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Digital channels and green transition: Consumer behaviour as for organic food e-commerce platforms

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Abstract

This paper investigates how some factors affect the willingness to buy organic food on e-commerce platforms. Data have been collected using a web-based survey with 490 respondents. A factor analysis was used to analyze data and later to consider them in a Poisson Count Regression Model. The findings show that well-educated and high-income women are more willing to purchase organic food on e-commerce platforms than others. Moreover, other drivers, such as food quality attributes and people's attitudes towards green consumption and digital channels, affect people's willingness to buy organic food online. These results should be useful for experts dealing with organic food. Marketing campaigns should consider all the drivers affecting people's willingness to purchase organic food online to target the market by designing communication content susceptible to generating the greatest appeal.

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Introduction

In order to keep the livable and sustainable Earth, the European Union supports the twin green and digital transition (Muench *et al.*, 2022). Ecological transition wants to achieve sustainability and reduce pollution, while digital transition focuses on the use of digital tools to support economic growth (Muench *et al.*, 2022). In other words, ideally, the green and digital channels support each other (Muench *et al.*, 2022). In this framework, both green and digital transitions have interested many sectors, including agrifood (Camaréna, 2020; Hassoun *et al.*, 2023; Muench *et al.*, 2022). In fact, on the one hand, the usage of digital technology greatly affects the food sector, improving high-quality development and ecological growth in the agrifood sector (Camaréna, 2020; Pires *et al.*, 2022). On the other hand, digital technologies have changed consumer behaviour (Pires *et al.*, 2022). Thus, it is becoming central to study consumers' purchase decision-making process (do Paço *et al.*, 2019; Pires *et al.*, 2022). According to Palmieri *et al.* (2024), people's attitudes towards digital channels positively affect consumer buying behaviour. Moreover, platform characteristics and product attributes impact people's intention to purchase through digital channels (Lin *et al.*, 2021). Among attributes of food, people pay more attention to organic production, countries of provenience, and products with PDO, PGI, and TSG indication (Aizaki & Sato, 2020; Chryssochoidis *et al.*, 2007; Hempel & Hamm, 2016). In particular, organic food is considered to be more nutritious and healthier than traditional food (Lin *et al.*, 2021; Wang *et al.*, 2018). Hence, organic food is beneficial to both the consumer and the environment (Boccia & Tohidi, 2024; Cachero-Martínez, 2020). Thus, digital channels should be useful tools for advertising, selling organic food, and communicating with consumers (Jayakumar, 2021). People's attitudes toward digital channels positively affect both green consumption and consumer buying behaviour (Palmieri *et al.*, 2024). It is important to underline that organic food consumption, green advertising and buying environmentally friendly products are some topics related to green consumption in the current literature (Boccia & Tohidi, 2024). Thus, ecological promotion and green marketing also influence people's buying behaviour (do Paço & Reis, 2012). Bailey *et al.* (2016) observed a positive relationship between green consumption and people's responses to green publicity. In other words, green consumption values affect people's attitudes towards a firm that communicates ecological information. In this framework, if on the one hand, consumers buy food perceived as good for human health and nature (Ali & Ali, 2020; Nguyen, 2023; Ueasangkomsate & Santiteerakul, 2016); on the other hand, digital tools could help consumer decision-making by offering better information (Hennes, 2022). However, investigating trends of digital channels used

in promoting and/or selling organic products is scarce (Novytska *et al.*, 2021). In general, the usage of digital tools in the food sector is still in its primitive steps (Stranieri *et al.*, 2021), and according to Abbate *et al.* (2023), future studies could examine the factors influencing foodstuffs' sustainable consumer behaviour and their use of digital technologies. These suggestions are even more important if we think COVID-19 has left some heritage, such as increased consumption of organic food and increased purchasing of food through digital channels (De Filippis *et al.*, 2023). In fact, in 2022, food purchases through digital channels have been 80% higher than in the pre-Covid period (ISMEA, 2022a). However, most organic food purchases (63.5%) were made in Italian supermarkets, followed by specialized shops (22.9%) (ISMEA, 2022b). In this framework and as mentioned above, the current literature about consumer behaviour related to organic food in the e-commerce environment is scarce. For these reasons, the paper proposes to answer the following study questions:

- *What factors impact the willingness to buy organic food on e-commerce platforms?*
- *Can green marketing influence the willingness to buy organic food on e-commerce platforms?*

The present study aims to fill this gap and supply practical suggestions for the e-commerce marketing of organic food.

