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Cross-cultural variations in motives and barriers for organic food consumption: a narrative review

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Current dietary practices significantly contribute to environmental degradation, with organic food consumption emerging as a viable alternative for promoting sustainability. This review explores the diverse motivations and barriers influencing organic food consumption, drawing comparisons between developing and developed countries. A systematic review of 67 peer-reviewed studies published after 2018 up to March 2025 was conducted, sourced from databases such as PubMed, Google Scholar, ScienceDirect, and Scopus. Of the included studies; 43 were from developing countries, 21 were from developed countries, and 3 offered comparative insights between organic food consumption patterns in developing and developed countries. The findings reveal that while health and environmental concerns are universal drivers for organic food consumption, significant differences exist in the specific motivations and barriers across regions. In developing countries, the high cost and limited availability of organic foods were identified as the primary barriers, whereas consumers in developed nations face skepticism toward certification and labeling systems. The influence of demographic factors such as age, income, and education varied, with younger consumers in developed countries showing a greater propensity for organic food consumption than their counterparts in developing nations. Moreover, social consciousness and ethical considerations were more pronounced in developed countries, highlighting a broader awareness of global environmental issues. This review highlights the need for targeted strategies to overcome barriers and promote organic food consumption globally, particularly in regions where the market is still emerging.

KEYWORDS

organic food, motivations, barriers, developing countries, developed countries, sustainability, consumer behavior

1 Introduction

Food insecurity remains a critical issue globally, with many nations facing the dual burden of undernutrition and overnutrition (World Health Organization, 2016). Among the key factors driving malnutrition, unhealthy diets are a significant contributor. These diets are a leading cause of disability-adjusted life years (DALYs) lost and are closely linked to increased mortality worldwide (GBD 2017 Diet Collaborators, 2019). Moreover, current dietary patterns are unsustainable, causing significant environmental damage, including pollution, biodiversity loss, deforestation, and climate change (Willett et al., 2019). The agricultural and food sectors contribute over a quarter of global greenhouse gas emissions each year, underscoring the critical role of dietary choices in food system sustainability (Tilman and Clark, 2014). The

Food and Agriculture Organization (FAO) defines sustainable diets as those that are biodiversity-friendly, respect ecosystems, are culturally acceptable, accessible, economically fair, affordable, nutritionally adequate, safe, and healthy while optimizing natural and human resources (Burlingame and Dernini, 2012). As consumer awareness of food sustainability grows, many seek alternatives to conventional food products, recognizing the impact of their choices on the environment (Vittersø and Tangeland, 2015). Organic foods, produced according to organic farming standards and processed without synthetic chemicals, are integral to sustainable diets (Giampieri et al., 2022; Baudry et al., 2017; Kesse-Guyot et al., 2022). Recognizing this, European policymakers have actively promoted organic food consumption as part of a broader strategy to foster sustainable food systems. The latest European Union organic food regulation emphasizes organic production's role in conserving natural resources, supporting climate and environmental initiatives, enhancing biodiversity, and meeting the increasing consumer demand for naturally processed products (Schmidt, 2019).

The various motivations for organic food consumption have been studied extensively (Pino et al., 2012; Bryła, 2016; Teng and Lu, 2016; Yilmaz and Ilter, 2017; Feil et al., 2020; Petrescu et al., 2017; Chekima et al., 2017; Michaelidou and Hassan, 2010). These motivations range from ethical and environmental concerns to specific product attributes, health considerations, food safety, and support for local economies (Hemmerling et al., 2015; Schleenbecker and Hamm, 2013; Rana and Paul, 2017). Purchasing decisions often reflect an individual's commitment to organic principles (Hughner et al., 2007; Wier et al., 2008; Padel and Foster, 2005), with regular buyers typically motivated by ethical considerations, while occasional consumers are more influenced by health concerns (Pino et al., 2012; Michaelidou and Hassan, 2008). Among younger consumers, environmental concern is a powerful motivator (Hoffman and Wivstad, 2015; Pearson et al., 2013). Additionally, the motivations for choosing organic foods can vary depending on the product category; for example, concerns about chemical content are more pronounced for organic fruits and vegetables than for organic dairy products (Padel and Foster, 2005). Developed and developing countries are working to increase demand for organic farming, although the motives and barriers influencing this demand vary by region. Understanding the specific factors that drive or hinder organic food consumption in different contexts is crucial. Therefore, this review aims to compare the motives and barriers to organic food consumption between developing countries, where the organic market is still emerging, and developed countries, where the market is more established.

2 Methodology

A comprehensive literature search was conducted across several academic databases, including PubMed, Google Scholar, ScienceDirect, and Scopus. The search strategy employed a combination of key terms, such as 'organic foods,' 'consumer attitudes,' 'purchase intentions,' 'willingness to pay,' 'consumer knowledge,' 'market demand,' 'buying determinants,' 'motivations,' 'obstacles,' 'developed countries,' and 'developing countries.' In addition to the database search, the reference lists of all identified articles were reviewed to ensure the inclusion of relevant literature. Specific inclusion criteria were applied to maintain the relevance and

quality of the reviewed literature. Only peer-reviewed articles published after 2018 up to March 2025, in English, and with full-text availability were considered. The focus was on studies addressing various organic products, including fruits and vegetables, honey, meat, wine, and coffee. Exclusions were made for book chapters, conference proceedings, theses, dissertations, and works addressing broader sustainability or food safety concepts, such as green, pesticide-free, environmentally friendly, or safe products. Systematic reviews and meta-analyses were also excluded, although their references were explored to ensure a thorough investigation into the motivations and barriers influencing organic food consumption. The initial search identified 106 studies. After a careful review of abstracts to ensure adherence to the inclusion criteria and the removal of duplicates, 60 articles remained. An additional seven studies were identified through reference list searches, resulting in 67 articles. Of these, 43 focused on developing countries, 21 on developed countries, and 3 provided comparative insights across developing and developed countries. Please refer to Table 1 for summary of studies from developing countries by region, and Table 2 for a summary of studies from developed countries by region.

3 Overview of organic foods and their growing demand

Organic food production is grounded in the principles of sustainable development, aiming to safeguard the planet and support the wellbeing of current and future generations without harming the environment (Mørk et al., 2017). Organic foods are defined by their production methods: they are grown without synthetic chemicals (such as pesticides, fertilizers, and additives), genetically modified organisms (GMOs), or exposure to irradiation (Gad Mohsen and Dacko, 2013; Mesnage et al., 2020). They must also adhere to stringent production, processing, distribution, and preservation standards, making them a healthier, nutrient-rich alternative to conventional foods (Gad Mohsen and Dacko, 2013; Dubé et al., 2014; Chan, 2001). The global consumer demand for organic foods is rising, with organic farming now practised in nearly 162 countries across 37 million hectares (FiBL and IFOAM–Organics International, 2021). Initially prevalent in wealthier nations, organic food consumption has seen worldwide growth, leading to a market valued at approximately €90 billion globally (FiBL and IFOAM–Organics International, 2021). The United States leads with a market worth €40 billion, followed by Germany, France, China, and Italy (FiBL and IFOAM–Organics International, 2021). In the Middle East region, the United Arab Emirates ranks among the top 30 global markets, with an expected compound annual growth rate of 4.3% from 2021 to 2025 (Global Organic Trade Guide, n.d.). This increased demand reflects a growing consumer awareness of sustainability's health, environmental, economic, and social aspects (Wojciechowska-Solis and Barska, 2021; Scholl-Grissemann, 2018). Organic farming is celebrated for maintaining ecological balance and enhancing local producers' and consumers' wellbeing, fostering biodiversity, employing eco-friendly practices, and conserving natural resources (Arcese et al., 2015). It also prioritizes animal welfare and aligns with consumer preferences for naturally produced goods. This approach to food production offers dual benefits: it meets the demand for organic products, often at a

TABLE 1 Summary of studies from developing countries by region.

Region	Source	Country	Sample size	Methods	Motives* (In descending order if suggested)	Barriers
South Asia	Iqbal et al. (2021)	Pakistan	268	Survey	Health consciousness and food safety	
	Akbar et al. (2019)	Pakistan	221	Survey	Functional value, social value, emotional value, and conditional value	
	Asif et al. (2018)	Pakistan	271	Survey	Attitude and health consciousness Subjective norms	
	Rani et al. (2018)	Pakistan	40	Survey	Age, employment status, income, education, number of children, taste, no chemical residual, high nutritional value, freshness and color of the vegetables	
	Srivastava (2021)	India	122	Survey	Attitude, health concern, product quality and knowledge	
	Basha and Lal (2019)	India	1,300	Survey	Environmental concerns, health and lifestyle, product quality, support toward local farmers, convenience and price, safety and trust, and subjective norms	
	Kamboj et al. (2023)	India	294	Survey	Functional value quality, social norms, green trust, consumer innovativeness	Lack of availability, lack of knowledge
	Chakraborty et al. (2024)	India	Phase I: 376 Phase II: 351	Survey and interview		Value barriers, image barriers
	Raj et al. (2024)	India	278	Survey	Health consciousness, environmental concern, impact of COVID-19	Limited availability
	Rashid and Lone (2024)	India	323	Survey	Attitude, health consciousness, social norms, environmental concern	
	Shrestha and Baral (2019)	Nepal	114	Survey and interview	Gender, occupation, income level and education of respondents, and awareness about chemical residue absence in organic agriculture products, perception of higher nutrition on organic products and health consciousness	
	Guragain (2024)	Nepal	57	Survey	Health concerns, environmental care	Perceived price, limited availability, subjective norms
	Chowdhury et al. (2024)	Bangladesh	391	Survey	Health-related considerations, environment-related considerations	
	Asif et al. (2018)	Iran	220	Survey	Environmental concern Attitude, health consciousness, Subjective norms	
	Sobhanifard (2018)	Iran	Interview: 15 Survey: 546	Interview & survey	Marketing, perceived naturalness, trust and sanitary	
	Bazhan et al. (2024)	Iran	520	Survey	Attitude, subjective norms, health consciousness, environmental concern, perceived convenience, sensory characteristics, educational level	Perceived price
East Asia	Wang et al. (2020)	China	518	Survey	Environmental conciseness	
	Chu (2018)	China	1,421	Survey	Positive attitude, health consciousness, environment awareness, subjective norm, and marketing communication	
	Zhu (2018)	China	260	Survey	Attitude and ecological motive	
	Li and Shan (2025)	China	413	Survey	Health consciousness, environmental awareness, attitude, subjective norms, PBC	

(Continued)

TABLE 1 (Continued)

