

Article

Values and Planned Behaviour of the Romanian Organic Food Consumer

Cristina Fleşeriu ^{1,*}, Smaranda Adina Cosma ¹ and Vlad Bocăneţ ²

¹ Department of Hospitality Service, Faculty of Business, Babeş-Bolyai University, Horea Str., 7, RO-400174 Cluj-Napoca, Romania; smaranda.cosma@tbs.ubbcluj.ro

² Department of Industrial Engineering, Faculty of Machine Building, Technical University of Cluj-Napoca, Memorandumului Str., 28, RO- 400114 Cluj-Napoca, Romania; vlad.bocanet@tcm.utcluj.ro

* Correspondence: cristin.fleseriu@tbs.ubbcluj.ro

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Abstract: Romanian consumers have started to buy and consume more organic products. Their decision-making process is influenced by multiple variables. The theory of planned behaviour is widely accepted and used to predict behaviours in certain contexts, including the buying of organic food products. Other researchers have identified values that the consumer of organic products hold and that influence their buying behaviour. This study analyses the factors that have an impact on buying intention and behaviour of Romanian organic products from these two perspectives. A proposed model was designed by combining the two frameworks. It was evaluated by using structural equation modelling with the SmartPLS 3 software package (v. 3.2.7, SmartPLS GmbH, Bönningstedt, Germany, 2017). Results confirm the model proposed in the theory of planned behaviour while integrating the relationships of consumer values. Health consciousness was found to have a significant effect both on buying intention as well as on personal attitude. Food safety has a significant effect on buying intention regardless of personal attitude. Environmental concerns, social consciousness, perception of quality and lifestyle although important in personal attitude, do not affect buying intention directly.

Keywords: organic food; consumer behaviour; theory of planned behaviour; consumer values

1. Introduction

Today, agricultural production needs to be done considering food security and the protection and preservation of the environment. Food is the main source of nutrients for people while also being a basic medicine that helps maintain and regain one's health [1]. The main supplier of "living food" is organic agriculture [2].

The consumption of organic food can increase the opportunities for businesses in this field, by creating significant benefits to the economy [3,4]. Countries worldwide have seen this potential. In 2017, Romania had 258.471 hectares of organic agricultural land representing 12.63% of the country's total agricultural land [5]. In 2011, the export of organic produce reached 200 million euro and retail sales reached 41 million euro in 2016. Even if, the country has traditionally been important grower and exporter of organic crops, the internal market is just developing [5].

The demand for organic products among Romanian consumers started to trend upwards in recent years and will continue to grow [6]. The increasing demand for organic products has been impacted by many variables such as: Romania's growing economy, a higher focus on organic products among retailers and consumer awareness [6]. Demand has been rising proportionally with the level of disposable income and urbanization [6]. Imports are driven by increasing demand and the lack of variety in domestic products [6]. Whether for personal reasons or because of different influences such

as social media or friends and family, Romanian consumers' behaviour has changed and they are now buying organic products more often and prefer the companies that adopt a sustainable strategy [7]. That is the reason why the consumer buying intention and behaviour needs to be reconsidered, in order to keep up with the changing trends and consumer decision-making processes.

The consumer's buying behaviour is linked to their personal needs [8]. Marketers must identify the needs of their customers, how they acquire information about different products and how they use it to select the product they want [9]. Many studies have tried to identify the main factors that influence the decision-making process when buying organic products. Hughner et al. [10] identify five main purchase motives that influence consumer preference for organic foods: health concerns (including nutritional and safety), better taste, environmental concerns, animal welfare, concerns and support of the local economy. Chiciudean et al. [11] grouped the major motivators in health motivations, ethical concerns, taste, freshness, quality and sustainability concerns while Rana and Paul [12] analyse the highest number of consumer values such as: health consciousness and expectations of well-being, quality and safety, environmental friendliness and ethical consumerism, fashion trends and unique lifestyle and social consciousness.

In 1985, Ajzen developed the theory of planned behaviour (TPB) [13] and in a later paper [14] he developed a framework to predict behaviours in specific contexts. He found that behavioural intentions are predicted with a high degree of accuracy by three factors: personal attitude towards that behaviour, subjective norms and perceived behavioural control [14]. The theory of planned behaviour has become one of the most influential models for predicting human social behaviour [15]. There are authors that used the theory of planned behaviour for analysing the consumer behaviour of organic food products and considered it as a good starting point for modelling the consumer behaviour (Table 1).

Table 1. Literature summary on values and the theory of planned behaviour when buying organic food products.

Components	Elements	No. of Studies Found	Sources (Year)				
Values	HC	10	Tarkiainen and Sundqvist [16] (2005), Chen [17] (2007), Aertsens et al. [18] (2009) Thøgersen and Zhou [19] (2012), Irianto [20] (2015), Yadav and Pathak [21] (2016), Tuan and Vinh [22] (2016), Asif et al. [23] (2018), Singh and Verma [24] (2017), Bagher et al. [25] (2018), Wang et al. [26] (2019)				
			EC	9	Laureti and Benedetti [8] (2018), Chen [17] (2007), Thøgersen and Zhou [19] (2012), Irianto [20] (2015), Yadav and Pathak [21] (2016), Tuan and Vinh [22] (2016), Asif et al. [23] (2018), Paul et al. [27] (2015), Maichum et al. [28] (2016)		
					FS	1	Aertsens et al. [18] (2009)
					PQ	2	Chen [17] (2007), Thøgersen and Zhou [19] (2012)
					L	1	Bagher et al. [25] (2018)
					SC	0	

Table 1. Cont.