1. Materials and methods

Data collection, the sample, and questionnaire design

A web-based survey was used to collect a sample of 490 individuals in Italy between January and October 2023. The survey was spread through websites, Instagram, Facebook, and emails to reach the largest possible audience. The screening rules were for those over 18 years old, responsible for purchasing food items in the family and being a consumer of organic food. Moreover, a test on 57 people was carried out to find any possible misinterpretations and mistakes, as well as minor changes (to eliminate possible errors), to improve the questionnaire.

The questionnaire was composed of four sections: (1) statements regarding food quality attributes to which respondents pay attention when buying food, the number of organic foods they buy; (2) items about people's approaches to green consumption and their receptivity to marketing; (3) people's approaches as for digital channels, including their willingness to buy organic food online (4) questions about people's sociodemographic features. The current literature inspired the selected items (do Paço *et al.*, 2019; Lin *et al.*, 2021; Palmieri

et al., 2021a; Palmieri *et al*., 2021b; Palmieri *et al*., 2024) and are all closed statements, using Likert scales with 10-point format (i.e., from 1. totally disagree to 10. totally agree with statements done). Table 1 shows the list of items made to assess each aspect. Also, sociodemographic questions were included in the questionnaire to allow us to describe the sample; however, given their relative irrelevance in the table description, the socioeconomic features are not shown.

Table 1 - The questionnaire

Items group	Item	References
Quality attributes of food you pay attention on a Likert scale with 10-point (1. totally disagree to 10. totally agree)	The hygienic aspects The impacts on human health The nutritional content The ethics aspects The price of food The production method of food (i.e., conventional or organic) The sensory aspects of food The safety aspect of food The seasonality of food The quality certifications (i.e., POD, IGP STG)	(Palmieri *et al*., 2021a; Palmieri *et al*., 2021b)
Attitudes towards green consumption on Likert scales with 10-point	My food preferences are influenced by my concern for our ecosystem I could define myself as an ecologically responsible consumer I am willing to consume food that is more ecologically friendly	(Palmieri *et al*., 2024)
Receptiveness to marketing on Likert scales with 10-point	I buy food whose brands pay attention to the environment The green message in advertisements drives my buying attitudes Green messages are necessary forms of advertising I usually see advertisements on social media	(do Paço *et al*., 2019; Palmieri *et al*., 2024)
Digital attitudes on Likert scales with 10-point	I think buying on e-commerce platforms is easy The access speed on e-commerce platforms is an important aspect during the purchases I think buying online is useful to have beneficial offers I think that digital technologies are useful for food traceability	(Lin *et al*., 2021)

	I think buying online is useful for reducing the environmental impact of the food supply chain
	I think that digital channels are reliable for buying a product
	I believe that digital channels' visual characteristics are important when people want to buy online
	I believe that e-commerce platforms provide sufficient information about products to buy

The factor analysis

A factor analysis was used to validate the constructs (Alshaya *et al*., 2014), reduce the observed variables, and later consider them in the econometric model. The Keiser-Meyer-Olkin (KMO) measure and Barlett's test verified both the sampling and correlation adequacy, respectively. In particular, KMO was equal to 0.89 (Field, 2013) and Barlett's test (χ^2 = 10,448; df = 139; p_value < 0.000) was significant (Arsham & Lovric, 2011), indicating that the sample and correlation matrix were appropriate for such an analysis. Kaiser's criterion established the right number of factors to consider in the analysis. Four factors had eigenvalues over Kaiser's rule of 1 and explained 83% of the original variance together. The analysis with four factors showed a good fit (CFI = 0.94; TLI = 0.92; RMSEA = 0.08) (Hu & Bentler, 1999; Medsker, 1994). Also, the convergent and discriminant validity of constructs were validated (Galletta *et al*., 2011); in fact, questions included in the same factor were highly correlated with the studied factor, while questions involved in the different factors did not correlate highly with the investigated factor.

Table 2 displays the four factors considered in the study with their Cronbach's α value. Thus, the first factor is named *Attributes* and shows a Cronbach's α of 0.90 after having deleted one item (i.e., the price of food) with factor loadings less than 0.60. The second factor is called *Green* and shows a Cronbach's α of 0.85, while the third factor is called *Ads* with a Cronbach's α of 0.80. In the end, the fourth factor is called *Digital*, with a Cronbach's α of 0.90. Later, summated scales are made from the factors and used in the regression model.

