

# Youth's Cognizance and Willingness to Pay for Organic Food Products in the Northern State of Punjab

Pooja Kansra<sup>1\*</sup> and Sumit Oberoi<sup>2</sup>

<sup>1</sup>Department Head of Economics, Mittal School of Business, Lovely Professional University, Phagwara, Punjab, India

<sup>2</sup>Symbiosis School of Economics, Symbiosis International University, Pune, India

## \*Correspondence to:

Pooja Kansra  
Department Head of Economics,  
Mittal School of Business,  
Lovely Professional University,  
Phagwara, Punjab, India.  
E-mail: [pkansra@gmail.com](mailto:pkansra@gmail.com)

Received: October 11, 2023

Accepted: November 10, 2023

Published: November 15, 2023

**Citation:** Kansra P, Oberoi S. 2023. Youth's Cognizance and Willingness to Pay for Organic Food Products in the Northern State of Punjab. *J Food Chem Nanotechnol* 9(S1): S635-S640.

**Copyright:** © 2023 Kansra and Oberoi. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY) (<http://creativecommons.org/licenses/by/4.0/>) which permits commercial use, including reproduction, adaptation, and distribution of the article provided the original author and source are credited.

Published by United Scientific Group

## Abstract

Epidemiological modifications, environmental issues (EI), and increased concern for nutritional values call for diet modification amongst diabetic patients. Food quality (FQ) and standards highly influence the attitude and buying behavior of individuals. Therefore, the present study aims to investigate the cognizance and willingness of the youths to buy organic food products in Punjab. The data is analyzed using descriptive statistics and logistic regression. The study accentuates that 80% of respondents know organic food products' availability in the market. The results of exploratory factor analysis (EFA) identify health consciousness (HC), FQ, EI, and price and packaging (PP) as significant factors affecting the purchase of organic food products. The logistic regression results highlight that female (0.711<sup>\*\*\*</sup>), awareness of organic products (0.136<sup>\*\*\*</sup>), and spousal insight (0.315<sup>\*\*\*</sup>) were the significant determinants of avidity to buy organic food products. Lastly, the negative coefficient (-0.715<sup>\*</sup>) of age reveals that youth are more inclined to buy organic food products than elders. However, exorbitant cost, non-availability, lack of variety, and less attractiveness are the pivotal barriers that impede purchasing organic food products. Marketers should also focus on these critical determinants to attract customers and gain a competitive advantage.

## Keywords

Cognizance, Organic food, Nutrition, Willingness to pay, Youth

## Introduction

Organic food emphasizes 'biological' and 'natural' ways of productivity, whereas others focus on the finite utilization of chemicals [1, 2]. Organic food products are the produce acquired in conformity with the quality of organic cultivation, which supports and elevates the well-being of ecosystems, soil and human beings. According to Hansen et al. [3], consumers are looking at two grouped characteristics in identifying organic foods that are general and commodity-specific attributes. General attributes relate to the safety of the food, health, environmental effects and farm animal concern, while commodity-specific attributes include variables such as visual appeal, nutritional value, taste, and freshness. Similarly, Sharma and Singhvi [4] defined organic food as a product obtained from an organic farming system which avoids the use of synthetic fertilizers and pesticides. Further, Harrison [5] supported the idea that organic food is a product that does not involve synthetic inputs, viz. pesticides, chemical fertilizers, or genetically modified organisms, and is not processed by adding food additives.

Epidemiological alteration, EI, and increased nutritional concern about food call for dietary modification by individuals. Increasing food complexities, viz. FQ and standard, highly influence individuals' attitudes and buying behavior towards organic food products [2]. Technological development in the past few decades has allowed mankind to intensify the food-growing process, viz. synthetic inputs,

genetically modified organisms, etc. [6]. Interest in organically produced food and traditional agricultural practices is escalating globally in response to the changing epidemiological concerns [7-9]. A report by ABR [10] highlighted that the global organic food market accounted for US\$103 billion in 2017 and is projected to be US\$441 billion by 2026. An exponential growth in the demand and supply of organic food products was recorded [11, 12]. Numerous studies highlighted the critical determinants of organic products' purchase intention: health benefits, environment-friendly, less adulterated and readily available [13-15].