Region	Source	Country	Sample size	Methods	Motives* (In descending order if suggested)	Barriers
Southeast Asia	Nguyen et al. (2019)	Vietnam	609	Survey	Environmental concern, safety concern, health consciousness, organic food knowledge, green market practices	Price
	Pham et al. (2019)	Vietnam	289	Survey	Health consciousness, food safety concerns, media exposure, environmental concern and food taste*	Inadequate availability, high price, poor labeling and extra time required
	Saleki et al. (2019)	Malaysia	246	Survey	Attitude, subjective norm, PBC, moral norm, self-identity and environmental concern	
	Chekima et al. (2019)	Malaysia	150	Survey	Product-specific attitude, perceived availability	
	Mohd (2018)	Malaysia	200	Survey	Corporate reputation, and product image*	
	Cavite (2025)	Thailand	499	Survey	Attitude, PBC, trust in organic food	
	Winterstein et al. (2024)	Thailand	30	In-depth interviews	Quality of personal life, personal wellbeing, family responsibility	
	Septiani et al. (2024)	Indonesia	180	Survey	Health consciousness, perceived quality	
	Putri and Yusup (2024)	Indonesia	205	Survey	LOHAS consumption tendency, perceived consumer effectiveness	
Western Asia	Tleis et al. (2019)	Lebanon	180	Survey	Quality of life, pleasure, and peace of mind ^a Care for nature, and care for children's health ^b	
	Asif et al. (2018)	Turkey	245	Survey	Attitude and health consciousness Subjective norms, PBC	
	Konuk (2018)	Turkey	274	Survey	Health consciousness, environmental concern, and customer innovativeness*	
	Aydogdu and Kaya (2020)	Turkey	382	Survey	Hormone-free, odor-taste and flavor, and color-appearance-packaging* Education level, followed by income, occupation, gender, marital status, age, settlement location and number of household members*	
Europe	Vapa-Tankosić et al. (2020)	Serbia	788	Survey	Monthly household income, food safety, support for the local community	
	Vapa-Tankosić et al. (2018)	Serbia	398	Survey	Higher disposable household income, older age group, gender type, urban surroundings, larger household and higher educational level	
South America	Carrión Bósquez et al. (2023)	Ecuador	566	Survey	Attitudes, subjective norms, PBC	Price
	Molinillo et al. (2020)	Brazil	267	Survey	Social consciousness, health consciousness	
	Sica and Franco (2024)	Brazil	143	Survey	Support for the local economy	Higher prices, limited product availability
	Deliberador et al. (2024)	Brazil	240	Survey	Environmental concerns, health consciousness	Price consciousness

(Continued)

TABLE 1 (Continued)

Region	Source	Country	Sample size	Methods	Motives* (In descending order, if suggested)	Barriers
Northern Africa	Daddiouaissa et al. (2022)	Algeria	429	Survey	Health consciousness, subjective norms, taste, perception of availability	
	Zayed et al. (2022)	Egypt	363	Survey	Consumers' attitudes and environmental concerns.	
	Farrag (2022)	Egypt	186	Survey	Lifestyle, values, age	
	Ghali (2020)	Tunisia	467	Survey	Utilitarian (e.g., nutritional content, ecological welfare and price attributes), and hedonic values	
Eastern Africa	Ghali (2019)	Tunisia	480	Survey	Health consciousness, and knowledge of organic food	
	Pacho (2020)	Tanzania	730	Survey	Subjective norms and attitudes	
	Wang et al. (2019)	Tanzania	331	Survey	Subjective norms, personal attitudes, and health consciousness	
	Wang et al. (2019)	Kenya	350	Survey	Subjective norms, personal attitudes, and health consciousness	
Southern Africa	Wekeza and Sibanda (2019)	South Africa	150	Survey	Ethnicity (not of African descent), monthly household income	Price, inadequate availability, perceived taste and quality
	Wekeza and Sibanda (2019)	South Africa	150	Survey	Ethnicity, household size, employment status, household income and perceptions that organically grown products have a better smell and freshness	Age, education, and perceptions that organically grown products have a good taste and quality and limited availability

*Hierarchal value maps, †Structural equation modeling, PBC, perceived behavioral control; LOHAS, Lifestyles of Health and Sustainability; *In descending order if suggested.

premium price, while promoting environmental health, rural development, and animal welfare (Council Regulation (EC), 2007).

4 Theoretical framework: the theory of planned behavior

Research on consumer demand for organic products has leveraged various theoretical frameworks to uncover the motivations behind eco-friendly product purchases (Zepeda and Deal, 2009; Zanolli and Naspetti, 2002; Kollmuss and Agyeman, 2002; Fishbein and Ajzen, 1981; Ajzen, 1991; Kushwah et al., 2019). Applying these theories in multiple studies underscores the complex interplay of knowledge, attitudes, social influences, and personal choice in shaping consumer behavior toward organic foods. Among these, the Alphabet Theory (Zepeda and Deal, 2009), Mean-End Chain Approach (Zanolli and Naspetti, 2002), Knowledge-Attitude-Behavior Theory (Kollmuss and Agyeman, 2002), Theory of Reasoned Action (Fishbein and Ajzen, 1981), and Theory of Planned Behavior (Ajzen, 1991) stand out for their contributions to understanding organic food purchase behaviors. The Alphabet Theory, proposed by Zepeda and Deal in 2009, integrates elements from the Attitude-Behavior-Context theory and the Value-Belief-Norm model, alongside knowledge and habit, to elucidate organic food buying patterns (Zepeda and Deal, 2009). Similarly, the Mean-End Chain Approach, used by Zanolli and Naspetti, links consumers' understanding of product attributes to their needs, offering insights into the reasons behind organic food purchases (Zanolli and Naspetti, 2002). The Knowledge-Attitude-Behavior Theory posits that environmental knowledge is the basis for developing pro-environmental attitudes that drive eco-friendly behaviors (Kollmuss and Agyeman, 2002). In addition, Paul and Rana introduced a framework emphasizing the importance of health benefits, freshness, availability, and ecological awareness in purchasing organic food (Paul and Rana, 2012). Sierra and colleagues designed a sequential model focusing on nutrition information, brand tribalism, self-esteem, and the perception of shopping smart for healthy foods, aiming to explain differences in purchasing processed versus organic foods (Sierra et al., 2015; Sierra et al., 2015). Among these frameworks, the Theory of Planned Behavior has been widely acknowledged for its effectiveness in predicting human behavior, including organic food choices (Aertsens et al., 2009; Carrión Bósquez et al., 2023; Pacho, 2020; Saleki et al., 2019; Zhu, 2018). This theory, an evolution of the Theory of Reasoned Action (Fishbein and Ajzen, 1981), incorporates three critical determinants of behavioral intention: attitudes toward the behavior, subjective norms, and perceived behavioral control (PBC) (Ajzen, 1991). It suggests that the stronger an individual's intention toward a behavior, such as purchasing organic food, the more likely they are to engage in that behavior (von Meyer-Höfer et al., 2015).

4.1 Attitudes toward organic foods

Attitudes toward organic foods play a pivotal role in shaping consumer behavior, acting as a chief determinant of the intention to purchase these products. According to theories like the Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA), attitudes are a primary predictor of consumer choices across different

TABLE 2 Summary of studies done in developed countries by region.

Region	Source	Country	Sample size	Methods	Motives* (In descending order if suggested)	Barriers
Western Asia	Al-Harbi and Badawi (2022)	Saudi Arabia	266	Survey	Consumers' purchasing behavior of organic foods is associated positively by their intention to purchase these products	
	Naim (2022)	Saudi Arabia, UAE, Oman.	200	Survey	Personal attitude, and subjective norms.	
	Alshammari (2020)	Saudi Arabia	147	Survey	Food quality	Skepticism
	Basha et al. (2021)	UAE	423	Survey	Health and lifestyle, environmental concerns, safety and trust, convenience and price, subjective norms and attitude	
Western Europe	Gassler et al. (2019)	Germany		Survey	(Quality or organic label), taste	
	Janssen (2018)	Germany	9,470	Household panel data	Naturalness and healthiness, environmental protection, local and domestic food' and the desire for 'high quality food and enjoyment of eating*	Price consciousness, and convenience orientation
	Winterstein et al. (2024)	Germany	31	In-depth interviews	Quality of personal life, personal wellbeing, health of environment, social responsibility	
	Hansmann et al. (2020)	Switzerland	620	Survey		Lacking financial means, lacking information and knowledge
Eastern Europe	Wojciechowska-Solis et al. (2022)	Poland	862	Survey	Health concerns, product quality, and environmental concerns*	
	Bryła (2018)	Poland	1,000	Survey	Ecological benefits (eco-friendliness), quality assurance, health, taste and safety.	Low availability, high prices, limited consumer knowledge and skepticism toward the systems of certification and labeling
	Bhutto and Rütelionė (2024)	Lithuania	1,000	Survey	Eco-literacy	Usage barrier, risk barrier, tradition barrier, image barriers
Northern Europe	Ditlevsen et al. (2019)	Denmark	39	Six focus groups	Health related concerns, concerns toward environment, animal welfare, and taste*	
	Hansen et al. (2018)	Denmark	1,176	Survey	Health consciousness (personal health) and environmental consciousness*	
	Wojciechowska-Solis et al. (2022)	United Kingdom	161	Survey	Health concerns, product quality, and environmental concerns*	
	Hashem et al. (2018)	United Kingdom	416	Interviews & survey	Age, anti-globalization, environmental, health benefits (product), food quality and convenience	
	Puska et al. (2018)	Finland	n = 80 n = 88 n = 257	Three experiments	Status motives and reputational concern	

(Continued)

TABLE 2 (Continued)

Region	Source	Country	Sample size	Methods	Motives* (In descending order if suggested)	Barriers
Southern Europe	Sica and Franco (2024)	Europe	76	Survey	Animal welfare and environmental concerns.	
	Ham et al. (2018)	Croatia	411	Survey	Uniqueness-seeking lifestyle Positive attitudes, subjective norms and perceived behavioral control, and behavioral beliefs*	
	Azzurra et al. (2019)	Italy	395	Survey	Sustainability concern, food scares and concerns over food safety, women and young people	
	Orlando (2018)	Italy	33	Observation and interviews	Food quality and mitigation of local pollution risk	
	Molinillo et al. (2020)	Spain	263	Survey	Social consciousness, and health consciousness	
	Torres-Ruiz et al. (2018a)	Spain	800	Interview		Low level of confidence in certification, no perceive difference between conventional and organic, and perceived cost (time, effort and money)
	Torres-Ruiz et al. (2018b)	Spain	739	Survey		The lower value of “organic” attribute as compared to a conventional food product
	Laos-Espinoza et al. (2024)	Spain	570	Survey	Hedonic attitudes, utilitarian attitudes	
North América	Shin et al. (2019)	USA	473	Survey	Health consciousness (personal), social value, environmental concern	
	Sica and Franco (2024)	USA	73	Survey	Animal welfare and environmental concerns.	

