

## Organic products: consumption habits and perceptions

<sup>1</sup>Dacina-Crina Petrescu, <sup>2</sup>Ioan G. Oroian, <sup>2</sup>Marian Proorocu, <sup>2</sup>Tania Mihăiescu, <sup>2</sup>Laura Paulette, <sup>2</sup>Dan Vârban

<sup>1</sup> Babes-Bolyai University, Faculty of Business, Cluj-Napoca, Romania;

<sup>2</sup> University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania.  
Corresponding author: D.-C. Petrescu, crina.petrescu@tbs.ubbcluj.ro

**Abstract.** The objective of the research was to determine consumption habits and perceptions on ecological food products. The main results are: 85% of the respondents perceive the dominant characteristic organic food "healthy"; more than half of the respondents (60%) states to have no or little trust in sellers claims about a product being eco in the absence of organic label; half of the respondents declare they spent less than 50 lei (0-11.11 Euro) on organic food and 40% of the respondents declare they spent between 51-200 lei (11.12-44.44 Euro) on organic food; almost 20% of the sample bought organic cereals, fruits, vegetables and dairy and almost 10% bought biscuits, meat, oil during the last year; 80% of the respondents are willing to pay for 1 liter of organic milk up to 44% more compared to supermarket price and 80% more compared to small farmers' price.

**Key Words:** organic food consumption, dominant characteristic, trust, expenditure, purchased bio food categories, willingness to pay.

**Rezumat.** Obiectivul cercetării a fost de a determina obiceiurile de consum și percepțiile consumatorilor privind produsele alimentare ecologice. Principalele rezultate sunt: 85% dintre respondenți percep produsele alimentare organice ca având drept caracteristică dominantă "sănătos"; mai mult de jumătate dintre respondenți (60%) afirmă că nu au încredere deloc sau puțin în vânzătorii care susține despre un produs că este ecologic, în absența etichetei ecologice; jumătate dintre respondenți declară că au cheltuit mai puțin de 50 de lei (0-11.11 euro) pe produse alimentare ecologice și 40% dintre respondenți declară că a cheltuit între 51-200 de lei (11.12-44.44 euro) pe produse alimentare ecologice; aproape 20% din eșantion a cumpărat cereale ecologice, fructe, legume și lactate și aproape 10% au cumpărat biscuiți, carne, ulei pe parcursul ultimului an; 80% dintre respondenți sunt dispuși să plătească pentru 1 litru de lapte ecologic cu până la 44% mai mult față de prețul de supermarket și până la 80% mai mult față de prețul micilor fermieri.













**Cuvinte cheie:** consum de alimente ecologice, caracteristică dominantă, încredere, cheltuieli, alimente bio cumpărate, dispoziție de a plăti.

**Introduction.** Agriculture has an important share in Romanian economy and organic agriculture has an raising trend during the last decade (Petrescu et al 2010; Petrescu-Mag & Petrescu 2010). The interest in organic agriculture is visible both from producers and from consumers side and is reflected by increasing values of: number of certified operators, production value, area of cultivated land, spending per person, organic share of total food market etc, as reflected in Table 1.

Consequently, the need and interest to understand the market in general, the consumers, in particular, grew, for generating knowledge to address economical, social, environmental concerns (Pele et al 2008; Ogunniyi et al 2011; Barbir & Prats Ferret 2011; Neagu 2012; Petrescu 2008, 2013). Following this trend, our study targeted some of consumers' habits and perception related to organic food.

Table 1

## Evolution of organic agriculture indicators

	2006	2007	2008	2009	2010	2011	
No of registered operators in organic farming	3409	3834	4191	3228	3155	10253	
Area of cultivated land in organic farming, crops on arable land (ha)	45585	65084	86417	109968	147971	158758	
Area of cultivated land in organic farming, hay crops (ha)	51178	57575	45986	39215	31567	89452	
Area of cultivated land in organic farming, permanent crops orchards and vineyards (ha)	294	953	1518	1869	3093	4582	
Collecting spontaneous flora (ha)	38683	58703	81244	88846	77262	47081	
Imports (mill. Euro)	2.28	4.15	6.92	8.31	31.16	35.31	
Exports (mill. Euro)	44.31	74.08	89.31	93.47	133.62	177.93	
Domestic market (estimated) (mill. Euro)	4.15	4.15	6.92	9.69	11.77	18.00	
Total domestic consumption (Imports + Domestic market) (mill. Euro)	6.44	8.31	13.85	18.00	42.93	53.31	
Population (million)	21.5	21.5	21.5	21.5	21.5	21.5	
Spending per person (Euro)	0.30	0.38	0.64	0.84	1.99	2.48	
Organic Share of Total Food Market (%)				0.21	0.29	0.33	

Source: Stoenescu, 2012, p. 2-3.

