

Consumer behaviour on organic food: detailed questionnaire as research instrument

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Abstract. The aim of the paper is to provide a research instrument, a very detailed questionnaire, created with the purpose to investigate consumers' behaviour on organic food. The questionnaire has a very comprehensive structure in order to create a complex image of consumers and to generate information useful to promote organic agriculture and consumption of organic food products. At the same time, due to its structure, this research instrument provides the highest chances to be suitable for many situations and target consumers. Within this questionnaire, we make the difference between products that are "organic with organic label" and those "organic without organic label". This is an original feature of this research instrument, which differentiate it and the research that used it from other studies on consumer behaviour of organic food. The main aspects investigated in the questionnaire are: buying, information, eating habits, interests and preferences, consumption motivation, perceptions for/on organic food and organic producers, information sources, budget spent on organic food, price perception, consumers perception on social pressure related to their organic food consumption, consumers' degree of environmental concern, demographic and other general information on consumers.

Key Words: organic food, questionnaire, research instrument, consumer, behaviour, perceptions, opinions.

Introduction. Organic agriculture and organic food draw increasing attention, interest and investments because of the benefits they generate. They contribute to environment protection, to preservation of breeds and varieties, of traditional activities, to human health protection and many others. Limits of organic agriculture, such as reducer productivity, lower financial efficiency compared to conventional agriculture, and disadvantages of organic foods, such as higher prices, more limited availability, are challenges that stimulate research and other efforts to find solutions to overcome barriers. Within the numerous topics studied in relation to organic agriculture, products, food (from cultivation patterns, soil, fertilisers, food quality to financial and market analysis or to institutional or political analysis) research of consumer behaviour has a high share of interest because of the important role that consumers plays in the food chain (Balan & Toma 2012; Basarir & Gheblawi 2012; Chiciudean et al 2012; Croitoru et al 2012; Gros et al 2010; Haghiri et al 2009; İlyasoğlu et al 2010; Janssen & Hamm 2012; Kahl et al 2012; Magkos et al 2006; Nastase et al 2011; Orboi et al 2009; Petrescu et al 2013; Petrescu-Mag et al 2010; Purcărea et al 2013; Răbonțu et al 2010; Răducuță et al 2012; Shafiea & Rennieb 2012; Shaheen & El-Nakhlawy 2013; Tuomisto et al 2012; Thomas & Gunden 2012; Verain et al 2012).

Between 1999-2010, globally, organic agricultural land increased from 11 million hectares to 37 million hectares (Willer 2011; Răducuță & Doroftei 2012). At EU level, efforts are made to connect organic agriculture measures with those related to agriculture in general, rural development, environment (Daugbjerg & Sønderkov 2012; Lynch et al 2012; Petrescu-Mag et al 2011ab; Petrescu-Mag et al 2009; Silva et al 2013). In Romania, interest in organic sector in has grown as the number of operators registered, production, sales etc show it (Constantin 2012; Ion 2012; Ichim 2012; Petrescu-Mag 2012; Stoenescu 2012). Environmental conditions in Romania are favourable to organic agriculture: existence of traditional activities, breeds, varieties, of

pedological and climatic conditions, decrease of industrial pollution during the last two decades, due to reduction of industrial production, consumers' interest in healthy food, consumers' appreciation of natural products. However, in Romania, expansion of organic agriculture and of consumption of organic food is restraint by factors such as: decrease of agricultural labour force, its poor endowment with technical equipment, low effective management and marketing practices (Petrescu et al 2010; Petrescu-Mag & Petrescu 2010). Some of them, like the ones related to market – increase of consumers' awareness of organic food existence, quality, benefits, change of consumers' perceptions on organic food, change of eating habits etc – can be overcome through consumer behaviour research and appropriate use of its results. This is one of the premises that led to the design on the questionnaire presented here.

Material and Method. There are numerous studies on consumer behaviour related to organic food, but their results are usually limited to a certain geographical area (where the study was carried out) and cannot be extrapolated to other regions because consumers are influenced by many factors, such as cultural, economical, social, which are different from one region to another. Therefore, each population needs to be studied taking into consideration its own characteristics. However, in creating the research instrument, experience and results from other research can be helpful.