Components	Elements	No. of Studies Found	Sources (Year)
Theory of planned behaviour	PA	14	Laureti and Benedetti [8] (2018), Tarkiainen and Sundqvist [16] (2005), Chen [17] (2007), Aertsens et al. [18] (2009), Thøgersen and Zhou [19] (2012), Irianto [20] (2015), Yadav and Pathak [21] (2016), Tuan and Vinh [22] (2016), Asif et al. [23] (2018), Singh and Verma [24] (2017), Bagher et al. [25] (2018), Wang et al. [26] (2019), Paul et al. [27] (2015), Maichum et al. [28] (2016)
	SN	14	Laureti and Benedetti [8] (2018), Tarkiainen and Sundqvist [16] (2005), Chen [17] (2007), Aertsens et al. [18] (2009), Thøgersen and Zhou [19] (2012), Irianto [20] (2015), Yadav and Pathak [21] (2016), Tuan and Vinh [22] (2016), Asif et al. [23] (2018), Singh and Verma [24] (2017), Bagher et al. [25] (2018), Wang et al. [26] (2019), Paul et al. [27] (2015), Maichum et al. [28] (2016)
	PBC	11	Laureti and Benedetti [8] (2018), Chen [17] (2007), Aertsens et al. [18] (2009), Thøgersen and Zhou [19] (2012), Yadav and Pathak [21] (2016), Tuan and Vinh [22] (2016), Asif et al. [23] (2018), Bagher et al. [25] (2018), Wang et al. [26] (2019), Paul et al. [27] (2015), Maichum et al. [28] (2016)
	BI	9	Tarkiainen and Sundqvist [16] (2005), Aertsens et al. [18] (2009), Thøgersen and Zhou [19] (2012), Tuan and Vinh [22] (2016), Asif et al. [23] (2018), Singh and Verma [24] (2017), Bagher et al. [25] (2018), Paul et al. [27] (2015), Maichum et al. [28] (2016)
	BB	2	Aertsens et al. [18] (2009), Singh and Verma [24] (2017)

Note: "HC"—health consciousness, "EC"—environmental concern, "FS"—food safety, "PQ"—perception of quality, "L"—lifestyle, "SC"—Social consciousness, "PA"—personal attitude, "SN"—subjective norms, "PBC"—perceived behaviour control, "BI"—buying intention, "BB"—buying behaviour.

Most of the studies analyse the relationship between the theory of planned behaviour and some of the customer values. Health consciousness and environmental concern were analysed most frequently in combination with the TPB. Some of the researchers [24–27] propose the addition to the model of other relevant variables and use them in predicting buying intention as future research directions. Other studies have considered more consumer values but have not placed them in the context of the theory of planned behaviour. This study aims to analyse the buying intention of the Romanian organic food product consumer from while combining the theory of planned behaviour with consumer values.

2. Literature Review and Hypothesis

2.1. Research Components

2.1.1. Consumer Values

Consumers attribute value to a product by assessing its utility based on the perception of what is received and what is given and focus on the benefits or the worthiness of using a specific product [29]. Because each consumer has a different value system, their behaviour will differ depending on said values [30]. Values can influence the individual's attitude [31] and can provide a basis for consumers' evaluations and preferences for products. Some values influence the attitude toward organic food products in a positive way: health consciousness, environmental concerns, food safety, perception of quality, lifestyle and social consciousness [12]. Therefore, the current study proposes that these values may influence the consumer's attitude toward purchasing organic food products.

Health consciousness. Health consciousness is "the degree to which health concerns are integrated into a person's daily activities" [32]. Consumers that are health conscious, put an effort to lead a healthy life [33]. Health conscious consumers care about their state of wellbeing and are willing to improve their health and quality of life, by preventing ill health for example [33]. This value stems from the consumer's feeling of "freedom from chemicals" [34], but the level of individual health consciousness is closely related to how people look for and how they respond to health information [35].

Environmental concerns. Environmental consciousness was defined as "the degree of emotional involvement in environmental issues; it taps the individuals' affective response towards environmental protection" [36]. Marketers know that environmental concern has become an important factor, and it is much easier to target this type of consumer [37]. Those customers that have high environment concerns will know to ask for quality obtained in a sustainable way and will buy environmentally friendly products [38]. They are also willing to change their buying behaviour to improve the environment and pay a higher price for organic food products [26,39].

Food safety. Food safety means guarding national food supply chains from hazardous microbial and chemical agents [40]. It is considered as being a challenge because of the global dimensions of food supply chains, the need for reducing food waste and efficient use of natural resources.

Perception of quality. When defining the quality of a food product, consumers consider not just intrinsic aspects such as taste, smell and other properties, but also external factors such as origin and labelling [41,42]. Differences in quality assessment have consequences on the consumers' behaviour, beliefs and attitudes [42]. Dietary patterns, food preparation and purchase decisions are influenced by the expected quality [43].

Lifestyle. Lifestyle refers to the behaviourally oriented facets of people [44]. Each lifestyle has its particularities based on different activities, interests and opinions [45]. Aspects such as cultural affiliation, social status, family background, personality, motivation, cognition, and marketing stimuli influence lifestyle [46]. Fullerton & Dodge found that it has a significant influence on consumer behaviour [47].

Social consciousness. Consumers buy products not just for their tangible attributes, but also for their intangible ones, such as supporting local communities and preserving traditions [48]. This ethnocentric tendency, to prefer national rather than international products, also influences buying behaviour [49]. An ethnocentric attitude represents not just an obligation to buy local-made products but can also be seen as a determinant of product perceptions [50].