**Material and Method.** The results presented in this paper were obtained through an investigation on a 40 person sample (with the exception of the last question, tested on a 200 person sample), aged over 18, urban residents, from Cluj-Napoca city (Romania), in 2012. The questionnaires were sent online, self-administered by the respondents and sent back to the researcher. The objective of the research was to determine consumption habits and perceptions on ecological food products. The investigation through self-administered questionnaire was preferred because of its fast implementation, lower costs than interviewing, reduced interviewer bias, potential anonymity of the respondent, which can lead to more truthful or valid responses, convenience for the respondents on answering it (Eiselen & Uys, p. 2). However, due to the small size of the sample, the results have limited representativeness and should be used as pre-test results for a broader study. The terms organic, ecological (eco) and bio in relation to food are used here as synonyms.

**Results and Discussion.** The first question aimed to determine the main characteristics that consumers associate with organic food: "In your opinion, which of the following words describes best the organic food: a) tasty b) healthy c) expensive d) with bad taste e) difficult to find?" (see Figure 1).

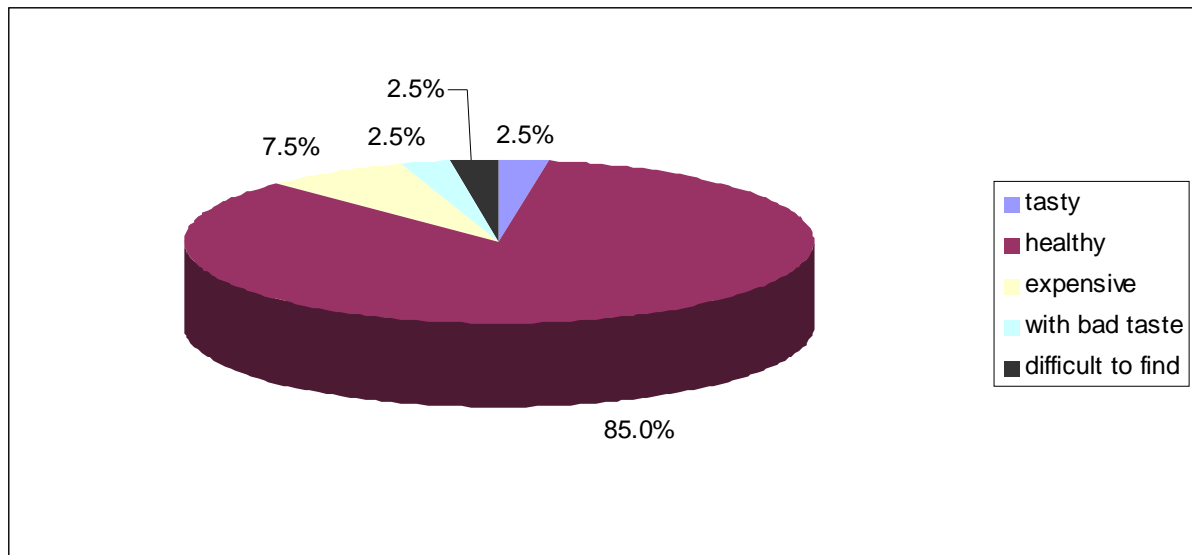


Figure 1. Dominant characteristic of organic food in consumers' mind.