According to ASSOCHAM, "India currently holds the ninth position among 178 countries that actively practice organic agriculture". India's organic food product index incorporates over 300 products in 20 categories. India has 0.83 million organic farmers and cultivates approximately 1.50 million hectares of organic produce [4]. The aggregated market size of organic food products in India was USD 7.04 million in 2016, estimated to be USD 8.71 million by 2021 [16]. Although India accounts for the most significant number of organic food producers, the market spread for organic food products could be more recent Mehra and Ratna [17].

Attitude towards the consumption of organic food is found to be affected by numerous factors. According to Padel and Midmore [18], health is a crucial determinant that steers the consumer's attitude towards organic food products. A healthy diet and environmental degradation are the most likely factors that encourage consumers to buy organic food [19]. According to Lockie et al. [20], "health, taste and environmental benefits are important considerations in consumers' choice of organic foods". Food safety and a healthy lifestyle are the primary determinants affecting consumers' attitudes toward organic goods [21]. Therefore, the typical organic food customer is environmentally and socially conscious and distrusts society, industry and modern technology. Hence, the most significant attitude underlying organic food purchase is distrust of modern food culture.

Generally, there are numerous barriers to purchasing organic food products, viz. cost, less easy availability, irregular supplies, lack of variety, etc. A plethora of literature stressed the barriers to purchasing organic food products, which incorporate consumers' unwillingness to pay soaring costs [22] and the lack of availability of organic food products [23, 24]. A significant barrier to purchasing organic food is the high-cost food products compared to conventional ones [25, 26]. However, it was observed that quality issues, lack of trust and brand name significantly affect an individual's purchase intention [27, 28]. Thus, the organic food market's current status is nascent in India and Punjab. Punjab stands at 25<sup>th</sup> among all Indian states, with a mere 961 hectare area under organic cultivation. Therefore, the present study aims to investigate the cognizance and willingness of the youths to buy organic food products in Punjab.

## Methodology

### Study rationale

The State of Punjab has always been a "Star" performer in

agriculture and has helped the nation achieve net food safety [29]. The state has earned the names such as "Food Basket of India" and "Granary of India", contributing 40% of rice and 60% of wheat to the central food pool. Moreover, Punjab is located in the Agro Climatic Zone-VI, called the "Trans-Gangetic Plains Region". The State of Punjab's total geographical area is 5.03 million hectares; 4.2 million hectares are used for cultivation with a cropping intensity of 189%. The state, with almost 83% of the geographical area utilized for agriculture practices and about 75% of its population directly dependent on agriculture, stands at 25<sup>th</sup> position among all Indian states, with a mere 961 hectare area under organic cultivation, as shown in figure 1. According to Verma [30], among all the states in the country, Punjab has the lowest number of 262 farmers practicing organic farming under the participatory guaranteed scheme (PGS), and just 367 have registered for the National Programme for Organic Product (NPOP) certification. A state like Sikkim was formally acknowledged as a 100% organic state by the year 2016. Therefore, this study aims to study cognizance level and willingness to pay for organic products in Punjab.

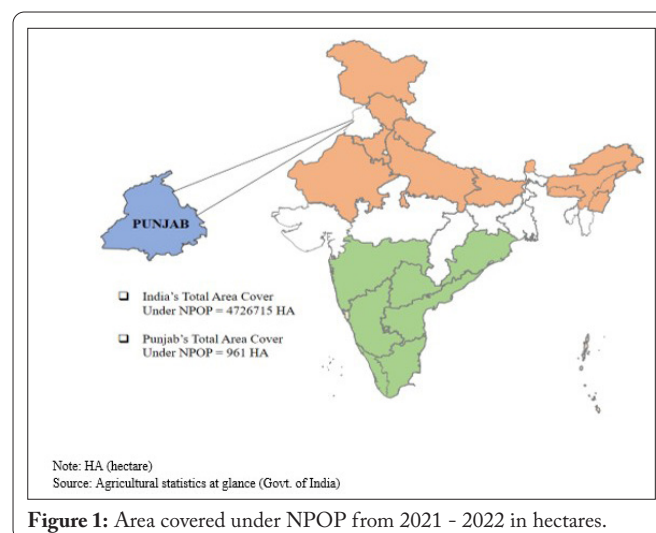


Figure 1: Area covered under NPOP from 2021 - 2022 in hectares.

