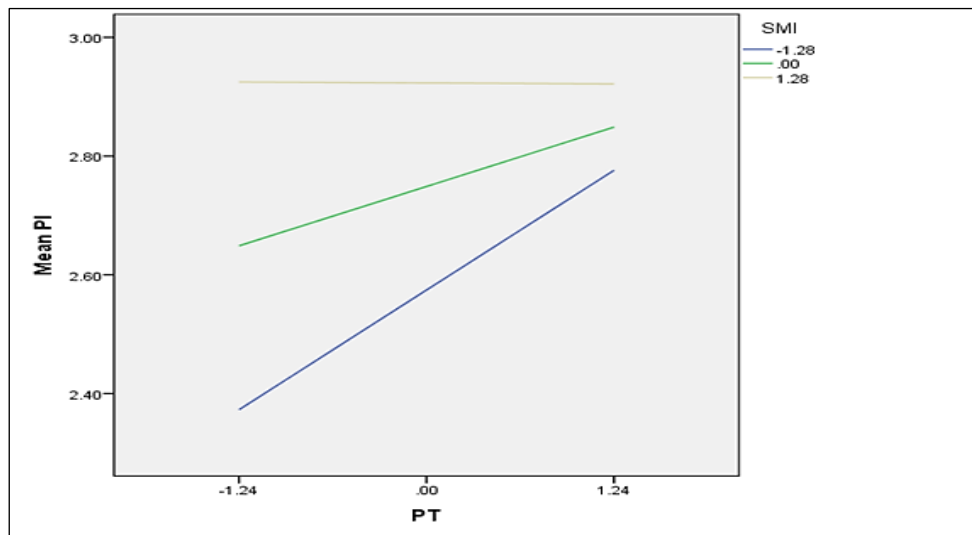


Figure 7: Product Transparency

Some changes should be made to this Figure 7 to make it simpler and easier to understand. A good title should describe the relationship being looked at, like how social media interaction (SMI) and product transparency (PT) affect buy intention (PI). The y-axis should say "Mean Purchase Intention (PI)" to make it clear what is being tracked, and the x-axis should say "Product Transparency (PT)". With clear line colors, the

legend should show the different amounts of SMI (low, medium, and high). The graph will be easier to understand and give more information after these changes.

Discussion

Insights into Indian consumers' intentions to purchase organic food could be gleaned from this survey. The results can inform marketing and

product strategies for organic food firms in India by providing a better idea of the purchasing intent of Indian customers. The findings show that characteristics like certifications, packaging, product transparency, and purchasing intention have a big impact on the spending habits of this demographic of consumers. Companies looking to attract customers in India should take the initiative to address these factors. In addition, the study highlights how crucial it is to customize marketing campaigns to suit the specific requirements and tastes of Indian consumers, who could place different values on organic food products than those in more affluent countries. The study may have some bias because it used a convenience sampling method, which depends on people who are easy to reach instead of making sure that the sample is a good representation of the target population. This method makes it harder to use the results in other situations because the group might not fully represent the range of Indian consumers in terms of age, gender, income, culture, or location. Also, convenience sampling makes it more likely that some groups, like people who live in cities or are good with technology, will be overrepresented while others, like people who live in rural areas and may have different opinions about organic food, will be underrepresented. The study's use of an online survey could leave out certain groups, like people who live in rural places or don't have easy access to the internet. This could cause sampling bias. This limitation limits the range of people who can answer and means that the views of all Indian consumers may not be fully captured. This is especially true for people who may have different feelings about organic food because of differences in their socioeconomic status or where they live. Another important insight is that social media only moderately influences how consumers view environmentally friendly products. This means that marketers should carefully combine online involvement with accurate information. The study also shows that when it comes to buying organic food in India, factors like price, availability, and perceived behavioral control are quite important. To keep up with the increasing demand for organic foods, companies need to market their products competitively, provide competitive pricing, and make sure they are widely available. This may be achieved by recognizing these

dynamics. This study has substantial policy implications for Indian organic food promotion. The government may address pricing and accessibility by supporting organic growers, encouraging organic certification, and increasing supply chain transparency. To encourage customers choose organic food, education can highlight its health, environmental, and social benefits. Policymakers, corporations, and social media platforms may increase digital interaction to make organic food more appealing to different consumer groups. Sustainable agriculture and organic food can grow in India's market with these strategies. Future research could complement surveys with experimental designs or behavioral data to validate findings. Third, the sample size of 398 participants, while sufficient for Structural Equation Modeling (SEM), could be expanded to enhance statistical power and allow for subgroup analyses. Additionally, the cross-sectional nature of the study limits its ability to infer causal relationships. Longitudinal studies could explore how consumer attitudes and purchase intentions evolve over time. Lastly, while the study highlights key factors like traceability and transparency, future research could incorporate emerging trends such as e-commerce platforms, sustainability certifications, and regional cultural differences to provide a more comprehensive understanding of organic food consumption in India.

Conclusion

In the event that we were to investigate a more diverse sample of clients, independent of the affiliations they have, we would be able to acquire a more comprehensive understanding of the purchasing patterns of this particular group. Cultural characteristics like regional food choices and religious beliefs may help explain regional attitudes and buying intentions. Demand may be affected by religious beliefs or organic food preferences. Understanding these cultural differences would help firms customize their methods to regional and cultural norms, making organic food products more appealing to varied consumer groups. To understand Indian organic food consumption, future study should include these elements. The study indicated that traceability, certification, and transparency strongly influence Indian organic food consumers' sentiments and purchases. Social media

interactivity moderates these parameters, increasing customer engagement and their influence. Transparency and social media engagement are crucial to consumer trust, according to these studies. Research implications include studying regional and cultural differences in consumer behavior and new trends like e-commerce uptake and organic food sustainability. Businesses should improve traceability, obtain trustworthy certifications, and promote transparency to develop confidence and attract customers. Strategic social media use can help firms reach varied consumer groups and promote sustainable consumption in the developing Indian organic food market. This is a risk that is associated with the fact that they can be unpredictable. Due to the fact that they typically rely on members of their family to fulfill their consumption requirements, it may be difficult for them to shift to the patterns of consumption that they have created over the course of their lifetime.

Future Directions

Future study could use probability sampling methods, like stratified random sampling, to get more information from a wide range of consumer groups based on things like age, income, and location. Systematic random sampling could also provide a more diverse group of participants by picking respondents from a bigger population on a regular basis. Quote sampling is another option. In this method, researchers set specific limits for different demographic groups to make sure that everyone is fairly represented. These methods would make the study more reliable and help us learn more about the things that affect Indians' plans to buy organic food. Future research could use mixed-method data collection to overcome this problem. Participants without internet access could be included by combining online surveys with face-to-face interviews, telephone surveys, or paper questionnaires. Community-based groups or local intermediaries can distribute surveys in remote areas to improve inclusion and produce a more representative sample, improving population representation. Future studies should assess Indian customers' price sensitivity and identify the demographics and income groups most affected. Subsidies, promotions, and sharing the long-term health and environmental benefits of organic food may assist overcome this obstacle. Businesses can adjust pricing to make organic

food more accessible and appealing by studying price sensitivity.

Abbreviations

SEM: Structural Equation Modeling, TPB: Theory of Planned Behavior.

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Author Contributions

K. Mohammed Abrar: Conceptualization, Methodology, Gathering and analyzing data, Writing, and preparing an initial draft; Dr. Anil Verma: Composing, Assessing, Revising, And Supervising.

Ethics Approval

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Conflict of Interest

There are no conflicts of interest.

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