Table 2 - The factor analysis with varimax rotation

Items group	Item	Attributes	Green	Ads	Digital
Quality attributes of food (α = 0.90)	The hygienic aspects	0.88			
	The impacts on human health	0.83			
	The nutritional content	0.86			
	The ethics aspects	0.89			
	The production method of food (i.e., conventional or organic)	0.80			
	The sensory aspects of food	0.72			
	The safety aspect of food	0.70			
	The seasonality of food	0.78			
	The quality certifications (i.e., POD, IGP STG)	0.88			
Attitudes towards green consumption (α = 0.85)	My food preferences are influenced by my concern for our ecosystem		0.80		
	I could define myself as an ecologically responsible consumer		0.76		
	I am willing to consume food that is more ecologically friendly		0.79		
Receptiveness to marketing (α = 0.80)	I buy food whose brands pay attention to the environment			0.88	
	The green message in advertisements drives my buying attitudes			0.75	
	Green messages are necessary forms of advertising			0.72	
	I usually see advertisements on social media			0.89	
Digital attitudes (α = 0.90)	I think buying on e-commerce platforms is easy				0.85
	The access speed on e-commerce platforms is an important aspect during the purchases				0.90
	I think buying online is useful to have beneficial offers				0.92
	I think that digital technologies are useful for food traceability				0.95
	I think buying online is useful for reducing the environmental impact of the food supply chain				0.90
	I think that digital channels are reliable for buying a product				0.80

I believe that digital channels' visual characteristics are important when people want to buy online	0.81
I believe that e-commerce platforms provide sufficient information about products to buy	0.88

Statistical analysis

In order to investigate which factors impact the buying intent of organic food on e-commerce platforms, a Poisson Count Regression Model (PCRM) is applied (Ali & Ali, 2020). The Poisson model of a count variable assesses the log of the expected count as follows:

$$log\ \lambda_i = \alpha + \beta_i X_i + \varepsilon_i \quad (1)$$

Where:

The dependent variable is the quantity (number) of organic food purchased by the respondents. Thus, log λ_i is the expected value of the dependent variable for the i_{th} observation, β_i is parameter estimates of the people's socioeconomic characteristics, quality attributes of food, people's receptivity to marketing, and consumers' attitudes towards the digital channel, indicated by the vector X_i, α is constant, and ε_i is an error term.

In addition, the findings of a PCRM can be explained as a rate ratio. This model can be useful in calculating the expected willingness to buy organic food on e-commerce platforms by exponentiating the coefficient value of each independent variable while assuming the effect of other variables is constant. Hence, the percentage change λ_i due to each independent variable X_i can be calculated as follows:

$$\Delta\lambda_i = 100 \times (exp^{\beta} - 1) \quad (2)$$

The sociodemographic variables have been transformed into binary values to evaluate the influence of independent variables on the dependent one. In addition, the independent variables relating to food quality attributes, people's attitudes towards green consumption, their receptivity to marketing, and people's attitudes towards digital channels come from the factor analysis. It is important to underline that, as mentioned above, summated scales are made from the factors and used in the regression model. The analysis was performed using RStudio (version 2023.12.1).

2. Results

The sample profile

The sample was composed of 274 women (56%) and 216 men (44%) with a mean age of 33 years (S.D: 11 years) and an average monthly income of € 2,150. In fact, 54% earn between € 1,801 to € 2,500, followed by 10% of the respondents with a monthly income between € 2,501 to € 3,200. Most participants live in Southern Italy (65%) and have a high education level (60% of the sample), i.e. university college or postgraduate degrees. Moreover, 55% of the respondents are willing to buy organic food on e-commerce platforms, indicating that digital channels have an important position in their buying behaviours.