### Study design

A cross-sectional research design has been employed for this study, and the data was collected using a self-administered questionnaire from young respondents in Punjab, India. The study employed a "convenience sampling" approach by using population census data from the statistical abstract of Punjab as the sample frame. The sample size was assessed based on approximations of willingness to buy pervasiveness. A sample of 384 young respondents was estimated from the urban areas of Punjab, grounded on a prior estimate of 50%, at 95% of the confidence interval [5].

$$\text{Sample Size } (n) = Z^2 (p) (q) / e^2$$

Where, Z = Confidence level. The observed value of Z is 1.96, the estimated value of p = estimated value and lastly, the margin error is highlighted to be e.

### Variables and measurement items

Respondents throughout the questionnaire were asked to assess their level of agreement for each item/statement. Data

was acquired using the online survey approach, for which the self-structure questionnaire was divided into two sections. The first section of the questionnaire mainly focuses on the respondent's identification and essential socio-economic characteristics. The second section of this study calls attention to the factors affecting the purchase of organic food products, which were identified from the available literature and were measured on a 5-point Likert scale: 1 = Strongly agree to 5 = Strongly disagree. This study considers four predictor variables, namely, HC, FQ, EI, and PP. Items for all variables were adapted from seminal papers by Yadav and Pathak [31] and Bagher et al. [32].

**Data source**

The online survey for the study was performed from the third week of November 2022 to the second week of January 2023. Estimates of both awareness and determinants of willingness to pay for organic food products were reported. As this study is part of a research project, the authors themselves collected the data through email replies. The collected responses were recorded into a microsoft excel worksheet for documentation. In the first worksheet, responses were registered in a predefined arrangement, viz. location, gender, age, marital status, income, and so on. Further, the data was cleaned, coded, and evaluated using the SPSS version 23 software.

**Statistical analysis**

Descriptive and inferential statistics were performed for the study analysis to highlight study respondents based on their socio-economic attributes. Mean, weighted average score and ranks were stated in this present study. Initially, the "Kaiser-Meyer-Olin" (KMO) test was calculated to assess sample adequacy. The normality of the data was examined by observing the "Shapiro-Wilks" test. Further, the significance of the correlation matrix was tested using Bartlett-Test. Henceforward, EFA was run to identify the factors affecting the purchase of organic food products. Lastly, the logistic regression technique is applied to estimate the determinants of willingness to pay for organic food products, which was used for the comparison at different socio-demographic levels, viz. age, education, income, etc. The logistic equation is given as follows:

$$P = \frac{\exp(\alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \dots \beta_i X_i)}{1 + \exp(\alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \dots \beta_i X_i)}$$

Where, P = probability of a case; exp = exponential function; Equation = intercept of the equation, and Equation = coefficient of the predictor variable.

**Results**

Table 1 of the study summarizes the demographic and socio-economic information of the respondents. Based on the age criterion, many respondents were between 20 and 25 years old, accounting for 253 (66%). Of the total respondents, only 27% (104) were married, and merely 02% of respondents were homemakers, followed by 06% (23) individuals in service. However, a large proportion of the respondents were students 265 (69%). The majority of the respondents were graduate and

**Table 1:** Study respondents' socio-demographic profile.

Items	N (%)
<b>Age</b>	
Up to 20 years	46 (12)
20 - 25 years	253 (66)
25 - 30 years	35 (09)
30 - 35 years	38 (10)
35 - 40 years	12 (03)
<b>Gender</b>	
Female	177 (46)
Male	207 (54)
<b>Marital status</b>	
Single	280 (73)
Married	104 (27)
<b>Education</b>	
Primary	23 (06)
Secondary	58 (15)
Graduate	134 (35)
Post graduate and above	169 (44)
<b>Occupation</b>	
Housewife	08 (02)
Business	38 (10)
Self-Employed	50 (13)
Service	23 (06)
Student	265 (69)
<b>Monthly income</b>	
Up-to ₹20,000	203 (53)
₹20,000 - ₹30,000	81 (21)
₹30,000 - ₹40,000	58 (15)
₹40,000 and above	42 (11)

