



## Santépublique

### Consumer awareness and actual buying behaviour of organic food in Algeria

Sensibilisation des consommateurs et comportement d'achat réel d'aliments biologiques en Algérie

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**Abstract Introduction.** The adverse effects awareness of the chemicals misuse applied in food production is continuously increasing among consumers. In parallel, there is a rising trend in purchasing organically grown foods. **Objective.** This study aimed to evaluate Algerian consumers awareness and attitudes toward organic food products, and identify factors influencing their decision to purchase these organically grown foods. **Material and methods.** Survey data were obtained from 429 consumers *via* a 32-scale structured questionnaire, and evaluated with SPSS 25.0 and AMOS 25.0 using confirmatory factor analysis (CFA), and structural equation modeling (SEM). Hypotheses were verified by evaluating data *via* SEM, where mediating variables were attitude and purchasing intention. **Results.** The main reasons for Algerian consumers to consume organic food were health concerns, followed by environmentally friendly, pesticide-free, and better taste. Moreover, three factors namely health consciousness, subjective norms, and perception of availability were revealed to influence consumer buying behaviour towards organic food products. This occurred either by a direct effect such as availability perception or by a partial mediation of purchase intention, like subjective norms or by full mediating of attitude toward organic food, and purchase intention as the health consciousness factor did. **Conclusion.** The present study can guide and help agricultural policymakers to promote shifting to organic farming, which would benefit the ecosystem and human wellbeing. Furthermore, the report provides clear guidance

for industry professionals who need to develop successful marketing strategies by addressing the main motivators of organic food consumption.

**Key words:** *Actual buying behaviour, Consumer awareness, Health consciousness, Organic food, Pesticide*

**Résumé Introduction.** Les consommateurs sont de plus en plus conscients des effets secondaires de l'utilisation abusive des produits chimiques utilisés dans la production alimentaire. Parallèlement, la tendance à l'achat d'aliments issus de l'agriculture biologique augmente. **Objectif.** Cette étude visait à évaluer la sensibilisation et les attitudes des consommateurs algériens envers les produits alimentaires biologiques et à identifier les facteurs influençant la décision d'achat de ces aliments. **Matériel et méthodes.** Les données de l'enquête ont été obtenues auprès de 429 consommateurs via un questionnaire et évaluées avec SPSS 25.0 et AMOS 25.0 en utilisant une analyse factorielle confirmatoire (CFA) et une modélisation par équation structurelle (SEM). Les hypothèses ont été vérifiées en évaluant les données via SEM, où les variables médiatrices étaient l'attitude et l'intention d'achat. **Résultats.** L'analyse a montré que les principales raisons pour lesquelles les consommateurs algériens consommaient des aliments biologiques étaient les problèmes de santé, suivis par les problèmes d'environnement et sans l'utilisation de pesticides. De plus, trois facteurs, à savoir la conscience de la santé, les normes subjectives et la perception de la disponibilité, ont été rapportés influencer le comportement d'achat des consommateurs envers les produits alimentaires biologiques. Cela s'est produit soit par un effet direct, tel que la perception de la disponibilité ou par une médiation partielle de l'intention d'achat comme les normes subjectives ou par la médiation complète de l'attitude envers les aliments biologiques et l'intention d'achat comme le facteur de conscience de la santé. **Conclusion.** La présente étude peut guider et aider les décideurs agricoles à promouvoir le passage à l'agriculture biologique, ce qui serait bénéfique pour l'écosystème et le bien-être humain. En outre, ce rapport fournit des conseils clairs aux professionnels de l'industrie, qui doivent développer des stratégies de marketing efficaces en s'attaquant aux principaux facteurs de motivation de la consommation d'aliments biologiques.

**Mots clés :** *Comportement d'achat réel, Sensibilisation des consommateurs, Conscience de la santé, Aliments biologiques, Pesticides*

## Introduction

Rapid industrial development and growing population are putting more pressure on agricultural production methods to enhance crop yields. Several studies have expressed concerns about the high usage of chemical fertilisers and pesticides to increase food production yields. Consumers are becoming more aware of the adverse consequences of these heavily polluting methods and contaminated food products [1]. Furthermore, environmental degradation, which is mostly caused by industrial growth, has increased interest in green and eco-friendly goods. Besides, buying decisions are highly affected by cultural, socio-economic, and other factors. The same is valid in the food sector, where hazardous agricultural practices are being changed by

sustainable farming approaches to provide environmentally friendly products like organic food [2]. Many factors influence the awareness level of organic food among consumers. From this perspective, studies have been experimentally determined that the socioeconomic, demographic food-purchasing behaviour, and nutrition knowledge of consumers are influential in determining the level of awareness and decision to buy organic food [3].