2.1.2. Personal Attitude

Attitude is "a psychological path of evaluating a specific object with favor or disfavor" [51]. *Personal attitude* reflects individual preferences to perform or not a behaviour regarding general consumption or of a specific product; the more positive the attitude, the stronger the intention to express the behaviour [52]. Attitudes have two components: cognitive (thinking) and affective (feeling) [53,54].

The interaction between them influences attitude and choice [55]. Some attitudes toward different objects may rely more on affect while for others more on cognition [54]. When beliefs and feelings about an object have an opposite valence, feelings tend to predominate [56]. Also, for affective judgments, the response times are significantly shorter compared with cognitive ones, meaning that attitudes underlined by affective aspects are more accessible in the memory [54].

2.1.3. Subjective Norms

Subjective norms also called social norms are perceived social pressure by individuals to engage or not to engage in a specific behaviour [14]. Huda et al. defines subjective norms “as one’s perceptions or assumptions about others’ expectations of certain behaviours that one will or will not perform” [57]. There are two types of subjective norms: injunctive and descriptive; the theory of planned behaviour focuses on the role of injunctive norms [58]. These are normative beliefs and expectations that the groups or important references (family members, friends, co-workers, children etc.) have on one person [14]. Subjective norms are considered as being the impacts of external factors on customer intention [59] and can predict the consumer behaviour, when an individual’s actions influence another consumer’s behaviour [60]. People follow social norms not just because they fear social pressure, but because they give information about what behaviour is most appropriate or beneficial [61].

2.1.4. Perceived Behavioural Control

Perceived behavioural control (PBC) relates to the individual perception of those factors that might foster or hinder the expression of a behaviour [62]. Ajzen mentions two aspects: the control which people have over the behaviour and the way a person feels confident about performing behaviour [14]. Perceived behavioural control is linked to the level of control that a person perceives over one’s behaviour [17]. A person that has a higher perceived personal control will have stronger behavioural intention to buy a product [14]. Different factors such as time, money, and skills influence perceived behavioural control [14]. People with higher behavioural control have a stronger intention towards certain behaviours [21].

2.1.5. Buying Intention and Buying Behaviour

According to Keller [63], the consumers’ buying decision is very complex and the buying behaviour is a key point for consumers when considering and evaluating a product. This behaviour is influenced by psychological motivations [53]. When predicting the buying process, the buying intention is a significant factor [64]. When consumers decide to purchase the product, they will be driven by their intention.

Buying intention is defined as a conscious plan of action taken into consideration by consumers when they will buy [65] and requires behaviour and motivation to use it [66]. Intention is accepted as the best available predictor of human behaviour, being the pre-step that guides clients to actual purchase actions [67]. If consumers want to buy a product, they will pay more than those who have no intention to buy [68]. Also, buying intention can be influenced by price, quality and value perception [69].

2.2. Relationship Between Research Concepts

2.2.1. Influence of Consumer Values on Personal Attitude and Buying Intention

Personal attitude can contain a sum of different beliefs such as taste, healthiness and perceived benefits related to the environment [70]. When buying food products, one significant motivator is health [71]. Organic farming respects “the laws of nature” and “the laws of life”, as being high-quality products, “100% natural” without chemical synthesis as opposed to conventional agriculture [72], that can harm human health and the environment [73]. According to Paul and Rana [74], the more cognizant consumers are about their health the more positive the attitude towards purchase intention

of organic products. Romanian consumers consider health as a major motivator for purchasing organic food products [75]. Romanians' attitudes towards organic food are generally positive and influence the consumer behaviour when taking the decision for purchasing food [75]. As a result, the authors proposed the following hypotheses:

Hypothesis 1a. *Health consciousness has a significant effect on personal attitude.*

Hypothesis 1b. *Health consciousness has a significant effect on buying intention.*

If health consciousness is considered as being an egoistic motivator (benefits the individual or his/her family), the *environment friendliness and the ethical consumerism* are more altruistic (benefits society rather than the individual). But even altruistic considerations have often a personal influence [76] and most consumers do not want to give up their personal benefit in order to contribute to the benefit of the community [71]. Consumer attitude has evolved due to ethical concerns towards the environment [77]. Environmental protection is a motivator that has led to ethical consumerism [78]. Practicing ethical consumerism inspires consumers to buy "green" products in order to fulfil their ethical responsibility [79]. Based on these assumptions, the authors propose the following hypotheses:

Hypothesis 2a. *Environmental concerns have a significant effect on personal attitude.*

Hypothesis 2b. *Environmental concerns have a significant effect on buying intention.*

Food safety can also influence the consume of organic products [80–82]. It is actively promoted by governments, healthcare industry professionals, researchers etc. [83,84]. In this regard, organic products do not contain pesticides and other crop-preserving chemicals [85]. Organic food products are regarded as being safer to eat, affecting the personal attitude towards them. Following these aspects, the hypotheses have been formulated:

Hypothesis 3a. *Food safety has a significant effect on personal attitude.*

Hypothesis 3b. *Food safety has a significant effect on buying intention.*

Consumers consider that the authenticity of organic products depends on its natural taste and product *quality* [86], labelling and a separate exposition spot in the points of purchase [87]. Salleh et al. found that the product's quality and taste motivate consumers to purchase organic products [88]. Consumers are willing to pay more for an expected extra quality in product and process [89]. Considering this, the authors propose the following hypotheses:

Hypothesis 4a. *Perception of quality has a significant effect on personal attitude.*

Hypothesis 4b. *Perception of quality has a significant effect on buying intention.*