UAE, United Arab Emirates. *In descending order if suggested.

services and products, including organic foods (Symeonaki et al., 2018). This assertion is supported by numerous studies conducted in developing and developed countries, which consistently found a significant positive correlation between positive attitudes toward organic foods and the intention to buy them (Carrión Bósquez et al., 2023; Pacho, 2020; Saleki et al., 2019; Zhu, 2018; Zayed et al., 2022; Srivastava, 2021; Pham et al., 2019; Wang et al., 2019; Asif et al., 2018; Chekima et al., 2019; Chu, 2018; Naim, 2022; Basha et al., 2021; Ham et al., 2018). Research from developing nations, including Pakistan (Asif et al., 2018), Iran (Asif et al., 2018; Bazhan et al., 2024), India (Srivastava, 2021; Rashid and Lone, 2024), China (Chu, 2018; Li and Shan, 2025), Vietnam (Pham et al., 2019), Malaysia (Saleki et al., 2019), Thailand (Cavite, 2025), Turkey (Asif et al., 2018), Ecuador (Carrión Bósquez et al., 2023), Tanzania (Pacho, 2020; Wang et al., 2019), Kenya (Wang et al., 2019), and Egypt (Zayed et al., 2022), highlights that consumers with favorable attitudes toward organic products are likelier to purchase them. These findings align with studies in Malaysia and Ecuador, where product-specific attitudes and environmental concerns were identified as strong motivators for organic food consumption (Carrión Bósquez et al., 2023; Saleki et al., 2019; Chekima et al., 2019). However, the strength of this motive can vary (Asif et al., 2018). For instance, in Turkey, attitudes were found to be a significant but weaker motive and were moderated positively by awareness (Asif et al., 2018). Interestingly, while a study in Kenya ranked personal attitude as the second most influential factor behind purchasing intentions, another in Tanzania found it less important (Wang et al., 2019).

Similar trends have been observed in developed countries, with studies from the Kingdom of Saudi Arabia, UAE, Oman, Croatia, and Spain indicating that attitudes significantly influence organic food purchases (Naim, 2022; Basha et al., 2021; Ham et al., 2018; Laos-Espinoza et al., 2024). These global insights underscore the universality of attitudes as a fundamental driver behind the consumption of organic foods, irrespective of a country's development level. The TPB further elucidates this by positioning attitudes as a central component influencing consumers' intentions to engage in specific behaviors, such as purchasing organic foods (Ajzen, 1991). Therefore, for marketing executives aiming to boost organic food sales, prioritizing enhancing and understanding consumers' attitudes toward these products is essential (Zhu, 2018; Zayed et al., 2022). This strategic focus can potentially lead to increased demand and consumption of organic foods worldwide.

4.2 Subjective norms

Subjective norms, the perceived social pressure to engage or not engage in a specific behavior, significantly influence consumer decisions regarding organic food purchases (Ajzen, 1991). Research spanning developed and developing countries demonstrates the critical role of subjective norms in shaping eco-friendly consumption behaviors (Carrión Bósquez et al., 2023; Pacho, 2020; Wang et al., 2019; Asif et al., 2018; Chu, 2018; Naim, 2022; Basha et al., 2021; Ham et al., 2018; Ricci et al., 2018; Basha and Lal, 2019; Kamboj et al., 2023). In developing countries, a study from Ecuador highlighted that subjective norms positively affect university millennials' intentions to purchase organic products, suggesting that the social influence of peers and normative beliefs can significantly boost the willingness to

buy (WTB) organic (Carrión Bósquez et al., 2023). This finding is consistent with research from Tanzania (Pacho, 2020; Wang et al., 2019), Kenya (Wang et al., 2019), China (Chu, 2018; Li and Shan, 2025), India (Rashid and Lone, 2024; Basha and Lal, 2019), and Iran (Bazhan et al., 2024), where subjective norms were shown to be a key motivator for organic product purchases. An Indian study in 2023 reported that social norms surrounding the consumption of organic foods will positively influence consumers' intentions to purchase these products (Kamboj et al., 2023). Additionally, a study across Iran, Pakistan and Turkey found subjective norms to be a significant predictor of organic food buying intentions, with awareness amplifying the impact of subjective norms (Asif et al., 2018).

Similar patterns were observed in developed nations, including the Kingdom of Saudi Arabia, UAE, Oman, and Croatia, where subjective norms were identified as a pivotal factor in organic food buying behavior (Naim, 2022; Basha et al., 2021; Ham et al., 2018). The influence of social norms is underscored by the role of social media platforms like Instagram, TikTok, Twitter, and Facebook in disseminating information about organic foods. These digital platforms facilitate the spread of positive messages about organic consumption, enhancing the role of subjective norms in driving purchase intentions (McClelland, 1987; Do Paco et al., 2019). The collective evidence underscores the importance of subjective norms across cultures and development levels. Individuals are often motivated to conform to the behaviors of their social group due to the desire for affiliation and identification (McClelland, 1987; Do Paco et al., 2019). The widespread access to social media further amplifies this effect, serving as a critical channel for promoting the benefits of organic foods and, by extension, bolstering the impact of subjective norms on consumer behavior (Zayed et al., 2022).

Surprisingly, recent evidence revealed that subjective norms discouraged Nepali consumers from purchasing organic products (Guragain, 2024). The authors suggested that in certain cultural contexts, strong societal expectations might create resistance among consumers, possibly resulting in skepticism toward organic marketing claims or mistrust in product authenticity or (Guragain, 2024).

4.3 PBC

PBC, as defined by Ajzen (1991), is an individual's assessment of how easy or difficult it is to perform a specific behavior (Ajzen, 1991). This concept reflects the degree to which a person believes that performing (or not performing) an action is within their control, based on personal beliefs about the presence of facilitating or impeding factors (Ajzen, 2002). Within the framework of the TPB, several studies have explored how PBC influences the behavior of purchasing organic food through its impact on behavioral intention.

Existing evidence from several developing countries confirms the significant role of PBC in shaping consumer intentions to purchase organic foods. Notably, research in Ecuador by Carrión Bósquez et al. found that their PBC positively influenced university millennials' intentions to buy organic food (Carrión Bósquez et al., 2023). This finding is supported by a recent study among Thai millennial consumers which identified PBC as a direct predictor of their organic food purchase intention (Cavite, 2025). Another study in Malaysia reported findings that PBC plays a crucial role in encouraging or deterring organic food purchases (Saleki et al., 2019). In Turkey, PBC

positively impacted the intention to purchase organic food (Asif et al., 2018). Furthermore, a very recent study in China demonstrated that higher levels of PBC are associated with increased intentions to purchase green-packaged organic products (Li and Shan, 2025). However, contrasting findings were observed in other developing countries such as Iran and Pakistan, indicating a variance in how perceived control affects consumer behavior across different socio-economic backgrounds (Asif et al., 2018).

In the framework of developed countries, a research by Ham et al. in Croatia supports the notion that PBC directly influences the decision to purchase organic food (Ham et al., 2018). The upcoming section will delve into the factors that may impede behavioral intentions toward consuming organic food, further exploring the dynamics of PBC in the context of organic food consumption.

5 Factors influencing the consumption of organic foods

5.1 Health consciousness and lifestyle

Health consciousness reflects an individual's propensity to engage in behaviors that promote wellbeing (Moorman and Matulich, 1993). There's a prevalent belief that organic foods, known for their natural production methods and absence of harmful substances like preservatives, pesticides, chemical residues, artificial additives, fertilizers, and genetically modified organisms, offer superior health and nutritional benefits over conventional foods (Zepeda and Deal, 2009). This belief motivates health-conscious individuals to adopt a lifestyle prioritizing wellbeing, leading them to choose organic products to enhance or maintain their health (Kraft and Goodell, 1993; Plank and Gould, 1990; Mie et al., 2017). Consequently, health consciousness has emerged as a leading factor driving the preference for organic foods, both in developing nations such as Algeria (Daddiouaissa et al., 2022), Brazil (Molinillo et al., 2020; Deliberador et al., 2024), Nepal (Guragain, 2024; Shrestha and Baral, 2019), India (Srivastava, 2021; Rashid and Lone, 2024; Basha and Lal, 2019; Kamboj et al., 2023; Raj et al., 2024), Tunisia (Ghali, 2019), Lebanon (Tleis et al., 2019), Kenya and Tanzania (Wang et al., 2019), Iran (Asif et al., 2018; Bazhan et al., 2024), Pakistan (Asif et al., 2018; Iqbal et al., 2021), China (Chu, 2018; Li and Shan, 2025), Vietnam (Pham et al., 2019), Indonesia (Septiani et al., 2024; Putri and Yusup, 2024), Bangladesh (Chowdhury et al., 2024), and Egypt (Farrag, 2022), and in developed countries including Poland (Bryła, 2018; Wojciechowska-Solis et al., 2022), United Kingdom (Wojciechowska-Solis et al., 2022; Hashem et al., 2018), UAE (Basha et al., 2021), Spain (Molinillo et al., 2020), Denmark (Ditlevsen et al., 2019; Hansen et al., 2018), USA (Shin et al., 2019), Germany (Janssen, 2018), Turkey (Asif et al., 2018; Konuk, 2018).

Current evidence underscores this trend, with a study by Daddiouaissa and colleagues highlighting health concerns as the primary reason Algerian consumers choose organic foods (Daddiouaissa et al., 2022). Similarly, Ghali discovered that health consciousness is a potent motivator for purchasing organic foods in Tunisia, a relationship that becomes even stronger with increased consumer awareness (Ghali, 2019). This finding suggests that Tunisians consider their health knowledge when buying organic, underscoring the global importance of health consciousness as a

critical determinant in the organic food markets. Farrag's 2022 study also identified lifestyle choices such as being a "healthy food eater," living a "healthy way of life," and being "ecologically conscious" as major influencers on the organic food purchase intentions of Egyptian consumers under 25 years (Farrag, 2022). This suggests a link between healthy eating habits and a heightened engagement with environmental concerns (Pollard et al., 1998; Appleton et al., 2017).

A similar pattern was detected among Brazilian consumers, where health consciousness significantly influences the intention to purchase organic foods (Deliberador et al., 2024). Further research in Brazil revealed that millennial health consciousness has a direct and positive impact on their willingness to pay (WTP) a premium for organic foods and how frequently they purchase these products (Molinillo et al., 2020). This observation aligns with findings from Nepal, indicating that health consciousness plays a crucial role in determining consumers' WTP for organic foods (Shrestha and Baral, 2019). The underlying principle is that individuals prioritizing their health and quality of life are more inclined to choose organic products. Furthermore, those with a heightened awareness of health issues are more inclined to invest in organic foods, attributing their preference to the belief that organic options are purer and of superior nutritional quality than their conventional counterparts (Lee et al., 2013; McFadden and Huffman, 2017). Another study in Nepal found that health concerns motivate consumers' purchase intentions toward organic foods (Guragain, 2024).