For the design of our questionnaire, we made an extended literature review, both Romanian and from other countries, and tried to make a very comprehensive instrument, based on particular features of Romanian consumers and of useful consumer insights from other studies.

The questionnaire begins with an explanation of the three types of foods investigated in the questionnaire – organic with organic label, organic without organic label, conventional – without giving the definition of organic food. This definition is required in the second question in order to see what organic food means for the consumers. We make the difference between *organic with organic label* and *organic without organic label* because Romanian consumers often confuse the two categories (pre-test of questionnaire demonstrated this aspect). Along the entire questionnaire, this differentiation is present and represents an original aspect that allows this research instrument to be innovative and to bring new information on consumer behaviour compared to studies.

We investigate current consumers of organic food from Romanian market. The first 2 questions filter consumers in order to eliminate those who do not eat organic food.

Questions 3-5 investigate the buying and information habits.

Questions 6-29, 35 investigate interest and preference, buying and eating habits, consumption motivation, perceptions for/on organic food, organic producers.

Questions 30-32 aim to find out which are the most trustable information sources for consumers, how well informed they perceived themselves.

Questions 33-34 are related to budget spent on organic food and price perception.

Questions 36-37 study consumers' perception on social pressure related to their organic food consumption.

Questions 38-41 characterize consumers' degree of environmental concern.

Question 42 is a complex question, divided in 16 sub-questions, and provides demographic and other general information on consumers.

Results and Discussion. After taking into account all the issues previously mentioned, the questionnaire received the structure presented hereinafter.

Dear Sir/Madam,

We kindly ask you to fill in this questionnaire, where we investigate the consumption of ecological food. The answers are anonymous and will be used for research purpose. There are no wrong or correct answers. We just want them to be true.

We refer to two categories of ecological products (also called organic or bio:

(1) those that do not have the organic label, but which you consider ecological (natural, from the country side, from your garden) and

(2) those that have on there package the organic label, which are organically certified, have the organic (bio, ecological) logo.

Circle or underline your answer or fill in the dotted line or empty spaces. Please, answer the questions in the order they are written and do not go back to a previous question. It is compulsory to follow this requirement in order to ensure the validity of the research. Thank you for your collaboration.

1. Have you eaten organic (also called ecologic or bio) food during the last 12 month?

a) Yes b) No (End of questionnaire. Thank you)

2. What is organic food, in your opinion?

a) I haven't heard about it/I don't know (End of questionnaire. Thank you)

b) Organic food is:

3. Remember the way you decided to buy food during the last year. Write down the criteria that usually had the strongest influence on you when you decided to buy one product or another (you can inspire from the list below).

Place 1: Place 2: Place 3: Place 4:

Place 5: Place 6: Place 7: Place 8:

(Examples: Notoriety of the producer, Package design, Brand, How the products looks like, Freshness, Lack of Es, Lack of GMOs, Content of vitamins and minerals, Quantity of the amounts of protein, carbohydrate and fats, Quality/Price ratio, Country of origin, Promotions, Price, Novelty, Impact production process has on the natural environment, The fact that is produces in Romania, Ingredients, Taste, Degree of processing, Need to buy a certain product, Friends' opinions and advice, Your personal opinions and experience, Validity, Availability (store/selling place is convenient for you), Position of shelves, Craving, desire to eat healthy, Quantity of calories, Producer's Activities of Social Responsibility etc)

4. How often do you read the label/information on the package for the food you buy:

a) never b) 1-25% of cases c) 26-75% of cases d) 76-100% of cases

5. What information do you read most often on the label/package?

.....