Consuming organic products, that are expensive and exclusive has become the latest trend in the elite society of some countries. It shows that consumers with greater income have a higher purchasing power and a more luxurious *lifestyle* [12]. Canavari indicates that certain foods are consumed as a status symbol [90]. Starting from these assumptions, the authors propose the following hypotheses:

Hypothesis 5a. *Lifestyle has a significant effect on personal attitude.*

Hypothesis 5b. *Lifestyle has a significant effect on buying intention.*

Buying and consuming organic products can also be fuelled by a desire to support and strengthen the local economy and community, including greater self-reliance and independence from global corporations and supermarkets. *Social consciousness* can encourage the consumers to purchase organic products, in order to set an example and inspire others to change their consumption habits for the societal benefit [90]. Social influence can determine people to change one's emotions, opinions and behaviour [91]. Because of these aspects, the authors propose the following hypotheses:

Hypothesis 6a. *Social consciousness has a significant effect on personal attitude.*

Hypothesis 6b. *Social consciousness has a significant effect on buying intention.*

2.2.2. Relationship between Theory of Planned Behaviour Model Components

When purchasing organic food, attitude shapes the behaviour by directly influencing the buying intention [92]. Conner and Sparks [93] discovered that food consumption is influenced by affect, while Dean et al. [94] found that both affect and cognition predict purchase intention. This means that people evaluate behaviour using not just costs and benefits, but also the positive and negative feelings generated by that behaviour [18]. In the organic food sector, studies made in different cultures and for different product categories underline the existence of a significant relationship between consumers' attitudes and purchase intentions [16]. When purchasing organic food, affect and cognition are combined in a compensatory way [94]. It means that the perceived costs of buying organic products may be offset by the positive feelings that it produces [18]. Because personal attitude has an influence on buying organic products, the following hypothesis can be drawn.

Hypothesis 7. *Personal attitude has a significant effect on buying intention.*

Several studies underline that subjective norms are an important determinant of buying intention for green products [27] and organic food [95]. In the case of the organic products, Zagata says that family and friends have the biggest social influence [96], while Yadav and Pathak [21] found that subjective norms do not have any significant effect on the intention to buy organic products. Armitage and Conner [52] argued that this component might be the weakest amongst the model's constructs. Based on the discussion above, the following hypothesis can be formulated:

Hypothesis 8. *Subjective norms have a significant effect on buying intention.*

For organic products, high price and low availability are considered barriers [97], but researchers have different perspectives regarding buying intention; Dowd and Burke [98] found an association between the two, while Yazdanpanah and Forouzani [99] found no significant correlation between them. Olsen [100] pointed out that consumer food purchase is influenced by self-efficacy and convenience/availability. Researchers have concluded that there is a positive relationship between purchase intention and the ability of the individual to control their behaviour [101]. Taken into consideration the fact that perceived behavioural control influences the buying behaviour the authors propose the following hypothesis:

Hypothesis 9. *Perceived behavioural control has a significant effect on buying intention.*

Intention can determine behaviour with a high accuracy [14]. Intention has been assumed to be a strong behavioural predictor, but there are situations when this does not apply. This effect is defined as the intention-behaviour gap: when intention may not necessarily lead to the desired behaviour [102]. Still, there are researchers [103] that found a high degree of correlation between intention and behaviour. When analysing the buying behaviour for organic products, researchers have identified a significantly

positive relationship between buying intention and buying behaviour [104]. Because buying intention can influence buying behaviour, the following hypothesis can be drawn:

Hypothesis 10. *Buying intention has a significant effect on buying behaviour.*

2.3. Conceptual Model

In this study the authors proposed, based on these hypotheses, the conceptual model presented in Figure 1. The study starts with the theory of planned behaviour and, as a result of the literature review, the authors include the six main values that affect both personal attitude and buying intention.