In Lebanon, a study revealed an interesting dynamic: regular consumers of organic products are primarily motivated by the health of their family or children, whereas occasional buyers prioritize their health (Tleis et al., 2019). This aligns with previous findings that families with children are more likely to opt for organic options (Hughner et al., 2007; Aertsens et al., 2009). Furthermore, research conducted by Wang and his team highlighted that in Kenya, health consciousness is the top factor driving the purchase of organic foods, whereas it ranks third in Tanzania (Wang et al., 2019). They also discovered that having knowledge about organic foods significantly enhances the positive relationship between health consciousness and the intention to buy organic foods. This knowledge fosters a favorable attitude toward organic products, while a lack of information can deter organic food purchasing decisions (Padel and Foster, 2005). Consequently, access to information about the health benefits of organic foods catalyzes consumers to adopt healthier eating habits.

Asif et al. identified health consciousness as a significant predictor of consumer behavior toward organic foods in Iran, Pakistan and Turkey, noting that increased consumer awareness enhances the likelihood of purchasing organic foods (Asif et al., 2018). This suggests a direct correlation between the level of awareness about organic foods and the WTB them. Research in Pakistan further established a positive link between health consciousness and the intention to purchase organic foods, revealing that consumer involvement also plays a crucial role in this dynamic. It has been observed that consumers who are more engaged with a product are likelier to make purchasing decisions in favor of it (Bravo et al., 2013). Therefore, individuals with a strong awareness of health benefits are more inclined to seek out and buy organic and healthy food options (Iqbal et al., 2021). Another study from Iran found that health consciousness has a direct and indirect effects on organic food purchase intentions, emerging as the strongest predictor among other predictors (Bazhan et al., 2024). In the Turkish context, health

consciousness also influenced pregnant women's intentions to buy organic foods, indicating a heightened concern for personal and infant health, propelling them toward healthier food choices (Konuk, 2018). This is supported by findings that becoming a parent often marks a significant shift toward organic food consumption, reflecting broader concerns for health and wellbeing in food purchasing decisions (Finch, 2006; Cairns et al., 2013; Barrett et al., 2014; Hjelmar, 2011).

Additionally, Iqbal et al. discovered that environmental motivations amplify the connection between health consciousness and the intention to purchase organic foods (Iqbal et al., 2021). This aligns with findings from other studies, indicating that consumers with a keen interest in environmental or ecological health are more predisposed to choose organic products (Zagata, 2012; Zagata and Lostak, 2012). The findings underscore the various motivations behind organic food purchases, combining health, environmental concerns, and consumer engagement.

Research in Vietnam highlighted that health consciousness significantly influences young consumers' attitudes, highlighting their awareness of healthy eating habits often acquired from family and peers (Pham et al., 2019). This awareness drives a surge in demand for healthier options like organic food (The Hartman Group, 2015; Euromonitor International, 2016). In parallel, a study by Putri and Yusup (2024) observed that Indonesian individuals with a high LOHAS Consumption Tendency (LCT) exhibit strong health and wellness awareness, making them more likely to purchase organic products perceived to promote overall wellbeing (Putri and Yusup, 2024).

Srivastava's research demonstrated that health concerns significantly affect attitudes toward and the intention to purchase organic foods, indicating that in India, more health-conscious consumers are inclined toward buying organic foods for their long-term health advantages (Srivastava, 2021). Supporting this, a recent study from India confirmed that health consciousness significantly affects consumers' purchase intention (Raj et al., 2024). Another recent study from India reported that functional value significantly influences consumers' purchase intentions (Kamboj et al., 2023). Earlier studies on organic food items and their functional value have highlighted the biological characteristics of organic foods as crucial indicators of their functional value (Tandon et al., 2021). Consumers prioritize quality because it encompasses various attributes of organic products that are believed to protect their health, such as their natural composition, absence of chemicals and pesticides, and superior health benefits compared to conventional foods. Conversely, an Indian study revealed a negative correlation between health and lifestyle and the intention to buy organic foods, suggesting that Indian consumers may not view organic foods as essential to a healthy lifestyle (Basha and Lal, 2019).

In Poland, an analysis involving 1,000 consumers found that healthiness ranks as a primary motivation for purchasing organic foods online, indicating the influence of a health-conscious lifestyle on consumer choices (Bryła, 2018; Goetzke et al., 2014). Furthermore, research by Wojciechowska-Solis et al. during the COVID-19 pandemic found health concerns, both personal and for loved ones, along with a desire for higher quality food, to be a driving force for young consumers in Poland and the United Kingdom opting for organic foods (Wojciechowska-Solis et al., 2022). The COVID-19 pandemic notably heightened

consumer health awareness, increasing interest in products that support wellbeing (Kanberger et al., 2025).

Research in the UAE has shown that health and lifestyle choices positively influence purchasing organic food (Basha et al., 2021). Similarly, a Spanish study demonstrated that millennials' health consciousness significantly increases their WTP a premium for organic foods and enhances their purchase frequency (Molinillo et al., 2020). The underlying principle is that individuals prioritizing their health and quality of life are more inclined to opt for organic products, often willing to invest more in these perceived healthier and more nutritious alternatives to conventional foods (Lee et al., 2013; McFadden and Huffman, 2017; Magnusson et al., 2003). Shin et al. reported that health consciousness raises the WTP for organic options and the likelihood of visiting establishments that offer organic foods, with the latter influence being stronger (Shin et al., 2019). This suggests that health-conscious consumers are not only prepared to spend more on organic products but are also more inclined to frequent restaurants that align with their health values. This finding is consistent with observations that health-conscious millennials prefer dining at eco-friendly restaurants, indicating a broader trend toward healthier eating habits and support for venues that offer healthy options (Jang et al., 2011; Lee et al., 2014). In Germany, it was found that the appeal of healthiness and naturalness significantly drives organic food purchases, underscoring that a preference for healthy and natural food directly translates into higher organic food sales (Janssen, 2018). This insight suggests that incorporating environmental benefits, such as low carbon footprints or eco-friendly packaging, could motivate consumers to choose organic.

5.2 Environmental concern

Dunlap and Jones characterized environmental concern as the awareness of the need to address environmental degradation and a willingness to participate in environmental conservation efforts (Dunlap and Jones, 2002). This growing global awareness about the impact of personal consumption patterns on the environment has led many to seek ways to reduce their ecological footprint (Moser, 2016). Hartmann and Apaolaza-Ibáñez found that this concern significantly motivates the purchase of green products, including organic foods, indicating that individuals with more significant environmental concerns are more likely to buy organic than conventional foods (Hartmann and Apaolaza-Ibáñez, 2012; Yadav and Pathak, 2016). Research across various developing nations has consistently shown that environmental concern is a key factor influencing the decision to purchase organic products (Saleki et al., 2019; Zhu, 2018; Zayed et al., 2022; Pham et al., 2019; Asif et al., 2018; Chu, 2018; Bazhan et al., 2024; Rashid and Lone, 2024; Li and Shan, 2025; Basha and Lal, 2019; Guragain, 2024; Daddiouaissa et al., 2022; Deliberador et al., 2024; Raj et al., 2024; Tleis et al., 2019; Putri and Yusup, 2024; Chowdhury et al., 2024; Wang et al., 2020). This sentiment is echoed in developed countries, where studies have identified environmental concern as a central element driving the choice to buy organic in nations like Poland (Wojciechowska-Solis et al., 2022), United Kingdom (Wojciechowska-Solis et al., 2022; Hashem et al., 2018), UAE (Basha et al., 2021), Italy (Azzurra et al., 2019; Orlando, 2018), Denmark (Ditlevsen et al., 2019; Hansen et al., 2018), USA (Shin et al., 2019),

Germany (Janssen, 2018; Winterstein et al., 2024), and Turkey (Konuk, 2018).

In China, studies have demonstrated that environmental awareness positively affects consumer attitudes toward organic foods and their intention to purchase them (Chu, 2018). This aligns with findings that ecological motivations among Chinese students are significant predictors of the intention to buy organic products (Zhu, 2018). Another Chinese study revealed that consumers conscious of environmental sustainability are more likely to purchase organic products. These consumers believe that organic food has a lower environmental impact than conventional food, reinforcing their preference for organic options (Wang et al., 2020).

These observations suggest that an increased awareness of environmental issues leads to greater knowledge of organic food benefits, fostering a more positive attitude toward these products. Furthermore, Asif et al. discovered that in Iran, environmental concern is a primary factor motivating the purchase of organic products (Asif et al., 2018). Their research also shows that heightened awareness amplifies the impact of environmental concern on the intention to purchase, highlighting the critical role of environmental consciousness in shaping consumer preferences for organic foods. Two recent studies from south Asian countries, one conducted in Iran and the other in Nepal, also validated the positive association between environmental concern and organic purchase intention (Bazhan et al., 2024; Guragain, 2024).

A study from India demonstrated that environmental concern significantly enhances the intention to purchase organic food (Basha and Lal, 2019). Individuals with a heightened environmental protection awareness are more likely to choose eco-friendly products driven by their commitment to reducing their environmental impact. Another Indian study further discovered a relationship between these two variables during COVID-19 pandemic (Raj et al., 2024).

Similarly, an empirical study conducted in Malaysia found that individuals concerned about environmental issues exhibited a stronger inclination toward purchasing organic foods (Saleki et al., 2019). Further research from Indonesia reported that consumers exhibiting high perceived consumer effectiveness (PCE) believe their choices can drive a change and view buying sustainable, eco-friendly, or organic products as a means to contribute to broader societal and environmental goals (Putri and Yusup, 2024).

Comparable findings were reported in Brazil, a developing country in south America, where a significant link were found between environmental concern and the intention to buy organic foods (Deliberador et al., 2024). These findings align with former studies conducted in developing Northern African countries (Zayed et al., 2022; Daddiouaissa et al., 2022). For example; a research from Egypt indicated that environmental concerns positively influenced consumers' WTB organic products (Zayed et al., 2022). In the Egyptian study, all participants were educated, suggesting a higher level of awareness about the detrimental effects of conventional food production on the environment and the importance of adopting sustainable practices. A similar trend was observed in Algeria, where Daddiouaissa et al. reported that 13% of Algerian consumers choose organic food because these products are perceived as more environmentally friendly (Daddiouaissa et al., 2022).