The organic sector in Algeria must be differentiated into two main categories: non-certified organic products, and certified organic products [4]. In the first category, a significant portion of traditional agricultural activity, which accounts for most of the Algerian Agricultural Sector (AAS), must be included (70% of AAS). A large part of the rural areas population, especially in the mountains and oasis, has

access to these organic products at reasonable prices. Also, we must not neglect all the production from small family farms, intended mainly for self-consumption. This production is completely natural; the farmers very rarely resort to chemical fertilisers or pesticides for pest control. Certified organic farming, which falls under the second category, is in its infancy [4]. The first organic conversion initiatives began in 2000 [5]. They are divided into four categories, with dates accounting for 40% of the organic area, olives for 34%, and olive oil accounting for 10% of the organic area. Biskra, Relizane, Mascara, and Mila are the four regions of the country where most of the areas that have been certified and are undergoing conversion are located.

Many observational experiments have been performed to better explain why people purchase (or do not purchase) organic food and to determine the factors that influence their purchasing decisions. The vast majority of these studies relied on information gathered by surveys or interviews [6]. Universal research consensus presents a compelling image of why people consume organic food. Although priority lists can differ depending on cultural and demographic factors, the major causes are health, product quality, and concern for the environment [7]. This section outlines the current state of knowledge on the variables that influence the purchase of organic foods and introduces the study hypotheses.

Consumers purchase organic foods for a variety of reasons. One of the most important reasons is health benefits. Makatouni [8] reported that health concerns are the major factors influencing consumers desire to buy organic foods. The above argument leads to this hypothesis: H1. Health consciousness significantly affects consumer behaviour towards organic products.

Consumers need to know about everything they buy to meet their expectations and desires. Food knowledge, which is a form of cognitive learning, is an essential factor that can influence consumer behaviour. The purchase of environmentally friendly products is inseparably linked to customer knowledge of the environment and ecology [9]. Thus, it is hypothesised that: H2. Consumers knowledge positively affects their attitudes toward organic products.

Subjective norms have a strong effect on customers attitude toward organic items and purchasing decisions. Consumers subjective norms are dictated by their families, relatives, colleagues, and friends. Customers attitudes are thus influenced by those people around them [9]. Thus, we proposed the

following hypothesis. H3. Subjective norms would have a favourable impact on the consumers attitude toward organic food.

One of the key obstacles in improving organic food consumption is organic food perception as being expensive [2]. In contrast, organic food buyers are less concerned about low prices [10]. Thus, we proposed the following hypothesis: H4a. The perceived price affects the consumers attitude towards organic products.

The lack of organic foods availability is an obstacle to their consumption [2]. One of the critical issues with organic food demand in many developing countries is the inaccessibility to data information and markets [11]. Consumers dislike wasting time looking for organic goods [12]. Thus, hypothesis 4b is formulated as follows: H4b. The perception of availability may positively impact the consumers attitudes toward organic food products.

Attitude is a relational concept that develops from interactions with an environment or activity [13]. Attitudes are among the most potent predictors of purchasing intention and can significantly impact actual buying of organic foods. According to previous research, increased organic food buying behaviour is closely related to a favourable attitude [14], and purchasing intention [15], which is thought to be the precursor to actual behaviour [16]. In contrast, Hughner *et al.*, [7] realised that although many customers had a favourable attitude toward purchasing organic products, only a limited fraction of those consumers actually bought those products. Thus, we planned to investigate the impact of contributing influences on buying intention and actual purchase behaviour by proposing the following hypotheses: H5a. Influencing factors have a significant impact on buying intention *via* mediating effect of attitude. H5b. Influencing factors have a significant impact on organic foods actual buying behaviour *via* mediating effects of attitude and purchase intention.

Attitude towards organic foods and the intention to purchase is expected to be correlated with purchase behaviour. The customer intention to purchase a product is the greatest indicator of real buying behaviour [1].

Thus, this study aimed to evaluate the consumer awareness of organic food products, and explore the factors affecting consumers purchase decisions, as knowledge and awareness of the various organic products attributes were vital in generating interest for organic goods on the market.