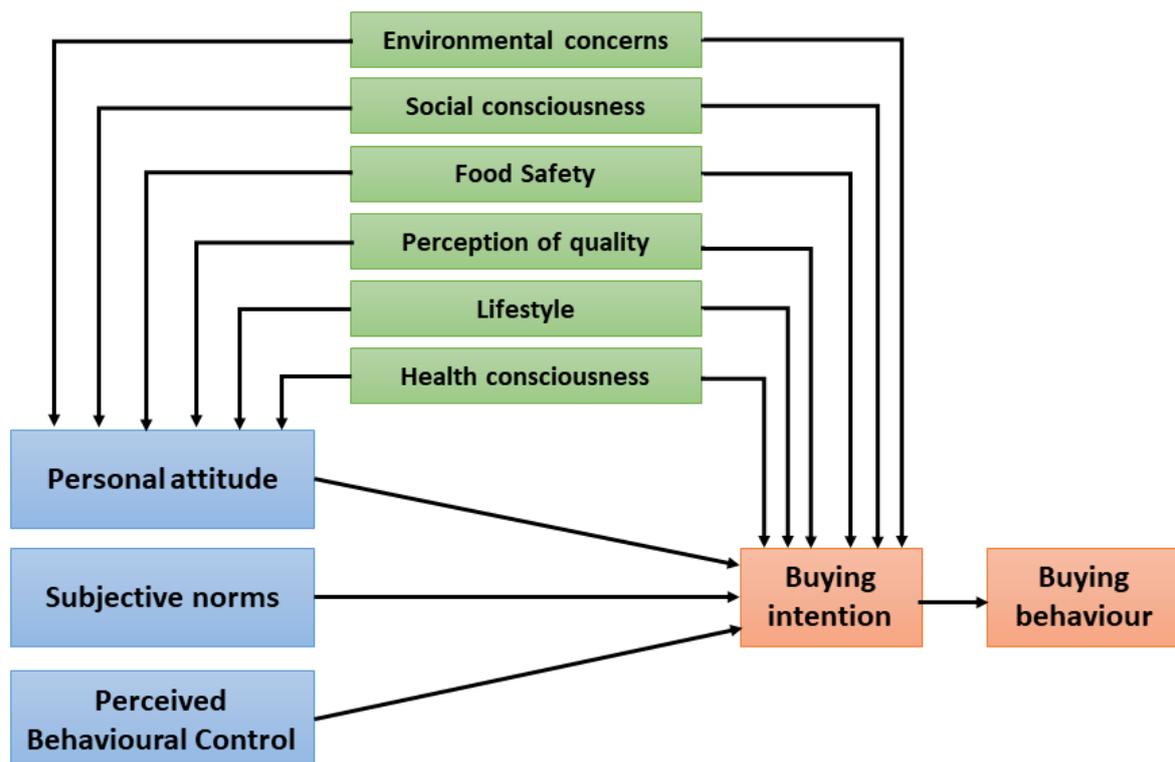


Figure 1. The proposed conceptual framework.

3. Materials and Methods

3.1. Sampling Method and Data Collection

A descriptive and causal research was performed to identify what are the significant factors that influence the Romanian consumer behaviour when purchasing organic fruits and vegetables. Data were acquired online by means of an online questionnaire disseminated through the social platform Facebook between September and December 2019. People interested in organic products were identified by their membership of closed groups relating to the subject. The non-probabilistic method of snowball sampling was used because access to the closed groups was not easily attainable. Each respondent was asked to forward the questionnaire to other interested parties, gaining in this way access to active organic product consumers. Anticipating a moderate effect size (0.3) with a desired statistical power level of 0.9 and a p-value of 0.05, the sample calculation resulted in a minimum sample size of 248, in order to detect the desired effect [105]. A total of 330 respondents filled in the questionnaires. The data were checked for unengaged responses by looking at the standard deviation for each question set, resulting in 325 valid responses.

3.2. Scale Development

The questionnaire contains items relating to personal attitude, subjective norms perceived behavioural control, consumer buying intention and behaviour as well as consumer values (environmental concerns, social consciousness, food safety, perception of quality, lifestyle and health consciousness). The items were adapted from research on the theory of planned behaviour and consumer values (see Table 2). The scale items were validated in previous research papers by different authors. Although the authors assumed that the groups contained only organic product consumers, a selection variable was added in order to check this assumption. The item asked respondents to indicate how often they buy organic products. Persons who said that they have never bought organic products were considered non-consumers. A seven-point Likert scale (1-total disagreement, 7-total agreement) was used to quantify the level of agreement with statements representing all measured items. One item (“Organic products have a longer shelf life”) was reverse coded in order to align with the direction of the other items. Socio-demographic information such as: gender, age, monthly income, studies, marital status, number of children and children’s age was also collected. The draft questionnaire was pre-tested on a focus group of 5 organic product consumers and based on the respondents’ comments and suggestions, it was adapted in terms of language and translation.

Table 2. Questionnaire items and supporting literature.

Latent Construct	Items	Supporting literature
Health consciousness	I am concerned about the type and amount of nutrition in the food that I consume daily	Voon, Ngui, & Agrawal (2011) [106], Singh & Verma (2017) [24]
	Organic food is good for one’s health	
Food Safety Concern	I am willing to shop often in order to eat as healthy as possible	Michaelidou & Hassan (2008) [107]
	Nowadays most foods contain residues from chemical sprays and fertilizers	
Quality	I’m very concerned about the amount of artificial additives and preservatives in food	Torjusen et al. (2001) [108]
	The quality and safety of food nowadays concerns me	
	Organic food is safe to eat	
	Organic products are fresh	
	Organic products will have a good taste	
	Organic products don’t contain chemicals	
Environmental Concern	Organic products are nutritious	Roberts & Bacon (1997) [109]
	Organic products have a longer shelf life	
	Organic products are perishable	
	Organic products have a pleasant smell	
Social consciousness	The balance of nature is very delicate and can be easily upset.	Berlin et al. (2009) [110]
	Human beings are severely abusing the environment. Humans must maintain the balance with nature in order to survive.	
	Human interferences with nature often produce disastrous consequences.	
Personal attitude	By buying organic products one encourages the local economy	Asif et al. (2018) [23]
	By buying organic products one supports the development of the local economy	
	I think that purchasing organic food is a good idea.	
	I think that purchasing organic food is important.	
	I think that purchasing organic food is beneficial.	
	I think that purchasing organic food is wise.	
	I think that purchasing organic food is favorable.	

Table 2. Cont.

Latent Construct	Items	Supporting literature
Subjective Norm	My family thinks that I should buy organic products rather than non-organic ones.	Asif et al. (2018) [23]
	Most people I value would buy organic products rather than non-organic products.	
	People I value think I should buy organic products.	
Lifestyle	Most friends whose opinions regarding diet are important to me, think that I should buy organic products.	Bai et al. (2019) [111]
	Purchasing organic products makes me feel superior.	
Buying Intention	I intend to consume organic products in the future	Singh & Verma (2017) [24]
	I am always interested in buying more organic food for the family's needs	
Actual Buying Behaviour	I always intend to look for organic foods, although outside the city	Singh & Verma (2017) [24]
	I have been a regular buyer of organic foods	
	I still buy organic food even though conventional alternatives are on sale	
Perceived Behavioural Control	I never mind paying premium price for organic products	Asif et al. (2018) [23]
	If I wanted to, I could buy organic products instead of conventional ones.	
	I think it is easy for me to buy organic products.	
	It is mostly up to me whether to buy organic products.	