In Turkey, environmental concern was the primary factor influencing pregnant women's purchase intentions and WTP a premium for organic foods (Konuk, 2018). This suggests that pregnant

women are particularly mindful of the environment, viewing it as crucial to their infants' futures, and therefore are more inclined to purchase green products (Abi Ghannam and Atkinson, 2016). Contrary to these findings, a study by Pham et al. observed that among young Vietnamese consumers, environmental concerns played a minimal role in shaping their attitudes toward organic food (Pham et al., 2019). This suggests that Vietnamese consumers may not fully grasp the environmental benefits of sustainable consumption, highlighting a potential area for increased education and awareness (De Koning et al., 2015).

Similar trends was also observed in developed countries. Wojciechowska-Solis et al.'s found that environmental concern, or "care for the natural environment," was a more significant driver for purchasing food products among English consumers than Polish consumers (Wojciechowska-Solis et al., 2022). This study was conducted during the COVID-19 pandemic, which heightened consumers' awareness of environmental degradation. These findings align with a recent study revealed that pandemic increased interest among Chilean students in selecting meals with lower environmental impact (Kanberger et al., 2025).

Another English study observed that environmental concerns significantly influence consumer behavior, increasing the likelihood of purchasing local organic food through box schemes by 1.5 times (Hashem et al., 2018). This trend is primarily driven by the belief that such schemes help reduce the environmental impact of food miles by minimizing pollution and energy consumption associated with global food transportation (Seyfang, 2006). Box schemes offer a way for consumers to support local agriculture while contributing to environmental sustainability. Similarly, a study by Basha et al. examined consumer behavior in the United Arab Emirates (UAE) and found that environmental concern is a key factor influencing preferences for organic food (Basha et al., 2021). The UAE is emerging as a leader in environmental sustainability, particularly by investing in alternative energy sources over fossil fuels. This national commitment to sustainability is reflected in the growing consumer demand for organic products, which aligns with the broader societal shift toward more eco-friendly practices (Kalehsar, 2019). In Italy, an empirical study revealed that individuals deeply committed to environmental concerns and sustainable lifestyles are more likely to consume organic foods (Azzurra et al., 2019). These findings are consistent with earlier research, which demonstrated that the greater the concern for environmental issues, the stronger the propensity for individuals to purchase organically produced foods (Rana and Paul, 2017). This suggests a clear link between environmental awareness and organic food consumption, reinforcing that sustainability-driven lifestyles naturally lead to preferences for organic products.

The study by Shin et al. highlighted that environmental concern has the most significant impact on consumers' WTP for organic products, even though it has a lesser effect on their intention to visit organic restaurants than other factors such as health consciousness and social value (Shin et al., 2019). This supports the findings of Hu et al., indicating that individuals who prioritize environmental issues are more likely to visit organic establishments and are willing to pay a premium for these products (Hu et al., 2010). In Germany, environmental protection was identified as the second most influential factor driving organic food purchases (Janssen, 2018). The study suggests that enhancing the environmental benefits of organic products, such as using low carbon footprint methods or eco-friendly

packaging, could be an effective strategy to motivate regular organic food consumers further.

5.3 Food safety and trust concerns

Michaelidou and Hassan identified food safety as a significant concern for consumers, particularly regarding production methods, farming practices, and chemical residues in food, such as pesticides, hormones, artificial preservatives, and fertilizers (Michaelidou and Hassan, 2008). Consumers were also concerned about food-related diseases like mad cow disease, bird flu, and foot-and-mouth disease. Generally, consumers prioritizing food safety tend to seek natural, safe, and pure products (Teng and Lu, 2016). Organic foods containing only natural ingredients and avoiding synthetic chemicals are typically considered safe products (Truong et al., 2012). Consequently, concerns about food safety positively influence consumer attitudes toward organic products (Çabuk et al., 2014). Numerous studies report food safety as a key driver for purchasing organic produce, both in developing countries such as Pakistan (Iqbal et al., 2021), Thailand (Cavite, 2025), Serbia (Vapa-Tankosić et al., 2020), and Vietnam (Pham et al., 2019) and developed countries such as UAE (Basha et al., 2021), Turkey (Aydogdu and Kaya, 2020), Italy (Azzurra et al., 2019), and Poland (Bryła, 2018).

Results from Pakistan found a direct association between consumers' concerns about food safety and their purchasing behavior regarding organic foods. Furthermore, the level of consumer involvement was shown to mediate the relationship between food safety concerns and the intention to buy organic products. This suggests that when consumers are highly concerned about food safety, they are more likely to purchase safe products like organic foods, strengthening their intention to buy organic (Iqbal et al., 2021). Additionally, Iqbal et al. found that environmental concerns amplify both the direct and indirect relationships between food safety concerns and buying behavior, particularly among consumers increasingly concerned about the environment (Iqbal et al., 2021). In Serbia, consumers who are highly concerned about food safety are willing to pay a premium price for organic honey, a product that is perceived as natural and free from synthetic additives (Vapa-Tankosić et al., 2020; Zamudio et al., 2010). This WTP a premium reflects the high value placed on food safety by these consumers. In Turkey, a study found that the primary motivator behind organic food consumption is the absence of hormones in the products, with 93.7% of respondents citing this as their main reason for choosing organic foods (Aydogdu and Kaya, 2020). Food safety concerns also play a crucial role in shaping positive attitudes among young consumers toward organic food in Vietnam (Pham et al., 2019). This indicates that young buyers are aware of the adverse health effects of chemical residues in conventional foods, leading them to prefer organic options (Pham et al., 2019; Hoi et al., 2016). In India, 'green trust' was found to influence consumers' purchase intentions positively toward organic food (Kamboj et al., 2023). 'Green trust' is generally defined as the willingness to rely on a product or service based on the belief or expectation that it is trustworthy, beneficial, and effective in terms of its environmental performance and is a crucial component of environmental marketing (Chen and Chai, 2010; Schlosser et al., 2006). In parallel, a recent study from Thailand found that organic trust is a fundamental

predictor of organic food purchase intention among Millennial consumers (Cavite, 2025).

Similarly, in the UAE, Basha et al. identified safety and trust as key factors driving consumer intentions to buy organic food (Basha et al., 2021). This finding aligns with previous studies that have observed a growing shift from conventional to organic food in response to concerns about food safety and trust (Sakthirama and Venkatram, 2013; Tleis et al., 2017; Nagy-Pércsi and Fogarassy, 2019). A study by Azzurra et al. in Italy further supports the importance of food safety, finding that food scares and concerns over food safety are strong predictors of organic consumption among Italian consumers (Azzurra et al., 2019). This is consistent with other studies showing that consumers are willing to pay a premium for organic foods, perceived as risk-free and safer alternatives (Rana and Paul, 2017; Zepeda and Li, 2007). Data from 1,000 Polish consumers indicates that food safety is among the key motivations for purchasing organic food online (Bryła, 2018). This highlights the growing importance of food safety in consumer decision-making processes for organic food purchases.

5.4 Food quality

Health concerns are a significant driver of consumer interest in organically produced products, but consumers also prioritize higher food quality that is safe for human health and the environment (Suci et al., 2019). Previous reviews have identified product quality as a major factor behind the growing consumption of organic foods (Perera et al., 2018). Consumers who perceive organic food as being of higher quality are more likely to purchase it (Kahl et al., 2012).

Numerous studies have established a relationship between food quality and attitudes toward organic food purchasing behavior in various developed countries, including Poland (Bryła, 2018; Wojciechowska-Solis et al., 2022), the United Kingdom (Wojciechowska-Solis et al., 2022; Hashem et al., 2018), Saudi Arabia (Alshammari, 2020), Germany (Janssen, 2018; Gassler et al., 2019), and Italy (Orlando, 2018). In Saudi Arabia, food quality positively influences consumer attitudes, affecting their intention to purchase organic products (Alshammari, 2020). This suggests that Saudi consumers perceive organic foods as being of higher quality than conventional foods, making them more inclined to buy organic options. German study indicated that regular organic buyers place a high value on food quality, which they view as a form of self-indulgence or a treat (Janssen, 2018). This finding suggests that organic food suppliers should emphasize the quality of their products when targeting regular consumers. Gassler found that the perceived quality of wine is an important mediator through which organic labeling influences WTP (Gassler et al., 2019). Specifically, wines marketed as organic were perceived to be of higher quality, leading participants to pay an additional €1.47 for red wine and €2 for white wine. This demonstrates that organic labeling not only conveys the ecological benefits of the product but also enhances perceptions of taste and quality (Sörqvist et al., 2015). In the United Kingdom, Hashem's study found that food quality, particularly freshness and taste, motivates consumers to purchase local organic food through box schemes. However, it had the smallest influence on the likelihood of buying a larger share of locally produced organic food, increasing the probability by only 1.2 times (Hashem et al., 2018).

While much of the research on the relationship between product quality and organic food purchasing has been conducted in developed countries, only a few have explored this relationship in developing countries like India and Indonesia. Two studies from India highlighted that product quality significantly influences consumer decisions to buy organic foods (Srivastava, 2021; Basha and Lal, 2019). Their results emphasized that product quality substantially impacts the purchasing decisions of Indian consumers, indicating their strong interest in the quality of organic foods. Moreover, product quality directly and significantly influences attitudes and buying intentions regarding organic foods in India. Similarly, a study from Indonesia observed that higher perceived quality of organic food is linked with stronger intention to purchase (Septiani et al., 2024).

5.5 Sensory appeal

The appearance of food plays a crucial role in determining its perceived quality and consumer acceptance (Sharif et al., 2017). Sensory properties such as color, appearance, smell, and texture influence consumer attitudes toward organic foods (Lee and Yun, 2015). Many organic food consumers believe that organic products are tastier than conventional ones, a perception that often drives their purchasing decisions (Petljak et al., 2017; Stoleru et al., 2019). However, sensory evaluations of organic versus traditional foods have produced mixed results, with some studies failing to confirm the superiority of organic taste (Fillion and Arazi, 2002).

For instance; Daddiouaissa et al. reported that 13% of Algerian participants cited better taste as a primary reason for purchasing organic products (Daddiouaissa et al., 2022). Similarly, a study from Iran also showed that sensory characteristics of organic products (i.e., taste, texture, appearance, and packaging) directly influence consumers' purchase intention (Bazhan et al., 2024). Apart from that, evidence from another developing country in south Asia reported that nearly 24% of participants were willing to pay a premium for organic vegetables due to their perceived better taste (Rani et al., 2018). This study also showed that Pakistani consumers are willing to spend more on other sensory attributes of organic vegetables, such as freshness, shape, and color. These findings suggest that sensory appeal, particularly taste, significantly motivates organic food purchases in some developing countries. However, not all studies support the strong influence of taste on organic food purchasing behavior. For instance, in their study, Pham et al. found that taste had little importance in predicting consumer attitudes toward organically grown food (Pham et al., 2019). This discrepancy may be attributed to the fact that perceptions of organic taste are influenced by various factors, such as preferences for freshness, natural flavor, and aroma, which can vary significantly between countries and cultural contexts (Hemmerling et al., 2016).