Regarding the questions asked (Table 3), all groups gave positive answers for all items. In fact, among quality attributes of food, the production method (average: 9.0, SD: 0.1), the existence of quality certifications (average: 9.0, SD: 0.2), the effects of food on human health (average: 7.9, SD: 1.0), hygiene (average: 7.8, SD: 1.0) and ethics aspects of food (average: 7.7, SD: 1.0) reached the highest values. However, safety, sensory aspects, nutrition, and seasonality of food are also important quality attributes for respondents. In the items group named attitudes towards green consumption, respondents declared that their food habits are influenced by apprehension for the environment (average: 7.3, SD: 1.0), are willing to consume food that is more environmentally friendly (mean: 6.9, SD: 1.7), and they could describe themselves as environmentally responsible consumers (average: 6.7, SD: 1.0). As regarding the receptivity to marketing, instead, the respondents believe that green messages are necessary forms of advertising (average: 7.3, SD: 0.7), they see advertisements on social media (average: 7.0, SD: 0.2) and buy food whose brands pay attention to the environmental issues (average: 6.7, SD: 1.0). In the end, the items group called attitudes towards digital channels reported positive values for each item. According to the respondents, purchases online are useful for having beneficial offers (average: 8.0, SD: 0.8), digital technologies are useful for food traceability (average: 7.2, SD: 1.4) and the access speed on the e-commerce platforms is an important aspect during purchase phase (average: 7.0, SD: 0.4). Moreover, people believe that buying on e-commerce platforms is easy (average: 6.9, SD: 1.0), digital channels visual characteristics are important (average: 6.8, SD: 0.3) and digital channels are reliable when they want to buy a product (average: 6.7, SD: 1.1).

Table 3 - Descriptive statistics

	Item	Mean (SD)
Quality attributes of food on a Likert scale with 10-point (1. totally disagree to 10. totally agree)	The hygienic aspects	7.8 (1.0)
	The impacts on human health	7.9 (1.0)
	The nutritional content	6.3 (1.8)
	The ethics aspects	7.7 (1.0)
	The price of food	6.0 (1.3)
	The production method of food (i.e., conventional or organic)	9.0 (0.1)
	The sensory aspects of food	6.9 (0.2)
	The safety aspect of food	7.0 (0.8)
	The seasonality of food	6.3 (1.0)
	The quality certifications (i.e., POD, IGP STG)	9.0 (0.2)
Attitudes towards green consumption on Likert scales with 10-point	My food preferences are influenced by my concern for our ecosystem	7.3 (1.0)
	I could define myself as an ecologically responsible consumer	6.7 (1.0)
	I am willing to consume food that is more ecologically friendly	6.9 (1.7)
Receptiveness to marketing on Likert scales with 10-point	I buy food whose brands pay attention to the environment	6.7 (1.0)
	The green message in advertisements drives my attitude toward the ads	6.4 (1.2)
	Green messages are necessary forms of advertising	7.3 (0.7)
	I usually see advertisements on social media	7.0 (0.2)
Attitudes towards digital channels on Likert scales with 10-point	I think buying on e-commerce platforms is easy	6.9 (1.0)
	The access speed on e-commerce platforms is an important aspect during the purchases	7.0 (0.4)
	I think buying online is useful to have beneficial offers	8.0 (0.8)
	I think that digital technologies are useful for food traceability	7.2 (1.4)
	I think buying online is useful for reducing the environmental impact of the food supply chain	6.1 (1.0)
	I think that digital channels are reliable for buying a product	6.7 (1.1)
	I believe that digital channels' visual characteristics are important when people want to buy online	6.8 (0.3)
	I believe that e-commerce platforms provide sufficient information about products to buy	6.0 (0.8)

The Poisson Count Regression Model

Table 4 shows the findings of the PCRM model. In particular, the log-likelihood estimates and information criterion report that the explanatory variables utilized for predicting the willingness to buy organic food on e-commerce platforms explain a good fit in the model (Ali & Ali, 2020). The socioeconomic features of people are important drivers that may influence consumers' willingness to buy organic food on e-commerce platforms. Findings show that gender, education level and income are the demographic features that should significantly influence the people's willingness to buy. The regression coefficient for gender is significantly negative (β: 0.454, p_value < 0.05), indicating that women are 9.1% more likely to purchase organic food online than men. The regression coefficient for education level, instead, is significantly positive (β: 0.543, p_value < 0.01) suggesting that people with graduation and above are comparatively 8.7% more likely to buy organic food online than other people. Moreover, the willingness to buy is positively affected by people's income level (β: 0.323, p_value < 0.01). The expected percentage impact underlines that people with a monthly income of € 2,500 and above are 15% more likely to buy organic food online than other people. Another factor that should likely influence the willingness to buy organic food through digital channels is the quality attributes of food. As mentioned above, among quality attributes, the production method, the quality certifications, and the effects of food on human health, hygiene, and ethical aspects of food reached the highest values declared by the respondents. Thus, food quality significantly affects consumers' willingness to buy. This result suggests that those consumers who pay attention to quality attributes of food are 26.3% more likely to purchase organic food on e-commerce platforms than other people (β: 0.392, p_value < 0.01). Similarly, the regression coefficient for people's attitudes towards green consumption is significant (β: 0.103, p_value < 0.01), indicating that people with a positive attitude towards green consumption are comparatively 18.2% more likely to buy organic food online than other consumers.