3.3. Model Specification and Data Analysis

Because of the number of variables considered and the complexity posed by the relationship between them, the authors used Structural Equation Modelling with Partial Least Squares (SEM-PLS) as the modelling method. It is widely used in many social science disciplines including marketing and it allows researchers to “estimate complex models with many constructs, indicator variables, and structural paths without imposing distributional assumptions on the data” [112]. It can be used to evaluate the measurement of latent variables and the relationship between them [113]. The model was estimated and evaluated by using the SmartPLS 3 software package. The sample was first analysed from a socio-demographic standpoint by using descriptive statistics.

4. Results

The socio-demographic structure of the sample is presented in Table 3. Three percent (10) of respondents said that they have never bought organic products. By removing them it was ensured that the results apply to consumers of organic products and that they were not skewed by the responses of people that never bought organic products. Most respondents have ages between 24 and 38 years (58%), women (76%), with a university education (57%) earning between 460 and 670 Euro (27%) that are married or in a relationship (64%) with no children (65%).

Table 3. Socio-demographic structure of the sample.

Category	Items	Frequency	%
Age categories	<24	75	24%
	24–38	184	58%
	39–58	50	16%
	59–74	5	2%
	>74	1	0%
Sex	Female	240	76%
	Male	74	23%
	No response	1	0%
Studies	Highschool	34	11%
	Post-high-school	3	1%
	University	179	57%
	Post-university	99	31%
Income *	<250 Euro	25	8%
	250–460 Euro	57	18%
	460–670 Euro	86	27%
	670–880 Euro	75	24%
	> 880 Euro	72	23%
Marital status	Single	113	36%
	In a relationship/Married	202	64%
Number of children	0	206	65%
	1	72	23%
	2	35	11%
	≥3	2	1%
Children ages	Not applicable	204	65%
	Younger than 7 years	61	19%
	Both below and above 7 years	5	2%
	Older than 7 years	45	14%
Grand Total		315	100%

*1 Euro = 4.75 Lei / Average monthly net wage in January 2019 was 2936 Lei (618 Euro) [103].

4.1. Model Assessment

The model was then assessed in two stages: the assessment of the measurement model and then of the structural model. The measurement model was assessed for internal consistency and reliability. Table 4 shows the values for the outer loading, composite reliability (CR) and average variance extracted (AVE). ad a collinearity problem with ENV_3, and was removed as it had the highest value.

Table 4. Measurement model assessment.

Variables and indicators	FL	VIF	CR	AVE
<i>Health consciousness (HC)</i>			0.885	0.72
I am concerned about the type and amount of nutrition in the food that I consume daily	0.802	1.597		
Organic food is good for one's health	0.866	1.812		
I am willing to shop often in order to eat as healthy as possible	0.876	1.927		
<i>Food Safety Concern (FS)</i>			0.915	0.73
Nowadays most foods contain residues from chemical sprays and fertilizers	0.788	1.909		
I'm very concerned about the amount of artificial additives and preservatives in food	0.873	3.161		
The quality and safety of food nowadays concerns me	0.916	3.803		
Organic food is safe to eat	0.837	1.796		

Table 4. Cont.

Variables and indicators	FL	VIF	CR	AVE
<i>Quality (Q)</i>			0.871	0.585
Organic products are fresh	0.858	2.991		
Organic products will have a good taste	0.878	3.53		
Organic products don't contain chemicals	0.856	2.649		
Organic products are nutritious	0.876	2.955		
Organic products have a longer shelf life *	-0.399	1.167		
Organic products are perishable *	0.576	1.445		
Organic products have a pleasant smell	0.774	2.049		
<i>Environmental Concern (EC)</i>			0.961	0.859
The balance of nature is very delicate and can be easily upset.	0.891	2.847		
Human beings are severely abusing the environment. **	0.943	5.624		
Humans must maintain the balance with nature in order to survive.	0.944	5.072		
Human interferences with nature often produce disastrous consequences.	0.929	4.695		
<i>Social consciousness (SC)</i>			0.988	0.977
By buying organic products one encourages the local economy **	0.988	10.973		
By buying organic products one supports the development of the local economy	0.988	10.973		
<i>Personal attitude (PA)</i>			0.961	0.83
I think that purchasing organic food is a good idea.	0.9	3.768		
I think that purchasing organic food is important.	0.924	4.868		
I think that purchasing organic food is beneficial **	0.938	5.43		
I think that purchasing organic food is wise.	0.91	4.252		
I think that purchasing organic food is favourable.	0.882	3.531		
<i>Subjective Norms (SN)</i>			0.93	0.77
My family thinks that I should buy organic products rather than non-organic ones.	0.818	1.858		
Most people I value would buy organic products rather than non-organic products.	0.892	3.024		
People I value think I should buy organic products.	0.914	3.704		
Most friends whose opinions regarding diet are important to me, think that I should buy organic products.	0.882	2.745		
<i>Lifestyle (LS)</i>			1	1
Purchasing organic products makes me feel superior.	1	1		
<i>Buying Intention (BI)</i>			0.925	0.804
I intend to consume organic products in the future	0.91	3.343		
I am always interested in buying more organic food for the family's needs	0.947	4.266		
I always intend to look for organic foods, although outside the city	0.829	1.924		
<i>Actual Buying Behaviour (BB)</i>			0.919	0.792
I have been a regular buyer of organic foods	0.907	2.808		
I still buy organic food even though conventional alternatives are on sale	0.932	3.359		
I never mind paying premium price for organic products	0.828	1.85		
<i>Perceived Behavioral Control (PBC)</i>			0.901	0.752
If I wanted to, I could buy organic products instead of conventional ones.	0.896	2.321		
I think it is easy for me to buy organic products.	0.869	2.115		
It is mostly up to me whether or not to buy organic products.	0.836	1.692		

* eliminated because of low FL; ** eliminated because of high VIF; FL—Factor Loadings, CR—Composite Reliability, AVE—Average Variance Extracted, VIF—Variance Inflation Factor.