## Material and methods

### Data collection

Empirical data were collected through a survey questionnaire to evaluate the proposed hypotheses; the questionnaire items were adopted from previous studies [1,17,18]. The questionnaire was distributed between January and March 2021 to 430 consumers who were randomly selected through social media platforms, including Emails, Facebook, and WhatsApp in Algeria. The questionnaire was pilot tested by 93 Algerian consumers to make sure that questions and answers formats were straight forward. Minor changes were made to the phrasing of the survey based on feedback received. The revised questionnaire had 40 questions divided into two sections A and B. The demographic characteristics were addressed in section A of the survey, which contained either open-ended and closed-ended questions (age, gender, education level, occupation, household income, etc.). Section B of the survey included questions about organic food awareness.

### Sample size

The sample size was estimated using the method of Altarawneh [3], the questionnaire was completed by 429 participants from different regions of the country (population: 43,000,000), and the data sample was determined using the following formula:

$$n = ((p \times q \times z^2) / e^2) / ((N \times e^2) + (z^2 \times p \times q) / (N \times e^2))$$

Equation 1

*Sample size is denoted by the letter n. P = Probability of the sample occurrence = (0.5). q = Probability of sample not occurring = (1- p) = (0.5). The letter z represents the standardised score = (1.96). Error term = e = (0.05). N = Population size = (43,000,000).*

### Statistical analysis

Simple data analysis methods, including descriptive statistics, were applied by using SPSS 25.0. The factors affecting consumer behaviour against organic products were determined. Confirmatory factor analysis (CFA) was used in the first stage to examine the measurement model as well as the validity and reliability of the adopted study measures. The model fit was verified by the minimum Chi square/degrees of freedom (CMIN/df) value, comparative fit index (CFI), incremental fit index (IFI), Tucker-Lewis index (TLI), and root mean square error of approximation (RMSEA). Following that, the structural equation model (SEM) was applied by using Analysis of Moment Structures (AMOS 25.0) software, to validate the hypothesised model in the second level.

## Results

### Socio-demographic profile

A summary of the participants profiles (gender, age, education, occupation, household size, and monthly revenue) is presented in **Table 1**. Data were collected from 429 individuals from four separate regions (centre, east, west, and south of country). Approximately 53% of the participants were males, females made up the remaining 47%.

**Table 1. Socio-demographic characteristics of consumers**

Indicators	Frequency (N)	Percentage (%)
<b>Gender</b>		
Male	231	53.80
Female	198	46.20
<b>Age (year)</b>		
18-30	172	41.10
31-40	163	38.00
41-50	70	16.30
51-60	19	4.40
Above 60	5	1.20
<b>Academic qualification level</b>		
Intermediate	8	1.90
High school	47	11.00
University graduate	285	66.40
Ph.D	89	20.70
<b>Household size</b>		
1 to 2	44	10.30
3 to 4	173	40.30
5 or more	112	49.40
<b>Monthly Income</b>		
Less than 20,000 DZD	81	18.90
20,001 to 50,000 DZD	181	42.20
50,001 to 80,000 DZD	99	23.10
Above 80,001 DZD	68	15.90
<b>Occupation</b>		
Student	90	21.00
Employee	200	46.60
Self-employed	58	13.50
Unemployed	76	17.70
Retired	5	1.20
<b>Location</b>		
West cities	32	7.46
East cities	96	22.38
Central cities	164	38.23
South cities	137	31.93

*N = 429.*

Forty-one percent of the participants were aged between 18 and 30 years, followed by 38% between 31 and 40. Graduates formed the majority of consumers (66.4%), followed by postgraduates

(20.7%), and others with higher secondary qualifications (11%). The most participants had a salary between 20,001 DZD and 50,000 DZD, and the majority (49.4%) of participants resided in five or more individual households, with another 40.30% residing in three to four-person households. In 10% of the households, there was at least one child. Concerning residence location, the north-central area had the highest respondent rate with 38.23% corresponding to 164 persons, followed by the southern zone with 31.93% of the sample size. This was followed by the east and west regions, where the percentage of respondents were 22.38% and 7.46% of the sample size respectively.

### Reasons for buying organic products

The respondents that have been introduced to the concept of 'organic' production were asked about the reasons for choosing organic foods. According to 52% of respondents, the primary motivation was its healthier content. However, over half of respondents identified other factors, as the justification to eat organic food, like pesticide-free (17%), environmentally friendly (13%), improved taste (13%), and trying something new (5%).