The dominant characteristic of organic food is "healthy": 85% of the respondents perceives it like this. This is a positive fact because health concern is an important factor determining the buying decision, and thus it can stimulate bio food consumption. However, 7.5% sees organic food as primarily "expensive", which is usually a barrier for the acquisition. It is a correct perception because most of organic products are significantly more expensive than conventional ones. The first mentioned characteristic can also be one of the dominant factors influencing the buying decision. This is why, for the 7.5% above mentioned, price might more important than health concern. The rejection effect of this perception can be diminished by various means: changing the hierarchy of the characteristics in consumers' mind – trying to put on the top those that stimulate consumption, such as long term health, environment protection etc; changing the quality-price ratio evaluation – promoting the higher price as fair for the quality offered; changing the evaluation of the price, making it seem lower through comparison with other higher prices or expenses (Festinger & Carlsmith 1959; Kowol p. 4). Consumers that see the organic food as being first of all "tasty" (2.5%) have higher chances to acquire it than the other 2.5% who perceive it as being "with bad taste", because taste is, naturally, an important criterion for in selecting food products (Shaw Hughner et al 2007, p. 8). The 2.5% who put "difficult to find" as main feature of organic food are consumers that, most probably, had difficulties in finding organic food; this means that have already tried to purchased it, didn't find it or find it with a high effort, which generated an intense negative experience as a result of the ratio high interest/need/desire and high level of dissatisfaction. The domination of "healthy" attribute revealed by our study is congruent with the findings of other research. An OECD study on 10000 respondents from 10 OECD countries (Australia, Canada, Czech Republic, France, Italy, Korea, Mexico, the Netherlands, Norway and Sweden), in 2008, found that organic products are still perceived as healthier than conventional ones: almost 50% of the sample ranks "better for health" attribute first (Boccaletti 2009, p. 7).

The second question inquired the trust level in seller recommendations. "How much do you trust the seller (in Romania) when he/she tells you in the market/store that the products are organic (but they do not have the eco label): a) not at all b) a little c) average trust d) high trust e) absolute trust" (see Figure 2).

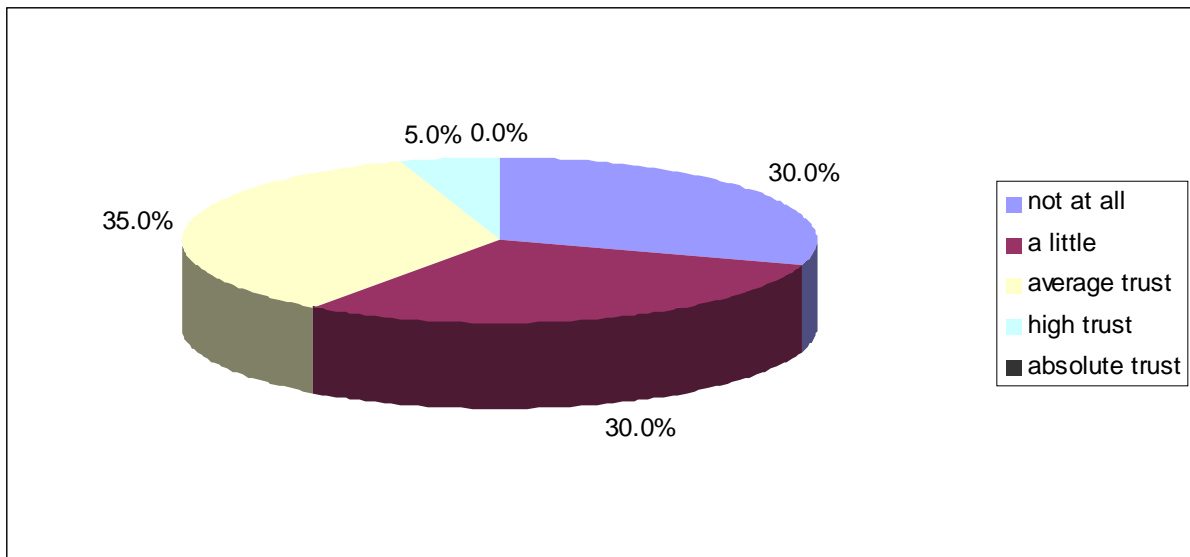


Figure 2. Level of trust in seller recommendations in the absence of organic label.