Except for two items, all the outer loadings were above the 0.7 threshold. The two items regarding shelf life and perishability that were below the threshold value were excluded. The AVE and CR scores were above the cut-off point of 0.50 and 0.70 respectively, indicating that the measurement model was internally consistent [112]. Collinearity was assessed by using the variance inflation factor (VIF). As items 3 and 4 in the personal attitude construct exceeded the threshold value of 5, the one with the highest values (item *PERS_ATT_3*) was eliminated. Both items of the *social consciousness* construct had very high collinearity meaning that they were measuring the same construct. One was eliminated (*SOC_1*). Variable *ENV_2* h.

The discriminant validity was assessed by using the heterotrait-monotrait ratio (HTMT) of correlation (see Table 5) as per [114]. All HTMT ratios were below 0.85, indicating that the measurement model has discriminant validity. The Cronbach's alpha values for all constructs are above 0.70 confirming the internal consistency of the outer model.

Table 5. Heterotrait-monotrait ratio for the analysed sample.

	BI	BB	EC	FS	HC	LS	PBC	PQ	PA	SC
BB	0.809									
EC	0.486	0.396								
FS	0.656	0.505	0.762							
HC	0.799	0.609	0.621	0.83						
LS	0.126	0.104	0.064	0.044	0.069					
PBC	0.587	0.713	0.512	0.499	0.574	0.062				
Q	0.618	0.513	0.629	0.755	0.729	0.051	0.556			
PA	0.757	0.515	0.515	0.6	0.649	0.139	0.481	0.707		
SC	0.498	0.378	0.589	0.632	0.544	0.006	0.46	0.658	0.573	
SN	0.731	0.603	0.343	0.48	0.656	0.194	0.49	0.578	0.633	0.456

BI—Buying Intention, BB—Buying behaviour, EC—Environmental Concerns, FS—Food Safety, HC—Health Consciousness, LS—Lifestyle, PBC—Perceived Behavioural Control, PQ—Perception of quality, PA—Personal Attitude, SN—Social Consciousness, SN—Subjective Norms.

4.2. Structural Model Assessment

After the measurement model's reliability and validity were confirmed, the structural model was evaluated. The bootstrapping method was run using 5000 samples and bias-corrected and accelerated (BCa) confidence intervals with two-tailed significance at a 0.05 level. Pairwise deletion was used for handling missing values in order to preserve as much information as possible. There were no collinearity issues in the structural model as resulting from the analysis of the VIF values. The path relationships, coefficients and significance are presented in Table 6.

The adjusted coefficient of determination (R^2_{adj}), or the variance explained by the endogenous constructs for the buying intention is moderately high ($R^2_{adj} = 0.668$). This means that more than 66% of the variance in buying intention can be explained by PBC, health benefits, personal attitude, subjective norms and customer values. The variance in buying behaviour is explained by buying intention in a proportion of almost 50% ($R^2_{adj} = 0.493$). Consumer values explain 52% of variance in the personal attitude ($R^2_{adj} = 0.524$). When considering the effect size (f^2) we see that personal attitude has a medium effect on buying intention ($f^2 = 0.159$), while buying intention has a high effect on buying behaviour ($f^2 = 0.980$). The other variables have a low or no effect (Table 6)

Table 6. Path relationships, coefficients values with their significance levels and confidence intervals.

Path	β	Bias Corrected CI	P Values	Effect Size	Hypothesis Confirmed
Buying Intention -> Buying behaviour (H10)	0.698	[0.625–0.747]	<0.001	0.98	Yes
Environmental Concerns -> Buying Intention (H2b)	0.012	[−0.084–0.122]	0.820	0.001	No
Environmental Concerns -> Personal Attitude (H2a)	0.126	[0.007–0.261]	0.047	0.017	Yes
Food Safety -> Buying Intention (H3b)	0.131	[−0.002–0.248]	0.041	0.017	Yes
Food Safety -> Personal Attitude (H3a)	0.002	[−0.129–0.15]	0.974	0	No
Health Consciousness -> Buying Intention (H1b)	0.325	[0.193–0.451]	<0.001	0.084	Yes
Health Consciousness -> Personal Attitude (H1a)	0.178	[0.067–0.303]	0.003	0.03	Yes
Lifestyle -> Buying Intention (H5b)	0.043	[−0.027–0.117]	0.261	0	No
Lifestyle -> Personal Attitude (H5a)	0.108	[0.027–0.167]	0.003	0.024	Yes
Perceived Behavioural Control -> Buying Intention (H9)	0.138	[0.036–0.226]	0.006	0.038	Yes
Perception of quality -> Buying Intention (H4b)	0.098	[−0.018–0.208]	0.109	0.002	No
Perception of quality -> Personal Attitude (H4a)	0.407	[0.286–0.512]	<0.001	0.147	Yes
Personal Attitude -> Buying Intention (H7)	0.345	[0.225–0.449]	<0.001	0.159	Yes
Social Consciousness -> Buying Intention (H6b)	−0.004	[−0.105–0.099]	0.941	0.004	No
Social Consciousness -> Personal Attitude (H6a)	0.138	[0.042–0.243]	0.010	0.022	Yes
Subjective Norms -> Buying Intention (H8)	0.244	[0.15–0.347]	<0.001	0.099	Yes

5. Discussion and Conclusions

The model's explanatory power was assessed by means of the R^2 measure [115]. The R^2 values for the endogenous constructs in the model ranged from 49% to 67% showing reasonably high magnitudes [116] and indicating good explanatory power.