6. How much do you care if the food you eat is organic or conventional? (conventional food = food that contains preservatives, colouring, flavouring chemicals, food additives, pesticides, chemical fertilizers etc):

a) not at all/very little b) a little c) average concern d) much e) every much

7. How often do you try to buy organic food instead of conventional one:

a) never/very rarely b) rarely c) about half of the cases d) often e) very often

8. How do you usually get to eat organic food?

8.1. Food that you consider organic (obtained at home, with no chemicals), but **without organic label**, certificate, logo:

a) unintentionally b) I am looking for it especially c) others give it to me d) I do not use it

8.2. Food **with organic label**, certificate, logo:

- a) unintentionally b) I am looking for it especially c) others give it to me d) I do not use it

9.1. If you have to choose between the following **organic** products, which one you prefer:

- a) made locally b) made in other areas of Romania c) it doesn't matter

9.2. If you have to choose between the following **organic** products, which one you prefer:

- a) made in Romania b) made in other EU countries c) it doesn't matter

9.3. If you have to choose between the following **organic** products, which one you prefer:

- a) made in EU b) made in the rest of the world c) it doesn't matter

9.4. If you have to choose between the following **organic** products, which one you prefer:

- a) organic, **without** organic label b) organic, **with** organic label c) it doesn't matter

9.5. If you have to choose between the following **organic** products, which one you prefer:

- a) unprocessed (fresh fruits etc) b) processed (bread etc) c) it doesn't matter

10. Which of the following organic food have you eaten in the last 12 months? (mark with an X next to the ones you have eaten, in each column: column for "*without* organic label" and for column "*with* organic label"):

	Organic, <i>without</i> organic label	Organic, <i>with</i> organic label		Organic, <i>without</i> organic label	Organic, <i>with</i> organic label
Bread			Pastries, biscuits		
Meat and meat products			Preserves, jams, sauces		
Fish			Other sweets		
Milk and dairy			Coffee		
Eggs			Tea, herbal tea		
Honey and other bee products			Cocoa, chicory, spices		
Dried fruits, vegetables			Alcohol (wine, bier etc)		
Cereals, seeds			Cooked or half cooked food		
Fresh vegetables			Gluten-free products		
Fresh fruits			Products for children:		
Juice			Other. Mention them:		

11. Have your actions changed in the present compared to the past? Fill in next to each category with the appropriate degree of change: 1 = very little, 2 = little, 3 = average, 4 = much, 5 = very much

- a) you replace fried food (in oil / butter/ animal fat) with boiled / steamed / grilled food:
- b) you eat more cooked vegetables:
- c) you eat more fresh food:
- d) you eat less sugar:
- e) you eat less animal fats:
- f) you eat smaller daily portions:
- g) you eat less salt
- h) you eat less meat:
- i) you use fewer household chemicals (insecticides, disinfectants, deodorants)
- j) you spend more time outdoors:

12. Indicate the frequency of purchase (procurement) of organic products from the following sources. Mark with X the ones you most often use in *each* column (both for column "*without* organic label" and for column "*with* organic label").

	Organic, <i>without</i> organic label	Organic, <i>with</i> organic label
Supermarkets		
Dedicated stores, Natural products stores, Plafar, pharmacy		
Specialized fairs		
Markets		
Directly from producer's farm / orchard / shop / from friends		
On-line stores		
From my family's own production		
I receive them as a gift		
Other source. Mention it:		

13. How do you make the difference between organic products and conventional ones when you buy them, what criteria do you use (in stores / markets)?

Criterion 1: Criterion 2: Criterion 3:

14. Who consume most of the organic products in your family? (mark with an X in the box with your response in each column)

	Organic, <i>without</i> organic label	Organic, <i>with</i> organic label
Me		
Children		
Other adults in the family		
The whole family		
We give them away as a gift to others		
We sell them or process them to sell them		
Other option. Mention it:		

15. What percentages of the total amount of food you consumed during the last 12 months were: (attention: $a + b + c = 100\%$)

a) organic *without* organic label:%

b) organic *with* organic label:%

c) conventional:%

d) I do not know

16. What percentages of the total amount of **organic** food products you consumed during the last 12 months were produced in Romania and how much abroad: (attention: $a + b = 100\%$)

16.1. Within organic foods *without* organic label (obtained at home, at country side etc):

a).....% were produced in Romania and b).....% abroad ($a+b=100\%$);

c) I don't know

16.2. Within organic food *with* organic label:

a).....% were produced in Romania and b).....% abroad ($a+b=100\%$);

c) I don't know

17. For how long have you been eating:

- organic food *without* organic label:

- organic food *with* organic label:

[We remind the there categories of food products we analyse here: (1) organic food products without organic label, but which you consider organic (natural, home produced, from the country side, from your garden etc); (2) organic food with organic label, certificate, logo; (3) conventional products = food that contains preservatives, colouring, flavouring chemicals, food additives, pesticides, chemical fertilizers etc]

18. How often have you bought / obtained organic food in the last 12 months? (put an X in the box with your answer)

	daily almost daily	or 1 time per month to weekly	1 time every 2-3 months	1 time every 2-3 months or more rare	never
<i>without</i> organic label					
<i>with</i> organic label					

19. How often have you eaten organic food in the last 12 months? (put an X in the box with your answer)

	daily almost daily	or 1 time per month to weekly	1 time every 2-3 months	1 time every 2-3 months or more rare	never
<i>without</i> organic label					
<i>with</i> organic label					

20. What are the most important reasons why you eat organic food instead of the conventional one?

First place: Second place: Third place: Fourth place:

21. What are the most important reasons that prevent you from eating more organic food?

First place: Second place: Third place: Fourth place:

22. What made you start eating organic food?

- *Without* organic label: because

- *With* organic label: because

23. How do you think it will be the amount of organic food you will consume in the next 12 months? Why? Mark the option that corresponds to your situation and write the explanation next to it.

- *Without* organic label:

a) approximately the same, because

b) bigger, because

c) smaller, because

d) I don't know

- *With* organic label:

a) approximately the same, because

b) bigger, because

c) smaller, because

d) I don't know

24. In your opinion, who should eat organic food and why they should eat it?

Category of persons	Reasons they should eat organic food		
a)	1.	2.	3.
b)	1.	2.	3.
c)	1.	2.	3.

25. If organic foods had the same price as conventional ones, if they were always available in stores and if there were only taste / quality differences that you know, what would be the share of organic food products in your diet ?

- a).....% organic *without* organic label
- b).....% organic *with* organic label
- c)....% conventional (attention: a+b+c=100%!) ;
- d) I don't know

26. Do you think that one of the following three categories helps you more than others in maintaining your health: organic *without* organic label, organic *with* organic label, conventional? (circle your answer – a) or b) or c) – and fill in where applicable)

- a) Yes, some are more helpful than others. The healthiest are: then follows: and then follows:
- b) There are no differences
- c) I don't know

[We remind the there categories of food products we analyse here: (1) organic food products without organic label, but which you consider organic (natural, home produced, from the country side, from your garden etc); (2) organic food with organic label, certificate, logo; (3) conventional products = food that contains preservatives, colouring, flavouring chemicals, food additives, pesticides, chemical fertilizers etc]

27. How do you think that is, generally, the variety of organic products available in your area?

- For organic food products *without* organic label:
 - a) very reduced b) reduced c) average d) high e) very high f) I don't know
- For organic food products *with* organic label:
 - a) very reduced b) reduced c) average d) high e) very high f) I don't know

28. In your opinion, how many people buy organic food in Romania?

- organic food *without* organic label:
 - a) very high number b) many c) average number d) a few
 - e) very reduced number f) I don't know
- organic food *with* organic label:
 - a) very high number b) many c) average number d) a few
 - e) very reduced number f) I don't know

29. Write as a percentage how close or distant you think the categories below are compared to what you consider to be 100% natural, truly organic. We refer to the Romanian market. Write the rate on the dotted line, between 0 and 100%.

Organic food <i>with</i> organic label, certificate	0 ----- 100%
The products from your own family production / from friends	0 ----- 100%
Products without organic label, commercialised by sellers/producers from country side	0 ----- 100%
Traditional products	0 ----- 100%
Products from the mountain area	0 ----- 100%
Products in the stores or markets about which the seller tells you that are organic, natural, without pesticides, additives, etc., but without a label or certificate saying this	0 ----- 100%
Conventional products	0 ----- 100%

30. Who do you think can give you the most accurate information about qualities of organic products? (Give places from 1 to 8; you cannot repeat one place! Write 1 for the most trustable source, 2 for the next one, ..., 8 for the one you trust the least, among those mentioned).