In the case of organic products, consumers should be aware of the organic label appearance and meaning and should not rely only on seller's affirmations. False affirmations of sellers can damage the trust in quality of bio food and can harm customers that need it for its intrinsic characteristics (due to health reasons, for instance). More than half of the respondents (60%) has no or little trust in sellers' claims, which is a positive fact because they are aware or infer that another fact, more objective, more reliable, is a better indicator of the organic category – a label, a dedicated selling place etc. More than one third (35%) has average trust in sellers' claims, which can mean either they consider sellers quite reliable information sources (professional, concerned with consumers' wellbeing, honest etc) or they are not very concerned with the ecological products and choose the most convenient position (the average one) and do not invest a lot of effort in finding out which is the correct criterion for classification or in establishing the reliability of the sellers. A small percentage (5%) has high trust in sellers' claims, either because they consider themselves well informed about the sellers and trust them (they might live in small community where people know and trust each other or they might have had previous positive experiences in relation to the information received from the sellers) or they consider the feature "bio" a common one, about which a seller would have no reason to lie about.

Through the third question we wanted to discover how much people spend monthly on organic food: "How much did you spend on organic food in a month, in average, during the last 12 months: a) 0-50 lei (0-11.11 Euro<sup>1</sup>) b) 51-200 lei (11.12-44.44 Euro) c) 201-500 lei (44.45-111.11 Euro) d) > 500 lei (>111.11 Euro)" (see Figure 3, Table 2).

<sup>1</sup> For 2012, in this study, we used the following exchange rate: 1 Euro = 4.5 lei.

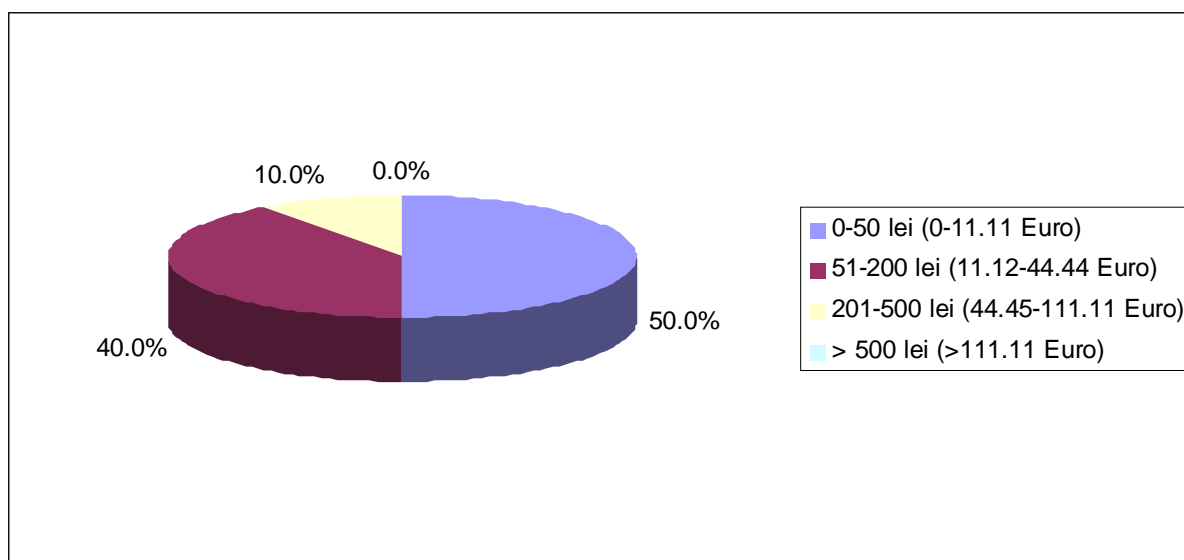


Figure 3. Amount spent monthly on organic food.

Table 2

Amount spent monthly on organic food and its share in food expenditures					
Share of sample	50%		40%	10%	0%
	8%	42%			
Amount spend monthly on eco food	0 lei	<50 lei	51-200 lei	201-500 lei	>500 lei
Share of eco food expenditure in food budget	0%	<5.7%	5.8%-22.9%	23%-57.3%	>57.3%