In the framework of the theory of planned behaviour, the strong relationship between buying intention and buying behaviour present in other studies [16,24] has also been found in this sample, confirming hypothesis H10. The relationship is statistically significant and has a strong effect size.

Buying intention is significantly influenced by personal attitude, subjective norms and perceived behavioural control confirming hypotheses H7, H8 and H9. Because the relationship between buying intention and buying behaviour is so strong, buying behaviour is also significantly influenced by these three factors indirectly, through buying intention. These significant relationships make up the theory of planned behaviour that was confirmed in other studies on organic food consumers [16,18,23,24,27,28].

Health consciousness is one of the major elements in the consumer's personal attitude [16,24,26,117]. Our study found that it significantly affects personal attitude as well as buying intention directly (H1a, H1b) that was also found in other research papers, [18,23]. Environmental concerns, although they influence personal attitude (also found in [28]), don't have a direct influence on buying intention, confirming hypothesis H2a but not H2b. Other studies [21,23] found that there is a significant relationship between environmental concerns and buying intention. It seems that, in this sample, there is not enough evidence to suggest that environmental concerns, although an important part of the consumer's attitude, doesn't have a significant direct effect on their buying intention.

Food safety on the other hand has been found to have a significant relationship with buying intention as was also found in [118], confirming H3b but not on personal attitude, not confirming H3a.

Although personal attitude was found to mediate the relationship between food safety and buying intention [117], this relationship is not supported in this sample.

The perception of quality [17], lifestyle [119] and social consciousness [120] on the other hand were found to have a significant effect on personal attitude (confirming H4a, H5a and H6a), but not on buying intention (not confirming H4b, H5b and H6b). Other studies [25,42,90,121] have found that the perception of quality, lifestyle and social consciousness of consumers significantly influence buying intention, but it was not confirmed in this study. This indicates that, even though these factors affect the personal attitude of the organic product consumer, they do not directly influence buying intention.

This research focused on the buying intention of the Romanian organic food consumer. Two frameworks have been chosen that have been found extensively in the research literature: consumer values (health consciousness, environmental concerns, food safety, perception of quality, lifestyle and social consciousness) and the theory of planned behaviour. Although they have been widely studied, the authors did not find any study that would combine the two frameworks together, considering so many consumer values in one model. The theory of planned behaviour states that buying behaviour is significantly influenced by buying intention and buying intention is influenced by personal attitude, social norms and perceived behavioural control. As found in other studies [23,24,28,70], buying intention is affected by a combination of factors that transcend nationality. The theory was supported fully or partially by studies done in Thailand [28], Italy, Finland, UK [70], Turkey, Pakistan, Iran [23], India [24], Tanzania and Kenya [26] and other countries. At the same time, many studies have analysed the relationship between consumer values and personal attitude [16,17,24–26,28,117] as well as directly with buying intention [18,21,23,25,42,90].

5.1. Implications

The findings of this study can be translated into some important insight that can be used in the marketing of organic food products. Firstly, it confirms the theory of planned behaviour for this sample of Romanian organic product consumers.

Although environmental concerns, the social impact of organic farming and the consumer's lifestyle are important in defining their personal attitude towards organic products, they do not have a significant direct effect on their buying intention and behaviour respectively. The health and safety aspects of organic products have a significant impact on the buying intention of the consumer while at the same time affecting their personal attitude. Companies, both national and international, can use this information and adapt their marketing strategies, especially promotion and selling, underlying the peoples' benefits when buying organic food products [122]. They could create campaigns to explain the differences between organic and non-organic food products. Sharing information about benefits can generate a positive attitude and increase sales. Another strategy could be to involve personalities, public figures and influencers for word-of-mouth marketing.

Governmental bodies could benefit from understanding the consumer behaviour and create campaigns that increase the awareness on the benefits of using organic food products.

5.2. Limitations

Although the study revealed some important findings, researchers should interpret them keeping in mind its limitations. This study used the non-probabilistic methodology of snowball sampling that has its limitations. Even though it helped the authors reach particular online groups of persons interested in organic products, it is a convenience sampling method meaning that it often results in selection bias and may present internal and external validity limitations [123,124]. Although the results cannot be extrapolated to a larger population, they give important insights in the behaviour of the organic product consumer. As this is merely an exploratory study, a future random sample research might minimize bias and increase the validity of the proposed model.

Another limitation is the unbalance between male and female respondents. In this study most respondents were female. A future study might try to balance the female-to-male-ratio and observe if the model still holds true.

The current study provides a picture of the organic food consumer at this point in time. The consumer behaviour changes over time in trend with new technologies, environmental policies or economical states. A longitudinal study could give a more stable overview of the factors affecting the consumer's behaviour.

In this research the authors focused on the consumers of organic food products. Important information might be revealed by evaluating the behaviour of non-consumers as well. Such a study might provide insight into methods of transforming such non-consumers into consumers.

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