Source: Based on author's calculation.

postgraduate, with a share of 35% (134) and 44% (169), respectively. The study's results highlight a low monthly income by 53% of the respondents, followed by 21% of individuals with a monthly income between ₹20,000 - ₹30,000. Lastly, only 11% of individuals had an annual income greater than ₹40,000 and above.

Table 2 highlights the awareness of the respondents towards organic food products. It was found that 80% of the respondents were aware of organic food products. Items, namely vegetables and fruits, with percentage portions of 27 and 25% dominated the list of the type of organic food is well-known. A large majority of respondents consider organic food to be highly nutritional. Educational institutions (30%) and television programmers (22%) are the primary sources of information from where respondents get knowledge and insight regarding the health benefits of organic food.

Sample adequacy is a major prerequisite for EFA. The observed value of 0.711 lucidly explains the sample adequacy determined using the KMO test. Further, the significance of the correlation matrix was assessed using "Bartlett-Test" ( $X_2 = 1.644E-3$ ). Hence, EFA was run using values. Outcomes of EFA highlighted four factors observed by amalgamating the variables that affect behavior towards organic food products. Table 3 highlights the four critical factors derived using factor analysis. The first factor explains



**Table 2:** Respondents awareness regarding organic food.

Items	N (%)
<b>Do you have any cognizance regarding organic food?</b>	
Yes	307 (80)
No	77 (20)
<b>If yes, what type of organic food are you aware of?</b>	
Vegetables	169 (44)
Fresh fruits	96 (25)
Fish and meat	57 (15)
Dairy products	31 (08)
Others	31 (08)
<b>Through which source you get knowledge about the benefits of organic food?</b>	
Doctors/dietician	23 (06)
Magazine	38 (10)
Friends and family	61 (16)
Television programmes	86 (22)
School	115 (30)
Others	61 (16)

**Table 3:** Factors affecting purchase of organic food products.

Items	
<b>Factor 1: HC (Variance = 25.321%)</b>	
I often eat healthy food products.	0.779
I often examine the quality before buying food products.	0.734
I avoid buying food products with additives and preservatives	0.673
Organic products are good for health	0.668
Organic products are tasty	0.662
<b>Factor 2: FQ (Variance = 18.023%)</b>	
I believe the quality of organic products is good	0.822
I trust the production process of organic products	0.854
Organic products are seasonal products	0.774
<b>Factor 3: EI (Variance = 11.225%)</b>	
I believe that organic products are environmentally friendly	0.881
I like to buy food products produced in an environmentally friendly way	0.878
<b>Factor 4: PP (Variance = 9.917%)</b>	
The price of the organic good is higher	0.755
The packaging of the organic products is poor	0.722
I prefer to buy products with good appearance	0.711

the variance of 25.321%, whereas the variance explained by the second factor was 18.023%, followed by 11.225% by the third factor. Lastly, the variance explained by the fourth factor was 9.917%. The factors that affect the attitude and

**Table 4:** Determinants of willingness to pay for organic products.

Variables	Coefficients	SE	Z-stats	Prob.
Gender	0.711**	0.338	2.104	0.035
Income	0.019	0.128	0.15	0.88
Education	0.003	0.124	0.03	0.975
Age	-0.715*	0.241	2.969	0.003
Occupation	0.145	0.252	0.577	0.564
Marital status	0.315**	0.602	0.522	0.002
Awareness of organic products	0.136***	0.159	0.849	0.095
Price	-0.696*	0.211	-3.29	0.001
Packaging	-0.360**	0.163	-2.2	0.027
Constant	4.910*	1.446	3.396	0
<b>Model summary</b>				
No of observations	384			
McFadden R <sup>2</sup>	0.124472			
L.R stats	45.39305			
Prob (L.R stats)	0.000001			
Sum2 resid	49.00485			