The average household food expenditure in the first semester of 2012, in urban areas, in Romania was 671 lei/month<sup>2</sup> (149 Euro). Taking into account that Cluj-Napoca has many supermarkets and 2 large malls and that the prices in Cluj-Napoca are higher than the country average, we estimate this figure increased with 30%: 872 lei (194 Euro). Half of the respondents declare they spent less than 50 lei on organic food, which would be less than 5.7% of food expenditures; the 8% who didn't buy any eco food, according to question four, are included here. 40% of the respondents declare they spent between 51-200 lei, which would be between 5.8%-22.9% of their food budget on organic food. 10% of the respondents declare they spent between 201-500 lei on organic food, which approximates 23%-57.3% of their food budget and nobody declare to spend more than 500 lei. These figures must be understood as consumers' perceptions on their own expenditures and not as objective expenditures. A simple comparison between consumers' estimations and organic food offer in Cluj-Napoca suggest a high gap between the two groups – a much lower real level of bio food consumption. There is only one specialized shop, a limited shelf space and product range in the hypermarkets and supermarkets, and many locations such as pharmacies stores herbal or traditional products that sell randomly bio products (food, cosmetics, etc) among a majority of other non-bio products. The over-evaluation may be unintentional, due to the difficulty to estimate the value or to confusions in the organic concept (which is often confused for

<sup>2</sup> In Quarter I 2012, the total expenditure of the population was roughly of 2245 lei per month per household (780 lei per person) and was 90.5% of the total income. Consumption expenditure was 70.9% of the total expenditure and agro-food products and soft drinks were 40.8% of the consumption expenditure. The monthly average food consumption expenditure was 15 lei greater with urban households than with rural ones (The National Institute of Statistics (a), 2012). This results in 684 lei/month for food in urban households. In Quarter II 2012, the total expenditure of the population was roughly of 2155 lei per month per household (749 lei per person) and was 89.9% of the total income. Consumption expenditure was 72.8% of the total expenditure and agro-food products and soft drinks were 43.1% of the consumption expenditure. The monthly average food consumption expenditure was 16 lei greater with urban households than with rural ones (The National Institute of Statistics (b), 2012). This results in 657 lei/month for food in urban households. The expenditures of the two quarters generate an average of 671 lei/month.

traditional, home made, small farm made, sold by small farmers etc), or intentional, derived from the desire to impress the others, to hide some fact etc.

The fourth question targeted the types of organic food acquired: “What type of organic food did you buy during the last 12 months: a) none b) biscuits c) cereals d) fruits e) vegetables dairy e) meat f) oil i) other; which?... ?” (see Figure 4).

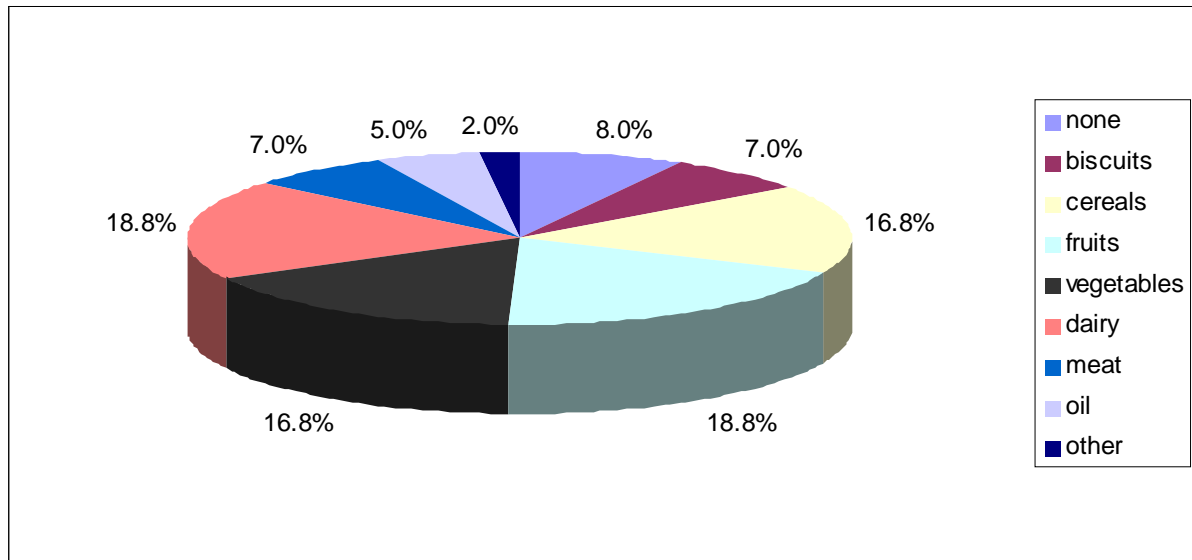


Figure 4. Type of organic food purchased.