### Reliability of the questionnaire

#### Overall reliability statistics

The reliability of the instrument was assessed by Cronbach's alpha, with values ranging from 0 to 1, in which, the greater the value, the better reliability. Zikmund *et al.*, [19] have reported that the model is considered as excellent reliable when between 0.80 and 0.95, good reliable (between 0.70 and 0.80), adequate reliable (between 0.60 and 0.70), and weak reliable (less than 0.60). The overall reliability result

showed an excellent reliability with a Cronbach's alpha of 0.898.

### Measurement model reliability and validity

The convergent honesty and reliability should be assured in the CFA protocol, in addition to obtaining fit indexes. Furthermore, Cronbach's Alpha is used in this analysis by CFA to ensure reliability [20]. **Table 2** showed that the composite reliability (CR) for KOF and PP was less than 0.70. In addition, the convergent validity (AVE) for KOF, SN, and PP was less than 0.50. Also, the discriminant validity: the AVE for KOF was less than the MSV. Therefore, adjustments have been made to improve validity.

### Modified reliability and validity

After many modifications were undertaken, **Table 3** showed that the reliability threshold has been reached for all constructs with values greater than 0.65, CR greater than 0.7, AVE greater than 0.5, and MSV below AVE, except for KOF and PP, which were excluded from further analysis. Thus, all reliabilities and validities of the other factors in this model have been achieved. As a result, discriminant validity was assumed to have been attained.

**Table 3. Modified reliability and validity**

Constructs Code	Cronbach's Alpha	CR	AVE	MSV
HC	0.791	0.898	0.688	0.373
SN	0.697	0.704	0.505	0.458
POA	0.805	0.800	0.510	0.167
ATOF	0.863	0.866	0.619	0.507
PI	0.634	0.876	0.640	0.507
ABB	0.850	0.833	0.565	0.458

HC: Health Consciousness; SN: Subjective Norms; PP: Perceived Price; POA: Perception of Availability; ATOF: Attitude Towards Organic Foods; PI: Purchase Intention; ABB: Actual Buying Behaviour.

**Table 2. Reliability and validity**

Code	Constructs	Cronbach's Alpha	CR	AVE	MSV
KOF	<b>Knowledge of organicfoods</b>	0.653	<b>0.383</b>	<b>0.234</b>	<b>0.310</b>
HC	HealthConsciousness	0.791	0.898	0.688	0.373
SN	<b>Subjective Norms</b>	0.697	0.711	<b>0.487</b>	0.462
PP	<b>Perceived Price</b>	0.732	<b>0.647</b>	<b>0.300</b>	0.141
POA	Perception of Availability	0.805	0.800	0.510	0.167
ATOF	Attitude towardsOrganicFoods	0.863	0.866	0.619	0.507
PI	Purchase Intention	0.634	0.876	0.640	0.507
ABB	ActualBuyingBehaviour	0.850	0.833	0.565	0.458
Statistics				Suggested	
Composite Reliability (CR)				>0.7	
Average Variance Extracted (AVE)				>0.5	
Convergent Validity				AVE>0.5	
Discriminant Validity				MSV<AVE	



### Hypotheses testing

According to the statistical path outcome, which was established on the maximum probability estimation, five hypotheses were indicated as statistically significant, while the others were not significant (Table 4). The following were the significant hypotheses: H1. Health consciousness has a favourable effect on consumers ATOF, H5a. Subjective norms have a favourable effect on the ABB of consumers toward organic food products *via* PI mediation, H5a. The attitude would have a favourable effect on the ABB of consumers toward organic food products *via* PI mediation, H5b. Subjective norms have a favourable effect on the ABB of consumers on organic food products, and H5b. Perception of availability has a favourable effect on the ABB of consumers on organic food products.

### Mediating effects

According to Table 4, independent variable (health consciousness) had no significant direct correlation with PI and ABB. Also, there was no significant direct relationship between perception of availability and PI. Furthermore, there was a meaningful relationship between health-consciousness and ABB through mediating variables (ATOF and PI), and another relationship between subjective norms and ABB through mediating effect of PI as shown in Table 4 since the *p*-value was significant ( $p < 0.05$ ).