**Note:** \*Significant at 1%, \*\*Significant at 5%, and \*\*\*Significant at 10%.

**Table 5:** Barriers to purchase of organic food products.

S. No.	Status	Weighted avg. score	Rank
1	Organic products are costly	4.41	1
2	Organic products are not easily available	4.33	2
3	Organic products have an irregular supply	4.19	3
4	Organic products are not attractive	4.02	4
5	Organic products lack variety	3.96	5
6	Organic products are not tasty	3.8	6
7	There is not much difference between organic products and non-organic products.	3.76	7
8	Organic products are only purchased by higher income groups	3.65	8

behavior of youth towards organic food are HC, FQ, EI, and PP, as shown in table 3.

Table 4 of the study highlights the determinants of willingness to pay for organic food products by employing logit regression. The results of the analysis highlight that three variables showcase a negative relationship with willingness to pay parameters for organic food products. The negative coefficients (-0.715) of age reveal that younger individuals are more inclined to buy organic food products than elders. Similarly, negative coefficient values viz. -0.696 and -0.360 for PP clearly elucidate that with high PP costs, the respondents purchase fewer organic food products.

Further, variables like income (0.019) and education (0.003) highlight no significant relation with a willingness to pay for organic at a 10% level of confidence. Lastly, the coefficient value of gender (0.711\*\*) was witnessed to be significant at a 5% level of confidence. Thus, age and price were the most significant variables determining willingness to pay for organic food products. Table 5 discusses the various barriers to purchasing organic food products with the help of a weighted average score. Organic products, being costly, act as a barrier to purchasing behavior, with a WAS of 4.41 (ranked 1), followed by a lack of easy availability (ranked 2)

and irregular supply (ranked 3), with WAS of 4.33 and 4.19. The last ranking was similar between non-organic products and purchasing done by higher income groups with mean values of 3.76 (7<sup>th</sup> rank) and 3.65 (8<sup>th</sup> rank), respectively.

## Conclusion

Organic food is peculiar since it is associated by consumers with an array of attributes, among which the perceived positive impact on human health has been shown as the main one to drive consumer preferences. The organic food market is spread across various industry levels, viz. food and beverage, personal care, healthcare and textile. However, the proportion of consumers purchasing organic food products is relatively low in India and Punjab. It was found that many of the youth respondents are aware of organic food products, and their perception of organic products ranks health at the top, followed by high nutritional value. Further, the outcome of the EFA exhibited four key factors affecting purchasing organic food products. Factors such as HC, FQ, EL, and PP highly affect attitude and purchasing behavior. Lastly, the Logit model results clearly state that age, PP negatively affects the willingness to pay for organic products. On the other hand, gender, income, and marital status positively affect the willingness to pay for organic food products.

The study findings lucidly highlight that most respondents in Punjab have a cognizance towards organic food products; still, the proportion of land brought under cultivation for organic food products is very small. Therefore, farmers must be informed about the benefits associated with cultivating organic products. Moreover, the consumers should also be educated that barrier, viz. lack of variety and less easy availability, are no longer barriers to purchasing organic products because India's organic food product portfolio includes over 300 products in 20 different categories that are readily available.

This paper suggests copious implications for producers, retailers and policymakers. For Indian retailers and producers, the rising concerns are brand building, sustaining quality, and advertisement aspects, which is a clear call to action. Organic food product retailers can connect with social media influencers (e.g. Dilpreet Dhillon, Jassi Gill, Harmanpreet Kaur, etc.) to connect with youth and encourage the benefits of organic food products. Implications for policymakers are extensive and conceivably embedded in the extensive arrays of socioeconomic measures. The state government should substantially encourage food safety and quality grades by introducing a tiered structure encompassing various safety and quality criteria. Building trust in the quality of organic food products should be the utmost priority of organic farmers; the farmers should register themselves under various government schemes and put the "Bharatiya Prakritik Krishi Padhati" logo to highlight product authenticity. Secondly, lifestyle modification and changed consumer habits made retailers and producers charge high prices and stockpile natural organic food products, making the products costlier and unaffordable. Thus, policymakers should monitor such practices and encourage local grocery

stores to make natural and organic food products available at an effective cost.