In the context of developed countries, taste has also been identified as an essential motive for preferring organic products. For example, a study by Bryła (Bryła, 2018) and Ditlevsen et al. (Ditlevsen et al., 2019) ranked taste as a key factor driving consumer preference for organic foods. Other attributes, such as appearance, color, and shape, of organic foods influence purchase intention. A study on consumer segmentation in Germany found that organic food products' appearance, color, and shape significantly influence purchasing decisions (Schäufele-Elbers and Janssen, 2023). This

analysis was based on data from Germany's GfK household panel, which revealed that certain consumer segments with above-average expenditures for organic food are particularly sensitive to these sensory characteristics. Moreover, the perceived credibility of organic food purchases is significantly influenced by appearance, color, and shape (Nagy et al., 2023). These findings were supported by an earlier quantitative analysis that emphasized appearance, color, and shape were critical constituent elements that can heavily influence the purchase intention of organic food products (Sujaya and Aithal, 2022). The study suggests that these sensory characteristics are ranked high in terms of their impact on consumers' decisions to buy organic foods. Another study from Germany found that perceived better taste is a main driver for WTP for organic wine, especially for less committed organic consumers (Gassler et al., 2019). Overall, the reviewed studies highlight the role of sensory attributes, particularly taste and appearance in shaping consumer behavior toward organic products, although the strength of this influence can vary depending on regional and cultural differences.

5.6 Social consciousness

Social consciousness, as described by Rana and Paul, refers to a societal awareness that influences the willingness to buy products to support and improve the community and local economy (Rana and Paul, 2017). This sense of responsibility toward society motivates consumers to purchase organic foods, driven by a desire to contribute to community development, support local producers, and positively impact family life (Hansen et al., 2018; Cicia et al., 2009). Several studies have highlighted a connection between consumer preferences for local and organic food, suggesting that those prioritizing locally sourced products are also likely to favor organic options (Padel and Foster, 2005; Baker et al., 2004; Hempel and Hamm, 2016). Molinillo et al. found that social consciousness among millennials significantly influences their WTP a premium price for organic foods and their purchase frequency in both Spain and Brazil (Molinillo et al., 2020). Another study from Brazil found that supporting local economy is the main reason for consuming organic foods (Sica and Franco, 2024). Interestingly, social consciousness had a stronger impact on WTP a price premium than on purchase frequency. This suggests consumers more sensitive to community-related issues are more likely to pay higher prices for organic products, reflecting their commitment to supporting socially responsible practices (Laroche et al., 2001). In Germany, regular organic produce buyers strongly preferred local and domestically produced food (Janssen, 2018). This indicates the importance of offering local and domestic options within the organic food market, as it aligns with the values of consumers who prioritize sustainability and community support.

However, the relationship between social consciousness and organic food purchasing is inconsistent across all contexts. Basha and Lal report that in India, there is a significant negative relationship between the desire to support local farmers and organic food purchasing (Basha and Lal, 2019). This finding suggests that Indian consumers may not fully recognize the benefits of purchasing organically produced foods in terms of improving the livelihoods of local farmers. It highlights a potential gap in consumer awareness and the need for better communication about the positive impacts of organic farming on local economies.

5.7 Organic food knowledge

Singh and Verma highlighted the importance of consumer knowledge in making informed purchasing decisions, emphasizing that consumers should effectively be well-informed about their products to meet their needs (Singh and Verma, 2017). Indeed, food knowledge plays a crucial role in shaping consumer behavior (Moorman et al., 2004), with purchasing intentions varying according to the consumer's level of knowledge (Chiou, 1998). For instance, studies from Nepal and Pakistan have confirmed that consumer knowledge of organic food significantly influences their WTP a premium price for organic vegetables (Shrestha and Baral, 2019; Rani et al., 2018). Shrestha and Baral found that Nepali consumers aware of the absence of chemical residues in organically produced foods were 12.32% more likely to pay a premium price for organic products (Shrestha and Baral, 2019). Similarly, a study from Pakistan revealed that consumers aware of the absence of harmful chemicals in organic vegetables are 72% more willing to pay a higher price for these products (Rani et al., 2018). The same study also showed that individuals who recognize the higher nutritional value of organic vegetables are 72% more inclined to pay a premium than those with less awareness. In Tunisia, consumer knowledge about organic food was a key driver in purchasing decisions. The study demonstrated that the more a consumer knows about an organic product, the more conscious they are of its benefits and values, leading to a greater willingness to purchase such products (Ghali, 2019). Furthermore, in the Indian context, a study by Srivastava observed that increased knowledge about organic foods positively affects attitudes and intentions to buy them (Srivastava, 2021). This finding underscores the importance of educating consumers about the benefits of organic products to enhance their purchase intentions.

5.8 Other unique motives

Further examination of selected studies revealed unique motives for organic food consumption that vary depending on the country's development status. Factors such as perceived convenience of purchase (Bazhan et al., 2024), values (Farrag, 2022), moral norms (Saleki et al., 2019), media exposure (Pham et al., 2019), marketing (Chu, 2018; Sobhanifard, 2018), customer innovativeness (Kamboj et al., 2023; Konuk, 2018), COVID-19 (Raj et al., 2024), corporate reputation (Mohd, 2018), and product image (Mohd, 2018) have been identified as key drivers for organic food consumption in developing nations in Asian continent. In contrast, in developed countries, motives such as a uniqueness-seeking lifestyle (Ham et al., 2018), and anti-globalization (Hashem et al., 2018) play a more significant role.

In developing countries, a recent study by Bazhan et al. (2024) demonstrated that the perceived convenience of purchase significantly influences the intention to purchase organic food (Bazhan et al., 2024). This reflects that consumers are more inclined to buy easily product that are easily accessible products and needs minimal effort to locate (Bazhan et al., 2024). In Malaysia, moral norms positively influence the intention to buy green products, including organic foods (Saleki et al., 2019). Manstead pointed out that moral values strongly predict consumers' social behavior (Manstead, 2000). Generally, consumers consider the potential effects of food products on society and the environment when

making purchasing decisions (Saleki et al., 2019). This reflects a broader ethical concern among consumers in developing countries, where moral considerations can significantly drive purchasing behavior.

Interestingly, in Vietnam, young consumers exposed to food-related messages in the media are more likely to develop positive attitudes toward organic foods (Pham et al., 2019). This finding aligns with earlier research (Hjelmar, 2011). The media is crucial in shaping subjective norms and influencing consumers' perceptions of products (McQuail, 2010). In developing countries, where media reach is expanding, this influence can be particularly powerful in promoting organic food consumption. In China, marketing communication is critical in shaping consumers' intentions to purchase organic food (Chu, 2018). This finding is consistent with a study in Iran, where marketing positively influenced organic food consumption (Sobhanifard, 2018). Marketing provides consumers with essential information about organic foods (Leong and Paim, 2015), increasing their knowledge and awareness of the benefits of these products (Pandey and Srivastava, 2016). Therefore, effective marketing strategies are vital in driving consumer intentions to buy organic foods.

Additionally, another Malaysian study revealed that corporate reputation is the most significant predictor of consumers' purchasing behavior for organic vegetables, followed by product image (Mohd, 2018). These findings are consistent with the claims made by Barnett et al. and Walsh et al., who suggested that consumers' behavioral intentions to buy a product are heavily influenced by the green image and corporate reputation promoted by the retailer through green marketing (Walsh et al., 2006; Barnett et al., 2006). In developing countries, where consumer trust in corporate entities may be fragile, a strong corporate reputation can be a decisive factor in purchasing decisions.

Interestingly, one study from India stands out among the developing nations, which outlined consumer innovativeness as one of the motivators for organic food purchases (Kamboj et al., 2023). Every consumer is, in essence, an innovator because throughout our lives, we all adopt products or concepts that we perceive as novel. Innovativeness refers to "the extent to which a person may be the first to accept innovation compared to the other members of the social system to which they belong." In this context, the distinctive qualities of products labeled as "organic food" may attract highly innovative individuals to try these products for the first time (Kamboj et al., 2023). In Turkey, consumer innovativeness is also positively linked to pregnant women's purchase intentions and WTP a premium for organic foods (Konuk, 2018). These findings align with previous research (Bartels and Reinders, 2010; Goldsmith and Newell, 1997). Pregnant women, in particular, may become domain-specific innovative consumers, paying closer attention to new organic products to ensure healthy eating habits during pregnancy (Konuk, 2018).

Recently, it was also found that COVID-19 had a significant positive effect on the purchase intention of organic food products among Indian consumers (Raj et al., 2024). According to Castellini et al. (2021), psychological reactions to the COVID-19 pandemic shifted consumers' attitudes toward sustainability issues. Such diets maintains human health and wellbeing, while preserve environment and animal welfare for present and future generations (Castellini et al., 2021).

Different motives emerge in developed nations in southern and northern parts of Europe continent. For instance, Ham and Pap found

that a uniqueness-seeking lifestyle directly influences consumers' intentions to purchase organic foods in Croatia (Ham et al., 2018). According to uniqueness theory, many modern individuals desire to be perceived as unique or special (Schumpe and Erb, 2015), and they may seek to differentiate themselves from others by purchasing distinctive products, such as organic foods (Goldsmith et al., 2014; Nikolić et al., 2014; Nie and Zepeda, 2011). Another study by Hashem et al. identified anti-globalization sentiment as the strongest motive for English consumers to purchase local organic food through box schemes (Hashem et al., 2018). These schemes offer an alternative shopping strategy that supports small farmers and addresses ethical and environmental issues associated with globalized agro-food systems (Beagan et al., 2010; Clarke et al., 2007). This motive can be a significant driver of organic food purchases in developed countries, where concerns about globalization and its impacts are more pronounced.

6 Factors influencing purchase intentions

Several studies have explored the impact of consumer demographics on organic food consumption, revealing a range of influences based on factors such as age, gender, ethnicity, income, education, employment, household size, and place of residence. The role of age in shaping organic food consumption is well-documented, though findings are inconsistent across different contexts. In developing countries, Farrag found that age positively influences organic food purchase intention; however, his results also indicated that Generation Z (younger than 25 years) does not significantly impact purchase intention for organic food (Farrag, 2022). Contrastingly, a study from Pakistan reported that consumers over 35 are more inclined to pay a higher price for organic vegetables (Rani et al., 2018). Similarly, research from South Africa asserted that the probability of purchasing organic products is lower among consumers aged 21–24 compared to those younger than 20 years (Wekeza and Sibanda, 2019). In developed countries, a study from Italy showed that young people (18–24 years) tend to be high-intensity organic consumers (Azzurra et al., 2019). Likewise, Hashem et al. found that younger age increases the likelihood of purchasing more organic food through box schemes in England (Hashem et al., 2018). However, in Germany, age has a negative effect on the share of the budget allocated to organic products (Janssen, 2018).