**Table 4. Confirmation of hypotheses**

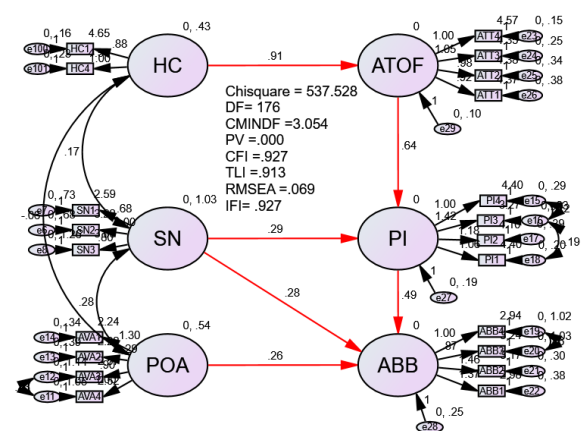
Hypothesis	Hypothesized Path	Estimate	Significance
H1	HC → ATOF	0.912	***
H3	SN → ATOF	-0.003	0.935
H4a	PP → ATOF	0.028	0.415
H4b	POA → ATOF	0.066	0.122
H5a	HC → PI	-0.346	0.052
H5a	SN → PI	0.294	***
H5a	PP → PI	0.046	0.235
H5a	POA → PI	-0.51	0.314
H5a	ATOF → PI	0.927	***
H5b	HC → ABB	-0.013	0.947
H5b	SN → ABB	0.263	***
H5b	PP → ABB	-0.046	0.284
H5b	POA → ABB	0.253	***
H5b	ATOF → ABB	-0.115	0.599
H5b	PI → ABB	0.615	***

CC: Health Consciousness; SN: Subjective Norms; PP: Perceived Price; POA: Perception of Availability; ATOF: Attitude Towards Organic Foods; PI: Purchase Intention; ABB: Actual Buying Behaviour. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

As a result, there were three indirect mediation variables with a significant effect, which were as follows: - There was a full mediation between HC and ABB through attitude and purchase intention. - There was a partial mediation between subjective norms and ABB *via* purchase intention. - There was no mediating variables between availability perception and ABB.

### Revised structural model

The goodness of fit indices for the revised model fit was highly satisfactory (Fig. 1). The root-mean-squared error associated (RMSEA = 0.069) was appropriate, as a strong model had an RMSEA value less than or equal to 0.08 and close to 0.



**Fig. 1. Revised structural model for a complete mediation**  
HC: Health Consciousness; ATOF: Attitude Towards Organic Foods; SN: Subjective Norms; PI: Purchase Intention; POA: Perception of Availability; ABB: Actual Buying Behaviour.

The value of Normed Chi-Square was also within an appropriate range (CMINDF = 3.054), in which, a good value should be near to 2.0 value [21]. Comparative fit index (CFI), Tucker-Lewis Index (TLI) and incremental fit index (IFI) values were suitable since they were greater than 0.90 (CFI = 0.927, TLI = 0.913, IFI = 0.927), which was needed for the model adequacy.

### Discussion

The quantitative analysis approach was chosen to investigate the interaction between the observed variables which are knowledge of organic foods (KOF), health consciousness, subjective norms, perceived price, perception of availability, attitude towards organic foods, purchase intention, and actual buying behaviour. Statistical studies were used to assess the relationship between independent variables (HC, KOF, SN, PP, POA) and real purchasing behaviour of Algerian customers, as well as, the

mediating variables (attitude toward organic foods and purchase intention). This quantitative approach was used to evaluate hypotheses, models, and causal relationships between variables based on the characteristics of the study [22]. Using this quantitative approach, variables that affect actual buying behaviour were evaluated. Distribution of respondents living areas in the survey was similar to that of Algeria. This resemblance was also seen in terms of gender, education, and household size. When all information collected in this analysis was considered, it was reasonable to conclude that demographic and socioeconomic information was reflective of whole country.

More than half of respondents have chosen the healthy content as a reason for buying organic products, followed by other reasons, such as pesticide-free, environmentally friendly, improved taste and trying something new. These findings are in accordance with those of Singh and Verma [18] which found that healthy substance was the biggest justification for buying organic food, followed by other reasons like absence of pesticides, lower residue levels freshness and environmentally friendly. Prior studies have addressed a variety of variables that influence organic food demand over time. One of the reasons behind the change in mindset toward organic food was self-esteem [23]. Several researchers indicated that food safety, quality, and freshness were drivers of demand [6]. Concern for the ecosystem was also cited as a factor driving demand in these reports. This was because organic food was known to be more environmentally sustainable. After all, pesticides and other crop-protecting chemicals are not used in organic food production [24]. Nonetheless, perceptions of organic food higher nutritional benefit were a significant factor driving demand. Several researchers have identified health consciousness as a component influencing organic food buying decisions. In other terms, enhanced health awareness allows customers to differentiate between nutritional qualities of conventional and organic foods, leading them to purchase organic foods [25].

