

CONSUMER'S ATTITUDE CONCERNING ORGANIC FOODS

MIRELA-CRISTINA VOICU
Faculty of Economic Studies
„Nicolae Titulescu” University
185 Calea Văcărești, District 4, Bucharest
ROMANIA
voicu.cristina.m@gmail.com

ELENA-MIHAELA ILIESCU
Faculty of Economic Studies
„Nicolae Titulescu” University
185 Calea Văcărești, District 4, Bucharest
ROMANIA
mag_mihaela@yahoo.com

Abstract: Despite the fact that Romanians have increasingly healthier habits and the consumption of organic foods is growing year after year by 20%-30%, this consumption represents less than 1% of the aggregate sales in Romanian retail, compared to the Western Europe, where the share exceeds 5%. Also, national consumption of certified organic products represents only 2% of the total foods consumed. In order to be able to change the existing situation it is necessary to determine, firstly, the consumer's attitudes on organic products. Since the attitudes are the result of learning, they can be changed. In the light of the organic consumers' possible attitudes, this aspect has two connotations. One can be favorable, in changing the view of a greater number of consumers in favor of more products, promotional messages, etc., environmentally oriented. The other may be unfavorable, if the companies are not careful and do not maintain constant and convincing efforts to protect health and the environment. In this context, we aim to add more insight on consumers' behavior regarding organic foods.

Key words: marketing research, consumer behavior, attitudes, statistic survey, green goods

1. Introduction

“The fast century” has certainly put its mark on our life style and not necessarily in a positive way. The first issues and the most important one of this new lifestyle is represented by poor nutrition. In this context, in recent years a new trend emerged on the food markets in Romania, the ecologic food consumption, also known as bio or organic, which meet a real success.

Despite the fact that Romanians have increasingly more healthier habits and the consumption of green foods increase also year after year by 20%-30%, they represent less than 1% of the aggregate sales of Romania retail, compared to the western Europe, where the share exceeds 5% [1] (in Germany the consumption share is 5%, in England and Austria is 3% and in Hungary it has reached 2%). Also, the internal consumption of certified green foods represent only 2% of the total consumed foods, although almost 70% of the products from the Romanian rural areas can be classified as natural and green, according to Ciprian Cioceanu, president of the Organic Agriculture Operators of the “Bio Romania” Organic Agriculture [4].

However, experts in the field claim that the market for organic foods will not exceed 2% in the following three years [2].

To be able to change the current situation it is necessary to determine, firstly, consumers' attitude regarding organic foods. Because they are the result of learning, attitude can change. In the light of the organic consumers' possible attitude, this aspect has two connotations. One can be favorable, in changing the attitude of a greater number of consumers in favor of more products, promotional messages, etc., environmentally oriented. The other may be unfavorable, if the companies are not careful and do not maintain constant and convincing efforts to protect health and the environment. In this context, we aim to add more insight on consumers' behavior regarding organic foods.

2 The concept of attitude towards the organic foods

Ecological foods, also known as "bio" or "organic" are goods produced by farmers who place emphasis on the use of renewable resources and environment conservation. For a good to be declared ecologic, it is necessary for at least 95% of its components to be organic and also to undergo the evaluation carried out by an Inspection and Certification Body, nationally or internationally accredited [6].

Ecological products represents a mix of ingredients from organic farming that respects the following principles and rules [8]:

- Eliminate any polluting technologies in an unpolluted area;
- Use of varieties and species within creased resistance to environmental conditions;
- Improving and maintaining soil's natural fertility;
- Use of fertilizer and soil improvers, pesticides, raw materials for feed preparation, ingredients for preparing food according to the guidelines provided by organic farming legislation;
- The absence of genetically modified organisms and plants irradiation;
- The absence of synthetic chemical additives: preservatives, colorings, flavorings, emulsifiers, acidifiers, taste enhancers, thickeners.

On the other hand, attitude is the term used when we consider total evaluation (including of oneself) made by a consumer, on persons, objects and issues, considering how favorable/unfavorable or how positive/negative is considered the item subject to judgment [5]. Generally, attitudes are the result of a learning process undertaken by the consumer, of its direct experience with the product, of the information obtained from others and from exposure to marketing. Attitudes vary in a large number of ways. We may question the attitudes form their foundation point of view and thus we can discriminate attitudes based on emotions, believes or previous behaviors and experiences, or we can approach the attitudes having internal consistency (being associated largely with feelings, attributes and positive behaviors) or ambivalent attitudes (composed of a combination of positive and negative attributes) [3].

Attitudes lead to the formation of a mindset based on acceptance or rejection of an object (in this case organic food), based on its proximity or remoteness, and also makes people have a relatively constant behavior regarding similar objects. These are designed to save energy and thought efforts, reason for which are hard to change [5].

3 Research methodology of the attitudes of organic food consumers

The marketing research process was conducted following the coordinates:

↳ *Research scope and objectives*

The research summarized in this article aims to assess Bucharest's consumers attitudes concerning organic foods.