First places belong to cereals, fruits, vegetables and dairy (mentioned each by less than 20% of the sample). Biscuits, meat, oil (mentioned each by less than 10%) follow, 2% bought other products and 8% any. Cereals are the most widely present bio product in Cluj-Napoca market, but fresh fruits and vegetables are very hard to find and only as an exception are packed and labeled with eco label. This suggests that, either the respondents are highly interested in bio fruits and vegetables, monitored constantly the market and took advantage of the rare occasions when they were available or, most probably, they mistake the concept of organic for those of traditional, obtained in the country side by family or friends, with no preservatives or colorings added etc.

The last question estimated the willingness to pay more for one organic product: milk: “How much are you willing to pay more for one liter of organic milk compared to conventional milk: a) <2 lei (<0.44 Euro) b) 2 lei (0.44 Euro) c) 3 lei (0.67 Euro) d) 4 lei (0.89 Euro) e) > 4 lei (> 0.89 Euro) f) nothing g) no answer/I don't know?” (see Figure 5, Table 4).

This question was tested on a higher sample than the others – 200 persons (over 18 years, urban residents, from Cluj-Napoca). We chose the milk because it is largely used by all population categories (children, adults, aged persons, urban, rural residents) during all year long (see Table 3).

At the time of the interview, one liter of conventional fat milk in the supermarket was 4.5 lei (estimated average price) and in the market (raw milk from the small farmers) was 2.5 lei. Almost all (80%) of the respondents declare they are willing to pay up to 2 lei for organic milk, which represents almost 50% more compared to market price and almost double compared to farmers' price. Only a small percentage (1.5%) of respondents state they are not willing to pay anything more or do not know what to do. Even if there is a difference between what people declare and what they actually do, these high figures suggest there are high chances that consumers will actually pay more for eco milk. The previously mentioned OECD study (2008) discovered that: more than 55% of the respondents would pay a premium not larger than 15% of regular price for organic food and about one third would not pay anything a premium; dairy products follow the same tendency (Boccaletti 2009, p. 4). Consumers of our study seem more willing to pay a higher premium than the OECD consumers.

Table 3

Monthly average consumption for the main food products and beverages  
(per person, in individual households; 2011, estimation)

	M. U.	2011
Fresh meat	kg	3.079
Meat products	Kg	1.023
Fats	Kg	1.201
<b>Milk</b>	Liters	<b>5.962</b>
Eggs	Pcs.	13
Sugar	Kg	0.741
Potatoes	Kg	3.465
Vegetables and canned vegetables (equivalent fresh vegetables)	Kg	7.597
Fruit	kg	3.399
Mineral water and other non-alcoholic drinks	Liters	4.571
Beer	Liters	1.077
Wine	Liters	0.864
Plum brandy and natural branders	Liters	0.217

Source: Ciucea et al 2012, p. 30.