Finally, the usage of digital channels is becoming progressively relevant in emerging shopping environments. In fact, under this study, the regression coefficient for digital channels is significantly positive (β: 0.226, p_value < 0.01), demonstrating that consumers who give more importance to digital channel attributes are 25.9% more likely to purchase organic food online than other respondents.

Table 4 - Regression estimates – willingness to buy organic food online (N = 490)

Parameter	β	Std. Error	Percentage change λ_i
Gender (0 = Female; 1 = Male)	–0.454[b]	0.096	–9.1
Age (0 = < 33 years; 1 = ≥ 33 years)	–0.144	0.092	–9.4
Education (1 ≥ graduate; 0 = otherwise)	0.543 [a]	0.085	8.7
Income (1 ≥ €2,500; 0 = otherwise)	0.323[a]	0.099	15.0
Attributes	0.392[a]	0.078	26.3
Green	0.103 [a]	0.098	18.2
Ads	0.115	0.087	3.3
Digital	0.226 [a]	0.099	25.9
Goodness of fit			
Log-likelihood	–888.792		
AIC	1997.333		
AICC	1888.933		
BIC	1955.222		
CAIC	1933.115		
Likelihood Ratio Chi-Square	144.233		
df	15		
Sig.	0.000		

Note: [a] Significant at the 0.01 level; [b] Significant at the 0.05 level; [c] Significant at the 0.10 level.
The percentage change λ_i was the result of equation 2 for each parameter.

3. Discussion

A study about digital channels used in purchasing organic food found that this issue needs to be explored more in scientific literature. The present paper wants to fill this gap by identifying the basic factors behind the buying intent of organic food on fresh food e-commerce platforms. Data were collected using a web-based survey, and the sample was composed of 490 individuals in Italy, with a mean age of 33 years (SD: 11 years), a high education level, and a high income.

As mentioned above, organic food consumption is one of the topics related to green consumption in the current literature (Boccia & Tohidi, 2024), and several academics have tried to draw an identikit of the green consumer (Testa, 2020). Although in the past, demographic characteristics (gender, age, education, and income) were believed to play a significant role in shaping consumer behaviour toward organic food (Boccia & Tohidi, 2024; Ottman,

1995), nowadays it is more difficult to associate this behaviour to the only socio-demographics features of people as other factors, and trends, come into play, in conjunction with the increasing presence and advertising for ecological goods (Testa, 2020). However, sociodemographic variables also impact the usage of digital channels (Scheerder *et al.*, 2017; Zilian & Zilian, 2020). Gong *et al.* (2020) found that well-educated and high-income women and public institution personnel are willing to use new digital technologies. Similarly, in our case, well-educated and high-income women are more willing to purchase organic food on e-commerce platforms than others.

Regarding food quality attributes, they are important elements influencing the buying decisions for healthy food (Azam *et al.*, 2012; Palmieri *et al.*, 2023). Some authors (Ali & Ali, 2020; Ngigi *et al.*, 2010) found that security, nourishment, price, sensory, economic benefits, environmental friendliness, hygiene, and moral aspects affect people's willingness to buy organic products. Migliore *et al.* (2015) showed that environmental sustainability and healthiness of food are positively relevant in driving people's buying behaviours. Other authors showed the importance of environmental welfare as a driver of consumers' choice of organic food (e.g., Palmieri *et al.*, 2023; Prada *et al.*, 2016), while other researchers found that health and safety concerns are the main factors that influence people to choose organic food (e.g., Boccia *et al.*, 2024; Lamonaca *et al.*, 2022). In addition, Prada *et al.* (2016) also suggest that consumers' perception of organic food is largely affected by the presence of specific labels. Similar results were reached by Palmieri *et al.* (2023), who showed that labels can influence people's willingness to consume organic products. Recently, Migliore *et al.* (2020) suggested that attitudes towards healthy eating and the environment are positively associated with a higher willingness to pay for organic products. Similarly, in our case, quality attributes of food significantly positively affect people's willingness to buy. Those buyers who pay attention to the quality attributes of products are 26.3% more likely to purchase organic food on e-commerce platforms than other consumers.