The appropriate objectives of the above formulated purpose are:

- Identifying the extent to which Bucharest's consumers know the organic foods;
- Determining the main segments of organic food consumers by age, sex, income, education, occupation;
- Identifying the Bucharest's consumers attitudes regarding organic foods;
- Determining the extent to which the consumers recognize the main organic foods certifications;
- Identifying the frequency of consumption of the main categories of organic foods;
- Establishing the main reasons for purchasing/not purchasing the organic foods;
- Determining the importance of the main characteristics of the organic foods in the acquisition process;
- Identifying how the consumers asses organic foods main attributes;
- Determining the main factors that limit the consumption of organic foods;
- Determining the financial sacrifice level to which the consumers will be willing to undertake to purchase organic foods.

↳ *Community research and sample size*

Limited financial and time resources determined the limitation of the research area only to Bucharest. Thus, general collectivity under research is represented by Bucharest's population aged 15 and over of which a single sample was extracted.

The *observation unit* is represented by the natural person (the individual) that is part of the researched collectivity and the *analysis unit* is the same with the observation unit.

Since the questions of the query translate into qualitative variables, it was considered appropriate to determine the volume of the sample using the qualitative variables relationship. The sample was determined considering the dispersions with a maximum possible value for qualitative variables ($p = 0.5$). The probability for guaranteeing the result is 95% with a maximum allowable error margin of $\pm 5\%$. The dimension of the researched community, meaning individuals with ages over 15, last resident in Bucharest, amounts to a total of 1,674,146 persons according to the data provided by the National Statistics Institute. Thus, the sample size will be determined according to the established restrictions, as follows:

$$(1) \quad n = \frac{1,96^2 \cdot 0,5 \cdot 0,5}{0,05^2 + \frac{1,96^2 \cdot 0,5 \cdot 0,5}{1.674.146}} = 384,0718 \cong 385$$

Within this research 385 persons were questioned, based on the questionnaires, out of which 37 questionnaires were removed because they contained incomplete data or non-answers. It follows, thus, a final sample of 348 persons. The response rate meeting a satisfactory level of 90.4%.

↳ *Research questionnaire*

The questionnaire used in this study represents a reflection of all objectives, hypothesis and variables established in the earlier stages of research.

The method used for collecting information used for each research was presented in the personal survey (face to face) carried out in public areas with heavy traffic with interception on the streets or business premises. This method for collecting data involves short interviews, thus determining a questionnaire of 15 questions and low complexity. Also, the method of collection imposed the use of a structured process of presentation where the questions were questions presented in the query and the use accessible scales (semantic differential, Likert's scale).

Therewith, when developing the questions wording the importance of correlating the content of the questions with the degree of respondent's awareness in terms of the issue at hand was considered, so that his answer should be given knowingly.

The language used when wording the questions must be simple and direct, so as not to cause confusion or to leave room for interpretation, being adapted to the investigated community's characteristics. Regarding the order of the questions, for the issue at hand the respondent's work approach was applied, principle that requires that questions requiring greater mental effort to respond to be placed in the center of the questionnaire.

↳ *Sample representativeness*

One of the preliminary steps of statistical analysis and interpretation of the results is establishing the representativeness of the selected sample population. This is done based on auxiliary variables: "sex" and "age" for which the distribution parameters' values are known for the population of interest. It is well know the fact that for the situation where the differences compared to the estimators values obtained based on the data from survey are significant then, the sample is not representative.

The share of women form the sample total turned out to be 54,4%. In order to see if there are significant differences compared to the known value form the total population according to the official data (53,4%) test z was used (the sample is of normal value) to compare the proportion from the sample and of the population. Thus, considering the fact that the value computed for the test is smaller $z_c = 0,374$ than the theoretical value $z_{1-\frac{\alpha}{2}} = 1,96$ established for a guarantee probability of the research results of 95% to which corresponds a level of significance, $\alpha = 0,05$ we can conclude that the sample is representative.

Regarding the variable "age" it is know the distribution form of this variable in the target population due to the data provided by NIS [7], so that in order to verify the representativeness of the sample it has been used the test χ^2 to compare this distribution with the one from the selected sample. In our case, after applying the test we have obtained $\chi_c^2 = 8,871$. The theoretical value of the test considered for a level of significance $\alpha = 0,05$ and a number of degrees of freedom $df = k - 1 = 5 - 1 = 4$ is 9.49. Thus, $\chi_c^2 < \chi_{0,05;4}^2$ a conditions that

leads to accepting the null hypothesis and formulates the conclusion according to which the two distributions are consistent therefore, the sample is representative.

4 The research results

After conducting the survey to determine *Bucharest's consumer's attitudes regarding the organic foods*, we were able to formulate the following conclusions, as a result to the established objectives and hypothesis during the preliminary phase of the research:

- The first objective of the research was to identify *the extent to which Bucharest's consumers know about organic food*. In this regard, the respondents were asked to express their opinion and name a term that they usually associate with organic food. The data collected shows that 44% of Bucharest's consumers associate organic food with no fertilizers and no food additives, while 31% believe organic food are natural products, 19% consider that they are fresh, and 6% that are produced traditionally (see Fig.1).