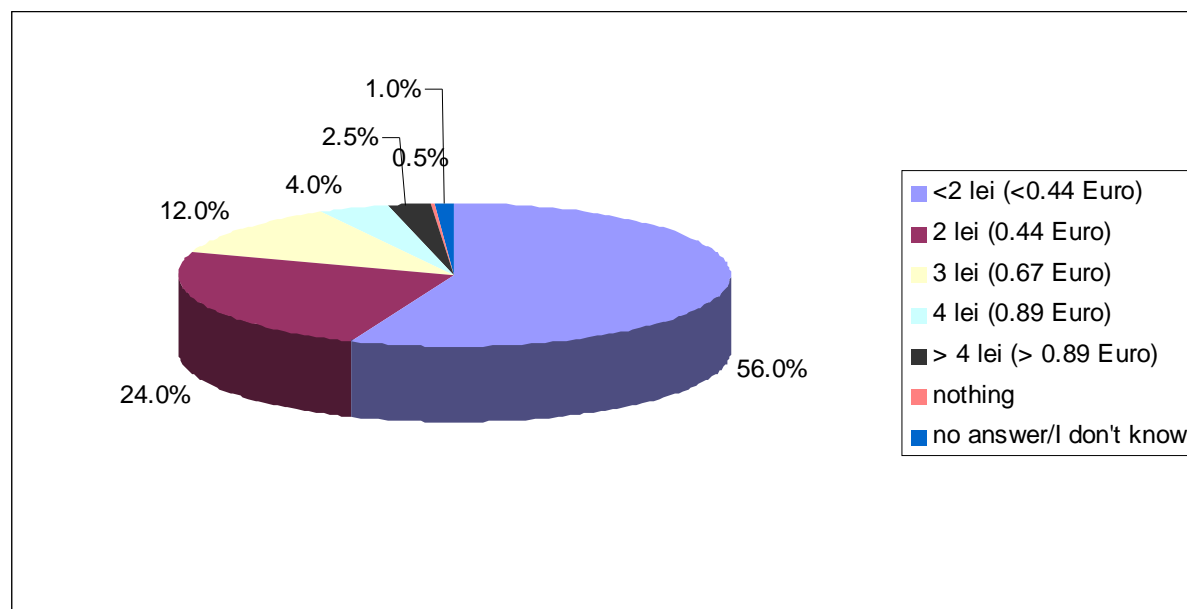


Figure 5. The amount customers are willing to pay more for 1 liter of organic milk.

Table 4

Price increase, absolute and relative, that customers are willing to pay more for 1 liter of organic milk compared to supermarket and market prices

Share of sample	56%	24%	12%	4%	2.5%	0.5%	1%
Absolute increase	<2 lei (<0.44 Euro)	2 lei (0.44 Euro)	3 lei (0.67 Euro)	4 lei (0.89 Euro)	> 4 lei (> 0.89 Euro)	nothing	no answer/I don't know
Relative increase: price increase compared to supermarket price	<44.44%	44.44 %	66.67%	88.89%	>88.89%	0%	-
Relative increase: price increase compared to market price	<80%	80%	120%	180%	>160%	0%	-

**Conclusions.** The dominant characteristic of organic food in consumers' mind, revealed by the majority (85%) of the respondents, is "healthy". This is a positive premise, on which a strong attitude in favor of organic food consumption can be built and enhanced. More than half of the respondents (60%) states to have no or little trust in sellers claims about a product being eco in the absence of organic label, which is a good situation, but improvable: more consumers should be educated to know the meaning of eco-certification, the appearance and significance of the eco-label and to require its presence on the product as a guarantee of being an ecological product. Half of the respondents declare they spent less than 50 lei (0-11.11 Euro) on organic food (equivalent of less than 5.7% of food expenditures; the 8% who didn't buy any eco food, according to question four, are included here) and 40% of the respondents declare they spent between 51-200 lei (11.12-44.44 Euro; equivalent of 5.8%-22.9% of their food budget) on organic food. These percentages are high because the questionnaires were sent online, self administered, the topic of the research stimulated more the interest of organic food consumers than of non-consumers and so, the sample contains more consumers than the universe population. At the same time, the money customers perceive themselves as spending on organic foods are higher than country average – 2.48 Euro/pers. in 2011 (Stoenescu 2012, p. 3). The most frequently present bio food categories in consumers' purchases are, according to consumers' opinions, cereals, fruits, vegetables and dairy. These results must be read as consumers' perceptions on their own shopping and not as real bio food consumption. Willingness to pay for 1 liter of organic milk up to 44% more compared to supermarket price and 80% more compared to small farmers' price by most of respondents (80%) indicates high interest in this type of product. These findings are encouraging in the sense of developing positive attitudes towards and increasing the consumption of organic food.

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Authors:

Dacina-Crina Petrescu, Babes-Bolyai University, Faculty of Business, Str. Horea no. 7, Cluj-Napoca 400174, Romania, European Union; e-mail: [crina.petrescu@tbs.ubbcluj.ro](mailto:crina.petrescu@tbs.ubbcluj.ro)

Ioan Oroian, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Cluj-Napoca 400372, 3-5 Calea Mănăştur Street, Cluj, Romania, European Union; e-mail: [ioroian@usamvcluj.ro](mailto:ioroian@usamvcluj.ro)

Marian Proorocu, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Cluj-Napoca 400372, 3-5 Calea Mănăştur Street, Cluj, Romania, European Union.

Tania Mihăiescu, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Cluj-Napoca 400372, 3-5 Calea Mănăştur Street, Cluj, Romania, European Union.

Laura Paulette, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Cluj-Napoca 400372, 3-5 Calea Mănăştur Street, Cluj, Romania, European Union

Dan Vârban, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Cluj-Napoca 400372, 3-5 Calea Mănăştur Street, Cluj, Romania, European Union.

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