Friends / relatives who have used them: Place	Authorities: Place.....
Sellers: Place	Producers: Place.....
Doctors: Place	Your personal experience: Place....
Magazines/newspapers/TV/radio: Place	Other source:.....: Place.....

31. How informed do you consider yourself to be on organic products?

- compared to most of Romanians:

- a) not at all informed b) little informed c) average d) fairly informed
 e) very well informed f) I don't know

- compared to your own information needs:

- a) not at all informed b) little informed c) average d) fairly informed
 e) very well informed f) I don't know

32. How much are you willing to pay extra on organic foods compared to conventional foods?

- for organic foods *without* organic label:

- a) nothing b) 1-10% more c) 11-50% more d) 51-100% more e) more than 100% compared to the price of conventional foods

- for organic foods *with* organic label:

- a) nothing b) 1-10% more c) 11-50% more d) 51-100% more e) more than 100% compared to the price of conventional foods

33. How much did you spend on average per month on organic food, during the last 12 months?

	0 lei because I have received it	0 lei because I don't eat it	1- 50 lei	51-200 lei	201-500 lei	501-1000 lei	Over 1000 lei
<i>without</i> organic label							
<i>with</i> organic label							

34. In your opinion, how is, in general, the price of organic food products in Romania?

	Very expensive	Expensive	Fair price	Cheap	Very cheap	I don't know
Compared to their quality						
Compared to the work needed to produce them						
Compared to your budget						
Compared to conventional food						

35. How much do you agree / disagree with the following statements? (put an X in the box that fits your opinion):

(-2= total disagreement, -1= mostly disagreement, 0=either agreement, or disagreement or "I don't know", +1=mostly agreement, +2 = total agreement)	-2	-1	0	+1	+2
If a large number of people buy organic products, it means the products are of high quality					
If a large number of people buy organic products, I will buy, too					
Most of those who consume organic products are more concerned about their health than the rest of the people					
Most of those who consume organic products have high income					
Most people consume organic food because it is a fashion to do it					
Most people consume organic food because they are cheap					
Most people consume organic food simply because they like its taste					
Most people consume organic food unintentionally					
Most people consume organic food because of curiosity					
Organic food helps to protect the natural environment more than conventional food					
Organic food helps to preserve traditional products and activities more					

than the conventional food					
Organic food helps farmers get higher incomes than conventional food					
Animal organic foods comes from animals that had better life that in the case of conventional ones					
Organic food is healthier than conventional food					
Organic food is more tasty than conventional food					
Organic foods sold on the market contain no preservatives, artificial colourings, Es, are not genetically modified					
Organic food is just another fad					
There are many products on the Romanian market on which label not all the ingredients are listed					
In Romania, harmful ingredients are used to produce or process food, therefore the law should be modified to eliminate the most dangerous ones.					
The law should be modified to compel manufacturers to offer organic varieties of all kinds of basic foods					
In Romania, it is very hard to find food without chemicals					
Most Romanian consumers do not seek food without chemicals					
A product which is organically certified and intensively promoted is better than one un-promoted					
An organic product that is on the market for many years has better quality					
Information listed on the label of organically certified products are always true					
Producers of organically certified products must do <u>more</u> than the law requires them for environmental protection (they must use cleaner technologies, plant trees, clean waters, etc.)					
Producers of organically certified products must do <u>more</u> than the law requires them for consumer protection and welfare (to inform them about the role of organic products for health, to organize tastings of organic products etc.)					

36. What do you think people believe about your consumption of organic food:

36.1 Your colleagues, friends:

- a) they mostly disagree b) they disagree a little c) they do not care d) they approve me a little e) they approve me on great extent

36.2 Your family / those living with you:

- a) they mostly disagree b) they disagree a little c) they do not care d) they approve me a little e) they approve me on great extent

36.3 People in the store / on the street / etc:

- a) they mostly disagree b) they disagree a little c) they do not care d) they approve me a little e) they approve me on great extent

37. How are you influenced in consuming organic food by others' opinion (indicated above) about your consumption of organic food?