## Study Limitation and Future Research Directions

The present study has a few limitations that must be addressed. Firstly, this article only emphasized understanding the perception and outlook of youths for organic food products and overlooked the other sections. Secondly, the present is cross-sectional in nature. The analysis and outcome could be diverse if the time-series data on the instance is looked upon. Lastly, the present study is carried out in a specific geographical area. Therefore, future studies should focus on broader geographical areas like Sikkim, which was formally declared a 100% "Organic State" in 2016. This study also paves the way for future research; this article suggests that future research should focus more on themes allied with frugal innovations in organic farming, product diversification, process innovation, and understanding the moderating role of environmental munificence in the sustainable development of organic farming.

## Acknowledgements

None.

## Conflict of Interest

None.

## References

1. Wandel M, Bugge A. 1997. Environmental concern in consumer evaluation of food quality. *Food Qual Prefer* 8(1): 19-26. [https://doi.org/10.1016/S0950-3293\(96\)00004-3](https://doi.org/10.1016/S0950-3293(96)00004-3)
2. Tsakiridou E, Tsioumanis A, Papastefanou G, Mattas K. 2007. Consumers' acceptance and willingness to buy GM food. *J Food Prod Mark* 13(2): 69-81. [https://doi.org/10.1300/J038v13n02\\_05](https://doi.org/10.1300/J038v13n02_05)
3. Hansen B, Alrøe HF, Kristensen ES. 2001. Approaches to assess the environmental impact of organic farming with particular regard to Denmark. *Agric Ecosyst Environ* 83(1-2): 11-26. [https://doi.org/10.1016/S0167-8809\(00\)00257-7](https://doi.org/10.1016/S0167-8809(00)00257-7)
4. Sharma N, Singhvi R. 2018. Consumers perception and behaviour towards organic food: a systematic review of literature. *J Pharmacogn Phytochem* 7(2): 2152-2155.
5. Harrison D. 2007. The business of food: encyclopedia of the food and drink industries. *Ref Rev* 23(1) 16-16. <https://doi.org/10.1108/09504120910925526>
6. Laroche M, Bergeron J, Barbaro-Forleo G. 2001. Targeting consumers who are willing to pay more for environmentally friendly products. *J Consum Mark* 18(6): 503-520. <https://doi.org/10.1108/EUM00000000006155>
7. Baltas G. 2001. Nutrition labelling: issues and policies. *Eur J Mark* 35(5/6): 708-721. <https://doi.org/10.1108/03090560110388178>
8. Fotopoulos C, Krystallis A. 2002. Purchasing motives and profile of the Greek organic consumer: a countrywide survey. *Br Food J* 104(9): 730-765. <https://doi.org/10.1108/00070700210443110>
9. Savelli E, Murmura F, Liberatore L, Casolani N, Bravi L. 2019. Consumer attitude and behaviour towards food quality among the young ones: empirical evidences from a survey. *Total Qual Manag Bus Excell* 30(1-2): 169-183. <https://doi.org/10.1080/14783363.2017.1300055>