Studies from developing nations indicate that both male and female consumers will likely pay a premium price for organic products (Shrestha and Baral, 2019; Vapa-Tankosić et al., 2018). In contrast, research from developed countries, such as Italy, shows that women have a greater tendency to be high-intensity organic consumers (Azzurra et al., 2019). Ethnicity positively influences purchasing intentions toward organic products in developing countries like South Africa. Studies by Wekeza and Sibanda found that consumers of non-African descent are more inclined to buy organic products compared to those of African descent, likely due to higher income levels among non-Africans, which enables them to afford the typically higher prices of organic products (Wekeza and Sibanda, 2019). Developing countries' evidence has established a significant relationship between household income and organic food consumption. For example, Vapa-Tankosić et al. reported that the

frequency of purchasing organic olive oil increases significantly with higher household incomes (Vapa-Tankosić et al., 2020). Similarly, research from South Africa found that monthly household income positively affects consumers' intent to buy organic products (Wekeza and Sibanda, 2019). Additionally, studies from south Asian countries like Nepal, Pakistan, and India have shown that consumers with higher monthly incomes are more inclined to pay a premium for organic vegetables (Shrestha and Baral, 2019; Rani et al., 2018; Vapa-Tankosić et al., 2018).

Education level also influences WTP and intention to buy organic foods. While some studies suggest that more educated consumers are less likely to purchase organic products, possibly due to their critical perspective on the validation and certification of organic products (Wekeza and Sibanda, 2019; Hamzaoui Essoussi and Zahaf, 2009), other reports indicate the opposite. For instance, studies from south Asian countries such as Nepal, Pakistan, and India reveal that consumers with higher education levels are more likely to pay a premium price for organic foods (Shrestha and Baral, 2019; Rani et al., 2018; Vapa-Tankosić et al., 2018). Another study from Iran found that individuals with higher educational levels are more likely to buy organic products (Bazhan et al., 2024). In Turkey, highly educated individuals have been found to have positive attitudes toward organic food consumption (Aydogdu and Kaya, 2020). This trend was also repeated in a developed country located in western Europe. For instance, in Germany, education positively influences the share of the budget allocated to organic foods (Janssen, 2018). Muhammad et al. further noted that as consumers become more educated, their awareness increases, leading to more selective standards and habits (Muhammad et al., 2016).

Employment status also influences organic food consumption, particularly in developing countries. For example, a study from Nepal found that the likelihood of paying a premium for organic products is higher among those employed outside the agricultural sector (Shrestha and Baral, 2019). Similarly, research from Pakistan indicated that consumers with any form of employment are more inclined to pay a higher price for organic vegetables (Rani et al., 2018). In South Africa, full-time employees and individuals with smaller family sizes (five members or less) are more likely to purchase organically grown products (Wekeza and Sibanda, 2019). Moreover, household size directly affects the WTP and the intent to purchase organic foods in developing countries. In Pakistan, consumers with smaller families (up to four individuals) are more likely to pay a premium of up to 20% for organic products, likely because organic products are expensive, and purchasing them is more feasible for smaller households (Vapa-Tankosić et al., 2018). However, in South Africa, consumers with larger families (6–10 members) are likelier to buy organically grown products than those with smaller family sizes (Wekeza and Sibanda, 2019).

The place of residence also impacts organic food purchasing behavior. Research from Serbia found that consumers living in towns are more likely to pay up to 20% premium for organic products (Vapa-Tankosić et al., 2018). Generally, higher levels of urbanization are associated with increased demand for organic foods (Wier et al., 2008). Social value is an often-overlooked motive in both developed and developing countries, which refers to the idea that consumers may choose green products for reasons beyond their functional properties, such as enhancing social approval and social status (Shin et al., 2019; Akbar et al., 2019). Akbar and colleagues concluded that social value

significantly influences the WTB organic products among university students in Pakistan, a developing country from south Asia (Akbar et al., 2019). In this context, Pakistani consumers, especially millennials, are conscious of how others perceive them, including their attitudes and consumption patterns. Similarly, a study from a developed country in north America showed that social value is positively related to WTP and the intention to visit organic food restaurants (Shin et al., 2019).

7 Barriers to organic food consumption

7.1 Price and convenience

Despite consumers' generally positive attitudes toward organic foods, several perceived barriers, including price and convenience, often hinder their purchasing behavior (Hughner et al., 2007; Nguyen et al., 2018). Price barriers refer to consumers' perceptions of the cost of organic food and their ability or willingness to purchase these products despite their premium prices (Tanner and Wölfling, 2003). Additionally, convenience in food handling and purchasing plays a significant role in consumers' choices of organic foods (Bravo et al., 2013), as the unavailability of organic products increases the effort and search costs required to obtain them (Li et al., 2007). Another factor contributing to the convenience barrier is the additional cooking and food preparation skills often needed when dealing with organic foods (Li et al., 2007). This can further discourage consumers who may prefer more convenient, ready-to-eat options. Research shows that consumers in both developing and developed countries are primarily reluctant to purchase organic food due to price barriers (Carrión Bósquez et al., 2023; Pham et al., 2019; Basha et al., 2021; Basha and Lal, 2019; Bryła, 2018; Janssen, 2018; Wekeza and Sibanda, 2019; Nguyen et al., 2019; Chakraborty et al., 2024), with convenience being the second most significant barrier (Pham et al., 2019; Bryła, 2018; Janssen, 2018; Wekeza and Sibanda, 2019; Chakraborty et al., 2024).

Carrión Bósquez et al. found that the high cost of organic products could deter Ecuadorian university millennials from purchasing them (Carrión Bósquez et al., 2023). However, this finding contrasts with the results of Naderi and Van, who revealed that millennials are generally more willing to pay extra for eco-friendly products (Naderi and Van Steenburg, 2018). Similarly, high prices were a significant deterrent to purchasing organic meat among both Vietnamese (Nguyen et al., 2019) and Iranian consumers (Bazhan et al., 2024). These results are consistent with a research from Brazil, where price consciousness was a significant obstacle to the purchase of organic foods (Deliberador et al., 2024).

In India, Basha and Lal found that both convenience and price negatively influenced consumers' purchase intentions (Basha and Lal, 2019). Additionally, two recent study found that lack of availability was a significant deterrent to purchase intention for organic foods among Indian consumers (Kamboj et al., 2023; Raj et al., 2024). These findings are also in parallel with a recent Indian study which emphasized that value barriers strongly influence consumers' intentions to purchase organic foods. Specifically, consumers felt that the organic foods did not justify their over prices compared to conventional alternatives (Chakraborty et al., 2024). A recent study showed that

perceived price and limited availability have also hindered Nepali consumers from purchasing organic products (Guragain, 2024).

Wekeza and Sibanda also reported that purchasing organic foods in Africa could decrease by 14% among consumers who perceive these foods as expensive (Wekeza and Sibanda, 2019). Furthermore, the inadequate availability of organic foods in the market reduced their accessibility, decreasing the likelihood of purchasing organic foods by 41% (Wekeza and Sibanda, 2019). A previous study by the same authors confirmed that consumers who find it challenging to access organic foods are 35% less motivated to increase their intent to purchase these products (Wekeza and Sibanda, 2019). Pham et al. also demonstrated that high prices, insufficient availability of products in stores, and the extra time required to find organic vegetables negatively impact consumers' attitudes and purchasing decisions toward organic food (Pham et al., 2019). These findings suggest that price and ease of access are critical factors in consumers' buying decisions. Conversely, Algerian consumers who perceive organic foods as readily available in the market are likelier to develop favorable attitudes toward these products (Daddiouaissa et al., 2022). Similarly, Chekima et al. found that the perception of product availability positively influences organic food consumption among Malaysians (Chekima et al., 2019).

Evidence from Brazil provides important insights into how price and convenience deter the consumption of organic foods. This country witnessed a rapid and notable surge in the demand for organic food. This increase is primarily driven by a growing number of consumers who are more health-conscious and environmentally aware than in the past, leading to a rise in both domestic consumption and national production (Cicciù and Carmona, 2024). Brazil holds the largest market for organic food in Latin America, with retail sales reaching 1.1 billion Euros in 2021, a 12% increase from 2020 (Cicciù and Carmona, 2024). It is reported that 39% of the Brazilian population consumes some form of organic food, and it is also important to note that Brazil ranks as the 12th largest producer of organic food globally (Sica and Franco, 2024; Watanabe et al., 2020). However, despite its production capabilities, increasing demand and awareness among the population, organic food still holds only about 1% of the domestic market share, compared to over 5% in some European markets (Watanabe et al., 2020). The observed numbers are due to the high export rates limiting domestic supply and the higher prices of these products for Brazilian consumers (Sica and Franco, 2024).

High prices and limited availability were identified as key barriers to the growth of the organic market in Poland (Bryła, 2018). In Germany, price consciousness had a significant negative impact on the budget share allocated for organic food purchases, meaning that individuals who are more focused on finding low-priced foods and special offers are less likely to consume organic products (Janssen, 2018). Additionally, consumers prioritizing convenience foods are less likely to purchase organic products, possibly because these products often require more cooking and food preparation skills (Li et al., 2007). In the United Arab Emirates (UAE), price and convenience also influence consumers' motivations to buy organic food (Basha et al., 2021). On the other hand, convenience can act as a motivating factor in some contexts. For instance, Hashem et al. found that the convenience factor increased the likelihood of purchasing local organic food through English box schemes by 1.3 times among English consumers (Hashem et al., 2018). Home delivery services, which save time and effort and are more easily accessible than in-store

shopping, can encourage consumers to increase their organic food purchases.