In our revised model, three independent variables, namely health consciousness, subjective norms and perception of availability were found to influence the actual buying behaviour of the Algerian consumers, either directly or indirectly through the mediation of the attitude and purchase Intention. Whereas, consumers knowledge of organic foods and perceived price were not significantly affected actual buying behaviour, in which 75.6% of the respondents were

either neutral or agreed that organic foods should be consumed even at higher prices. Additionally, most of respondents had knowledge about organic food products. These findings are similar to those reported by Singh and Verma [18] who explored variables that influence Indian customers real purchasing decisions on organic foods. They found that four influencers affected customer ATOF products: health consciousness, subjective norms, knowledge, and price. However, these four factors, as well as, one other factor, affected buying intentions for organic foods (*i.e.* availability). Findings indicated that these five influences still affected ABB, but that ATOF and PI served as mediators. Another research conducted by Basha *et al.*, [1], found that consumers reasons for purchasing organic food products were diverse, but mostly involved health concerns, environmental issues, product quality, lifestyle and their subjective norms. According to Janssen [26], healthiness and naturalness, as well as environmental sustainability, were the most crucial elements influencing attitudes about organic food and its purchases decision. The need for 'high-quality food and pleasure of eating' was also a major positive determinant, while 'convenience orientation' and 'price consciousness' had a strong negative impact on ATOF and PI. In their report, Rana and Paul [23] described research that focused on diverse issues and motivations for buying organic products, such as labelling and certification in Canada, safety in Portugal, ethical consumerism in Italy, affordability in Slovenia, and perceived price in China and Japan. Thus, it becomes essential to gain an understanding of the most and least influential factors of customers attitudes regarding organic products. This will aid in raising awareness of the most critical factors that contributed to the development of a favourable attitude toward organic food through advertising and promotional activities. Simultaneously, the negative connotations of these inhibitory causes must be deliberately minimised [23]. This would result in a change in the customers attitudes of organic food, as well as the underlying causes.

Despite significant findings in this study, certain limitations should be considered when interpreting data. To begin, this research examined the effect of a few selected influences on customer attitudes toward organic foods. Future studies in this area should examine consumer attitudes about organic food goods in the context of advertising, government policy, and distribution. Second, the research took place in Algeria, a large country. This was why 429 customers might not be appropriate sample size

taking into account socio-economic specificities of regions to generalize these findings. Consequently, further experiments of a large sample size should be performed to increase the conclusion reliability.

## Conclusion

Consumers actual buying behaviour is affected by several factors. Primary reason for purchasing organic food products by Algerian consumers is health concerns. However, more than half of respondents listed additional reasons for consuming organic food, including environmental-friendly food, pesticide-free, better taste and the opportunity to experience something different. Three influencers are identified (health consciousness, subjective norms and perception of availability) that affect the customer ABB towards organic food products either by a direct effect, such as perception of availability as consumers make purchase-related decisions based on store locations or by partial mediating of PI like subjective norms or by full mediating of ATOF and PI. As favourable attitudes, and purchasing intentions are not often converted into real buys of organic food products.

Consumers believe that organic products are more costly. However, they agree that a higher price may be justified due to the product safe contents and eco-friendliness. Consumers do not limit their purchases to organic foods, and they purchase both organic and non-organic foods. Analysed model accounts for significant portion of variation in customer buying behaviour. Therefore, buyers should be motivated by information to increase their intention to purchase, and this can be one of the techniques for increasing organic food demand.

## Recommendations for market actors

The study findings have consequences for manufacturers of organic products, suppliers, and market regulatory agencies. It is essential to formulate an intelligent strategy considering consumers worries regarding health and environmental concerns. The strategy should be targeted at a particular group of customers, growing knowledge and awareness of organic food items while ensuring customer delight and satisfaction. Additionally, research will assist organic food producers in identifying their target audiences by demonstrating the socioeconomic factors impact on organic food sales. The study can help health and wellness industries reorganise their manufacturing and marketing strategy to meet growing customer desire for healthy food options and effectively plan for

their growth and development. The findings show that marketers of organic food should segment their markets carefully and adapt their marketing plans and strategies to persuade these potential customers regarding organic food products advantages.

## Conflict of interests

The authors declare that they have no specific conflicting financial interests or personal partnerships that could have influenced the work presented in this article.

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