10. ABR reports. 2019. "2019-2024 Global and Regional Organic Food and Beverages Industry Production, Sales and Consumption Status and Prospects Professional Market Research Report. [https://www.absolutereports.com/2019-2024-global-and-regional-hplc-industry-production-sales-and-consumption-status-and-prospects-professional-market-13526780] [Accessed November 15, 2023]
11. Hughner RS, McDonagh P, Prothero A, Shultz CJ, Stanton J. 2007. Who are organic food consumers? a compilation and review of why people purchase organic food. *J Consum Behav Int Res Rev* 6(2-3): 94-110. https://doi.org/10.1002/cb.210
12. Rana J, Paul J. 2017. Consumer behavior and purchase intention for organic food: a review and research agenda. *J Retail Consum Serv* 38: 157-165. https://doi.org/10.1016/j.jretconser.2017.06.004
13. Soyez K. 2012. How national cultural values affect pro-environmental consumer behavior. *Int Mark Rev* 29(6): 623-646. https://doi.org/10.1108/02651331211277973
14. Lobo A, Greenland S. 2017. The influence of cultural values on green purchase behaviour. *Mark Intell Plan* 35(3): 377-396. https://doi.org/10.1108/MIP-08-2016-0131
15. Rani S, Singla N. 2018. Consumption pattern of organic foods among urban consumers of Punjab State, India. *Asian Food Sci J* 6(2): 1-11. https://doi.org/10.9734/AFSJ/2019/44553
16. ASSOCHAM. 2018. The Indian Organic Market: A New Paradigm in Agriculture [https://www.scribd.com/document/483184860/eye-the-indian-organic-market-report-online-version-21-march-2018] [Accessed November 15, 2023]
17. Mehra S, Ratna PA. 2014. Attitude and behaviour of consumers towards organic food: an exploratory study in India. *Int J Bus Exce* 7(6): 677-699. https://doi.org/10.1504/IJBEX.2014.065503
18. Padel S, Midmore P. 2005. The development of the European market for organic products: insights from a Delphi study. *Br Food J* 107(8): 626-646. https://doi.org/10.1108/00070700510611011
19. Gil JM, Gracia A, Sanchez M. 2000. Market segmentation and willingness to pay for organic products in Spain. *Int Food Agribus Manag Rev* 3(2): 207-226. https://doi.org/10.1016/S1096-7508(01)00040-4
20. Lockie S, Lyons K, Lawrence G, Grice J. 2004. Choosing organics: a path analysis of factors underlying the selection of organic food among Australian consumers. *Appetite* 43(2): 135-146. https://doi.org/10.1016/j.appet.2004.02.004
21. Baker S, Thompson KE, Engelken J, Huntley K. 2004. Mapping the values driving organic food choice: Germany vs the UK. *Eur J Mark* 38(8): 995-1012. https://doi.org/10.1108/03090560410539131
22. Vindigni G, Janssen MA, Jager W. 2002. Organic food consumption: a multi-theoretical framework of consumer decision making. *Br Food J* 104(8): 624-642. https://doi.org/10.1108/00070700210425949
23. Tregear A, Dent JB, McGregor MJ. 1994. The demand for organically grown produce. *Br Food J* 96(4): 21-25. https://doi.org/10.1108/00070709410061032
24. Lea E, Worsley T. 2005. Australians' organic food beliefs, demographics and values. *Br Food J* 107(11): 855-869. https://doi.org/10.1108/00070700510629797
25. Jolly DA. 1991. Differences between buyers and nonbuyers of organic produce and willingness to pay organic price premiums. *J Agribus* 9: 97-111. https://doi.org/10.22004/ag.econ.62304
26. Roddy G, Cowan CA, Hutchinson G. 1996. Consumer attitudes and behaviour to organic foods in Ireland. *J Int Consum Mark* 9(2): 41-63. https://doi.org/10.1300/J046v09n02\_03
27. Magnusson MK, Arvola A, Hursti UKK, Åberg L, Sjöden PO. 2001. Attitudes towards organic foods among Swedish consumers. *Br Food J* 103(3): 209-227. https://doi.org/10.1108/00070700110386755
28. Krystallis A, Chrysosoidis G. 2005. Consumers' willingness to pay for organic food: factors that affect it and variation per organic product type. *Br Food J* 107(5): 320-343. https://doi.org/10.1108/00070700510596901
29. Gulati A, Roy R, Saini S. 2021. Revitalizing Indian Agriculture and Boosting Farmer Incomes. Springer Nature.
30. Verma S. 2022. Punjab has the least number of organic farmers in the country. [http://timesofindia.indiatimes.com/article-show/90553586.cms?utm\_source=contentofinterest&utm\_medium=text&utm\_campaign=cppst] [Accessed November 15, 2023]
31. Yadav R, Pathak G S. 2016. Intention to purchase organic food among young consumers: evidence from a developing nation. *Appetite* 96: 122-128. https://doi.org/10.1016/j.appet.2015.09.017
32. Bagher AN, Salati F, Ghaffari M. 2018. Factors affecting intention to purchase organic food products among Iranian consumers. *Acad Mark Stud J* 22(3): 1-23.