7.2 Consumer skepticism

Consumer skepticism refers to the tendency to distrust the information presented on food product labels (Moorman, 1996). Existing literature indicates no clear consensus on the nature of skepticism. While some scholars view skepticism as a stable personality trait (Obermiller and Spangenberg, 1998; Skarmeas and Leonidou, 2013), most researchers consider it to be a temporary consumer state influenced by situational factors, rather than inherent to the consumer's personality (Patel et al., 2017; Vanhamme and Grobben, 2009). Although skeptical consumers vary in their levels of mistrust or disbelief, they may change their opinions when presented with sufficient evidence. Činjurević et al. (2018) introduced the concept of organic food skepticism, defining it as a situational skepticism triggered by marketing claims regarding organic food (Činjurević et al., 2018). They highlight that several scandals have arisen, such as the contamination of organic food with highly carcinogenic dioxins. Additionally, the trade in genetically modified food has faced significant criticism for using hormones and artificial additives in food production. As a result, many consumers have become skeptical of products marketed as organic or natural. Rana and Paul (2017) argue that consumers are increasingly concerned about the health and safety of organic food, perceiving it as potentially compromised due to chemical residues, hormones, and natural toxins (Rana and Paul, 2017). This skepticism can lead to negative attitudes toward these products, directly affecting consumer behavior.

According to Hughner et al., skepticism can be a significant barrier to purchasing organic food (Hughner et al., 2007). Although organic foods are generally regarded as safe foods, it is challenging to verify the quality of these foods at the time of purchase and even after consumption (Xing et al., 2022). Consequently, consumers must rely on the accuracy of the information provided on organic food labels. However, many consumers suspect that greenwashing practices are prevalent in the organic market, leading to what is known as the “organic washing” phenomenon (Cicciù and Carmona, 2024). This refers to a branding strategy to convince consumers of a product's organic qualities, regardless of its actual attributes. As a result, many consumers have become skeptical about the health benefits of organic products and the authenticity of environmental certifications and labeling. This type of skepticism is called organic food skepticism (Činjurević et al., 2018), which diminishes the perceived value of these products and influences the decision-making process when purchasing them (Hughner et al., 2007).

Several studies have shown that consumer skepticism can hinder the consumption of organically grown foods in both developing (Pham et al., 2019) and developed countries (Bryła, 2018; Alshammari, 2020; Torres-Ruiz et al., 2018a). In Saudi Arabia, consumers who lack trust in organic labels are more likely to have negative attitudes toward organically grown foods (Alshammari, 2020). In Poland, skepticism toward certification and labeling systems was identified as a major barrier to developing the organic market (Bryła, 2018). Similarly, Torres-Ruiz et al. found that Spanish consumers who lack confidence in organic certification are less likely to buy organic olive oil (Torres-Ruiz et al., 2018a). This trend is also mirrored in Vietnam, a developing

country in southeast Asia, where poor eco-labels significantly hinder attitudes and purchase intentions toward organic food (Pham et al., 2019). Interestingly, an evidence from India showed that image barrier become a significant factor affecting organic food purchase intention in the post-COVID-19 pandemic, compared to its non-significance during the COVID-19 pandemic (Chakraborty et al., 2024). In other words, skepticism about food labels can influence how consumers evaluate food products, ultimately complicating their purchase decisions. As a result, skeptical consumers are less likely to buy organic products.

7.3 Other perceived barriers

Differences in financial resources significantly impact the purchasing behavior of organic foods (Jager, 2000). It is well-documented that consumers with limited financial means are less likely to buy organic products, often priced higher than conventional alternatives. A study in Switzerland confirmed this, revealing that financial constraints decrease the likelihood of purchasing more expensive items, such as organic fruits and vegetables (Hansmann et al., 2020). This is consistent with the broader understanding that price sensitivity is a significant barrier for consumers when considering organic options.

Interestingly, in South Africa, the perception that organic foods offer better taste and higher quality paradoxically led to a 51% reduction in purchase intentions among consumers (Wekeza and Sibanda, 2019). The study's authors attributed this to the finding that not all organic products deliver superior taste or quality (Wekeza and Sibanda, 2019; Mukul et al., 2013). This challenges the assumption that positive perceptions automatically translate to higher purchase rates, highlighting the complexity of consumer decision-making. It also suggests that expectations about organic foods might need to be lowered, leading to disappointment and reluctance to purchase them. Labeling, packaging, and branding cannot be overstated in influencing consumer perceptions of food quality. Consumers often rely on these external cues to judge the value and quality of organic products. Poor labeling or inadequate branding can significantly deter consumers from buying organic foods, creating uncertainty about the product's authenticity and benefits (Wekeza and Sibanda, 2019). This is particularly important in a market where trust and transparency are critical to consumer confidence.

Insufficient consumer knowledge about organic foods has been identified as a significant barrier to their purchase, in developed countries (Bryła, 2018; Hansmann et al., 2020). Despite the growing popularity of organic products, many consumers remain uncertain about what constitutes organic food and its benefits. This knowledge gap can result in hesitation or reluctance to purchase organic products, as consumers may not fully understand the value proposition or may be skeptical of the claims made by producers. This indicates that awareness and education are crucial in shaping consumer behavior. When consumers are well-informed about organic foods' environmental and health benefits, they are more likely to make purchase decisions that align with these values (Kamboj et al., 2023). On the other hand, a lack of knowledge can lead to confusion, skepticism, and, ultimately, lower purchase intentions. Therefore, efforts to enhance consumer education and improve the transparency and clarity of organic labeling could be key

strategies in increasing the adoption of organic foods across different demographics.

8 Discussion

This review underscores the importance of health and environmental concerns as primary drivers for organic food consumption across both developed and developing countries. These global motivators highlight consumers' increasing preference for organic foods due to perceived benefits such as reduced pesticide residues, improved soil quality, enhanced biodiversity, and lower ecotoxicity impacts. However, the motivations and barriers vary significantly across regions, shaped by distinct cultural, economic, and social factors.

In developing countries, limited availability and high costs remain the major obstacles to organic food consumption. Organic products are often more expensive than conventional alternatives due to higher production costs and limited economies of scale. Consequently, income level becomes a significant determinant, with organic foods primarily accessible to middle- and high-income consumers. Additionally, a lack of awareness and knowledge about organic foods' health and environmental benefits further hinders their widespread adoption in these regions. To address these barriers, strategic decision-making at the policy level is required to enhance the affordability and availability of organic foods, coupled with educational campaigns to raise consumer awareness about their benefits.

However, skepticism toward certification and labeling schemes is a predominant barrier in developed countries. Despite higher levels of awareness about food safety and sustainability, many consumers in these regions lack confidence in the authenticity of organic labels, undermining their purchasing decisions. This highlights the need for governments and regulatory bodies to establish stricter controls, transparent labeling regulations, and certification systems to build consumer trust.

In parallel, communication strategies should also aim to educate skeptical consumers and reassure them about the reliability of certified organic products. Emerging technological solutions such as blockchain can improve label transparency and build trust. For instance, [Duong et al. \(2024\)](#) found that blockchain-based food traceability systems positively influence pro-environmental consumption and trust in organic food products ([Duong et al., 2024](#)). Similarly, Cao and his colleagues suggested a blockchain traceability framework aimed to improve sustainability communication across food supply chains, thereby reducing consumer skepticism and enhancing confidence in organic labeling ([Cao et al., 2023](#)). Additionally, a study found that third-party certification significantly influences consumers' purchase decisions and WTP for organic products, with the credibility and reputation of the certifying organization play a crucial role in shaping consumer trust ([Nie et al., 2022](#)).

Social consciousness is another factor where significant regional differences were identified. Consumers in developed countries showed greater ethical considerations, often viewing organic food consumption as a means to support local farmers and promote community development. This awareness needs to be more pronounced in developing countries, emphasizing the need for initiatives to foster an understanding of the social benefits of organic

consumption, such as its role in supporting local producers and contributing to sustainable development. Moreover, demographic factors further influence organic food consumption patterns. Younger consumers in developed countries are more likely to purchase organic products, driven by greater awareness of environmental sustainability and a desire to make ethical choices. In contrast, older consumers in developing countries often prioritize cost and availability, which limits their consumption of organic foods.

In developing countries, regionally, in south Asia, health consciousness, followed by environmental concerns were the most pronounced factors affecting the consumption of organic foods, whereas lack of availability and lack of knowledge were significant barriers for consuming organic foods. In east Asia, environmental consciousness was identified as the principal motive toward organic food consumption. Similarly, environmental awareness was the key driver for consuming organic products in southeast Asia, while high prices were the most common factor for not consuming these products. In western Asia, organic food consumption is mostly driven by health consciousness and environmental concern too. In Europe, monthly income is the most factor influencing WTP premium prices for organic foods. In south America, social consciousness was the main driver for consuming organic products, whereas high prices were the main deterrent for organic food consumption. In Northern Africa, health consciousness and lifestyle was found to be significant in predicting the WTB organic products. In eastern Africa, both subjective norms and personal attitudes were the most common factors that motivate consumers to buy organic foods. In southern Africa, ethnicity and monthly income were the most frequent factors affecting the intention to purchase organic products, while inadequate availability were the most common barrier for organic food consumption.

In developed countries, regionally, both subjective norms and personal attitudes the most common factors that have positive contribution toward the intent to purchase organically grown products in western Asia, while skepticism was identified as key barrier for consuming organic foods. In western Europe, food quality is one of the most important motives for organic food consumption. In eastern and northern Europe and in north America, environmental concern and health consciousness were the most important motives for buying organic foods. In southern Europe, environmental concern was the most important driver for organic food consumption, while low level of confidence in certification was a main barrier for the growth of organic market.

9 Future directions and recommendations

This review could provide information for organic food producers, industries and retailers in developed and developing countries across all regions to boost organic food consumption. From a practical point of view, companies should adopt pricing strategies that take into account consumer's financial conditions in developing countries especially in Asia and south America. In addition, organic food industry should aim to facilitate the access to organic foods by offering them in different shopping venues, to improve packaging designs, and to place the products in an easily reachable location. Besides that, marketers should manage and guarantee the availability of organic food products in developing countries especially in Asia and south

America. The review also indicated that organic food knowledge is a key driver that influence organic food purchase intention in developing countries especially in south Asia. Therefore, educational campaigns to increase the awareness about the benefits of organic foods. On the other hand, food industries in developed countries especially in Europe and western Asia should build confidence in the organic label, improving the image of organic products with respect to the traditional products, and giving wider differences between the two products. Future studies should emphasize more on understanding the barriers for organic food consumption in both developed and developing countries.

In conclusion, the findings of this review underscore the importance of tailored strategies to address region-specific barriers and promote organic food consumption globally. For developing countries, enhancing affordability, improving supply chain infrastructure, and raising awareness about the benefits of organic foods are critical. In developed countries, efforts should focus on addressing skepticism through improved certification processes and consumer education. Future research should also explore the potential of integrating quantitative approaches such as meta-analysis to provide a more nuanced understanding of the factors driving organic food consumption across different cultural contexts.

Author contributions

SZ: Conceptualization, Methodology, Writing – original draft, Writing – review & editing. SH: Supervision, Writing – original draft, Writing – review & editing. CP: Conceptualization, Funding

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