37.1 Your colleagues, friends:

- a) It discourages me a lot b) It discourages me a little c) It has no influence d) It encourages me a little e) It encourages me a lot

37.2 Your family / those living with you:

- a) It discourages me a lot b) It discourages me a little c) It has no influence d) It encourages me a little e) It encourages me a lot

37.3 People in the store / on the street / etc:

- a) It discourages me a lot b) It discourages me a little c) It has no influence d) It encourages me a little e) It encourages me a lot

38. What other organic/ecological products do you use:

	No	Yes. Because:
Electric/hybrid car		
Energy (solar etc)		
Light balls, A, A+ class domestic appliances		
Recycled paper		
Textiles		

	No	Yes. Because:
Cosmetics		
Detergent		
Services		
Other:		
None		

39. Which of the following situation describes your behaviour:

	0-5% of cases	6-50% of cases	50-75% of cases	76-100% of cases
I bring used batteries at special collection points				
I select at least 1 category of garbage (paper, glass, plastic, etc.) in my household and take it to dedicated collection points				
When I go outdoors (in the woods etc) I <u>leave</u> the garbage (food, packaging, etc.) at the camping/resting place				
I flow used/fried oil in the kitchen sink or toilet				
I also do the following activities, beneficial for natural environment: 1) 2) 3)				

40. In your opinion, does humanity face natural environment problems which are very threatening?

- a) Yes. Problems such as:
 b) No c) I don't know

41. In your opinion, consequences of current pattern of economic activity on the natural environment, if current trends persist, are:

41.1 at global level:

- a) no at all serious b) low gravity c) moderate gravity d) high gravity
 e) catastrophic f) I don't know / don't have information about it

41.2 in Romania:

- a) no at all serious b) low gravity c) moderate gravity d) high gravity
 e) catastrophic f) I don't know / don't have information about it

42. General information:

- Your age: a)18-25 b)26-35 c)36-45 d)46-60 e)>60

- Gender: F M

- How much do you buy of the total purchases made by your family?

- a) almost all b) more than half c) half d) less than half e) Almost nothing

- How many months per year did you spent (on average) in the country side you were a child, adolescent and very young (before the age of 20 years)?

- Do you grow/raise your own fruits, vegetables, animals for food or do you have someone to do it for you?

a) No

b) Yes. Do you use pesticides, chemical fertilizers, concentrates etc? b1) No b2) Yes

- Do you suffer from a disease that imposes you some food restrictions?

a) No b) Yes

- Are currently on a diet? a) No b) Yes

- Do you practice, constantly, any type of sport or exercise or movement (at least 3 hours / week)?

a) No

- b) Yes. Which one? How many hours per week?
- Do you have health problems? a) No b) Yes.
 - Do you smoke? a) No b) Yes.
 - Do you buy food or cook for children in your family?
 - a) yes, they have: a1)0-5 years a2)6-16 years a3)>16 years b) no
 - Your family members number (those who consume and spend from the same, common, budget) is: 1 2 3 4 5 >5
 - Your highest education level (graduated or ongoing) is:
 - a) elementary school b) high school/ professional school c) graduated/college
 - d) post graduated
 - Your average **monthly** income level per family **member** is:
 - a) below 500 lei b) 501-1000 c) 1001-2000 c) 2001-3000
 - d) 3001-4000 e) over 4000
 - You labour market status is:
 - a) employee b) entrepreneur / self employed / worker in your own household
 - c) housewife d) unemployed e) student f) other:
 - Environment where you spend most of your time in a year is: a) rural b) urban

If you want to find out the final results of the research, please write down your email address, so we can inform you:

Thank you for your time, patience and information provided!

The Research Team

Conclusions. The questionnaire incorporates specific features of Romanian consumers and also addresses a large variety of aspects related to consumers preferences, opinions, habits, in order to be adjustable to many situations and target consumers, from Romania or other regions. The questionnaire was implemented in 2013 on Romanian consumers of organic food. The questionnaire introduces the difference between products that are "organic with organic label" and those "organic without organic label", which brings originality to the research instrument and the research. The questionnaire has the capacity to provide a very comprehensive image of Romanian consumers of organic food products, due to its structure and its fine adjustment to the characteristics of Romanian consumers and market. Thus, the research that used the questionnaire provides useful information for the promotion of organic products and organic agriculture.

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