Consumers can buy products through digital channels (Qiu *et al.*, 2024), and the evaluation of digital channel characteristics is an important aspect for clients (Pires *et al.*, 2022). Clients' perceptions of the platform significantly influence their buying behaviour (Hsu *et al.*, 2014). Moreover, online search convenience is linked to the perceived ease and speed at which people can collect product information on the web (Aw *et al.*, 2021). According to Dekimpe *et al.* (2020), digital channels are favourably perceived as a useful search method due to their economical convenience, including ease of navigation and price comparison (Aw *et al.*, 2021). Prices in real stores are generally higher than those of digital channels (Gensler *et al.*, 2017), and if such price difference is greater than expected, customers will complete

the purchase journey online (Manss *et al*., 2020). In light of the above, our findings are in line with the current literature. Consumers paying more attention to aspects of digital channels are 25.9% more likely to buy organic food on e-commerce platforms than others.

According to Lavuri *et al*. (2023), people show a positive attitude toward environmental issues (Testa, 2020). Similarly, in our case, the results show a positive ecological attitude paired with a positive willingness to buy organic food. People with a positive attitude towards green consumption are 18.2% more likely to buy organic food online than other consumers. These results were not surprising because, as mentioned above, being a consumer of organic food was one of the inclusion criteria in the study. According to Tucker *et al.* (2012), people who care about nature are receptive to ecologically themed advertising. Some people are more receptive to ecological communications than other consumers (do Paço *et al*., 2019). Thus, although general ecological attitudes influence green consumption attitudes (do Paço *et al*., 2019), in our case, we did not observe evidence to support our research hypothesis according to which green advertisements drive people's willingness to purchase organic food on e-commerce platforms. This scepticism may be due to consumers' concerns that companies are spreading false and ambiguous green information (Palmieri *et al*., 2024). In fact, according to Kwong Goh & Balaji (2016), despite the increase in green offerings, there is growing concern among people that firms are spreading fake environmental information to increase their sales and reputation. False advertising or fake claims about green products or services is called "greenwashing", a type of dishonest marketing (Blome *et al*., 2017). Thus, greenwashing is a crucial problem that can reduce customer trust and undermine the effectiveness of real environmental efforts (Meet *et al*., 2024). However, according to Forehand and Grier (2003), sceptical consumers can change their minds when presented with sufficient proof.

Conclusions

This paper focuses on the consumer perspective, investigating whether and how some factors affect willingness to buy organic food on e-commerce platforms.

Findings show that respondents' sociodemographic characteristics, education, and income influence their willingness to purchase organic food on e-commerce platforms. Moreover, other factors, such as food quality and the consumer's attitudes towards both green consumption and digital channels, drive willingness to purchase organic food online.

The practical/managerial implications of our study are relevant. First, it is important to underline that the findings should be useful in stimulating the discussion about marketing strategies that can further nurture green behaviours. As mentioned above, in Italy, most organic food purchases are not online, and these findings should be important to support insights of discussion for producers and retailers. In this respect, our results should become significant to producers and experts dealing with organic products, particularly sellers. Food producers and marketers should develop strategies based on digital channels to influence buying behaviour.

Certainly, digital and green aspects are likely to affect consumers' willingness to buy organic food online, and marketers can utilize all information in their segmentation, targeting, and positioning strategies. Second, it could be useful for public policies promoting organic food to use digital channels. In this way, consumers would have more information about the characteristics and benefits of organic products, and thus, this should affect their decision-making process. Thus, digital channels in food consumption processes and sales will require tools that are clear, recognized, and used by people. The achievement of these goals will depend not only on technological development but also on consumers' behaviours towards this new scenario.

The sample considered is not representative of the whole Italian population. Future studies should be carried out on an Italian representative sample, and in different countries. In fact, regarding the latter aspect, some factors should vary across cultures, which may imply the need for changes in the items used to keep up with the prevailing cultural differences.

Conflicts of interest

None. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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