These results reflect the low level of awareness of Bucharest's consumer on organic food; given that the majority of respondents could not correctly define this type of products (56% of Bucharest's consumers have defined them incorrectly as being natural products, traditional or fresh).

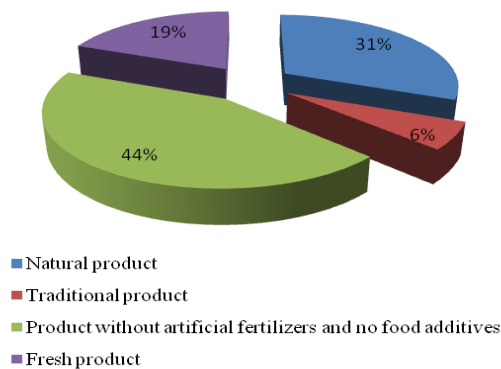


Fig.1. What is the term you associate with the name organic food?

Incorrect identification of the organic foods represents one of the main factors that negatively influence the sales volume on this market. In this context, the information and promotion campaigns of the organic foods may have an important role in enhancing opportunities for the producers of this type of products.

- The second objective of the research is to *determine the main organic food consumer segments*. Based on data provided by the research we can conclude that the frequency of consumption of organic foods is relatively low (see Fig.2.)

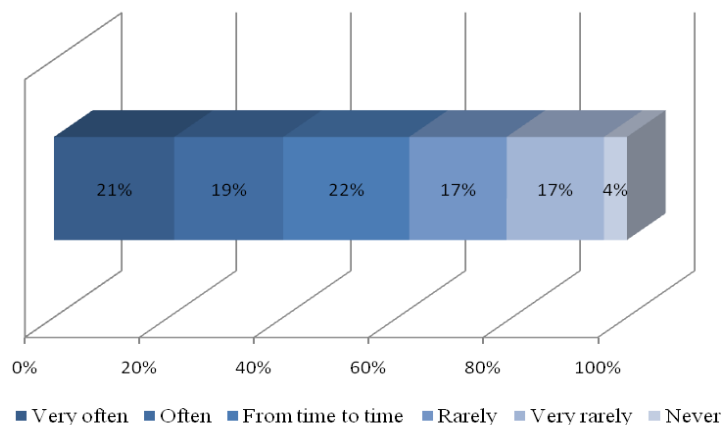


Fig. 2. The frequency of consumption of organic foods

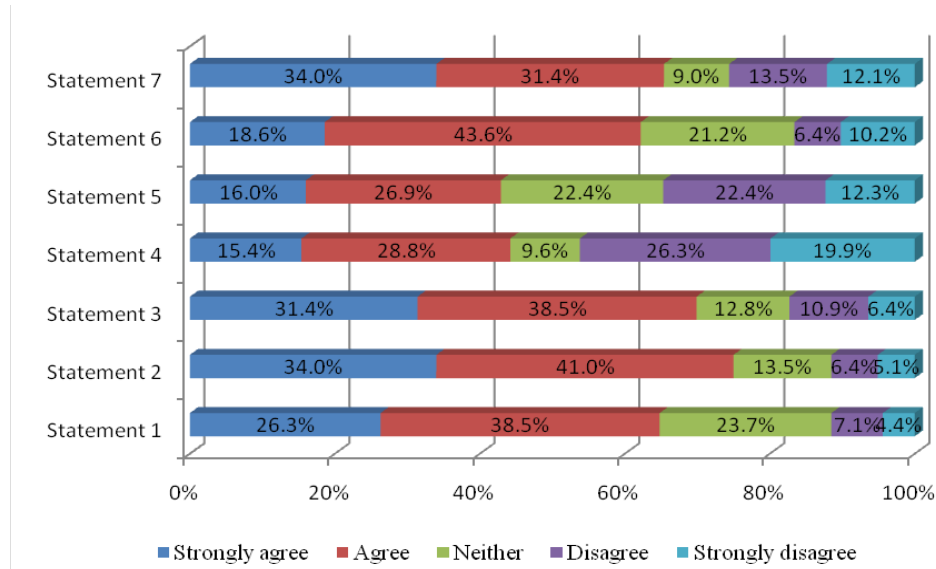
According to the research, the frequency of organic food consumption is only apparently high, given that 40% of consumers buy organic products often and very often and 22% sometimes consume these products. On the other hand, the share of consumers who buy organic food seldom and almost never is of 34% and those who say they have ever used organic products is 4%. Correlating these results with those obtained from the

previous objective we were able to conclude that those who consume often and very often organic food are not entirely represented by people who define these products correctly. So those who correctly define organic food and have declared that they consume often and very often these products represent only 22%. Most organic food consumers are actually consumer of products more or less natural and not certified organic products consumers.

Also, following the analysis carried out it was found that the average monthly net income is the variable that significantly influences the consumption of organic foods and there is a positive correlation between these two variables. Thus, as consumer income increases, there is an increase of the same measure of consumption of organic food. Also, it was found that age, education and gender are variables that do not significantly influence consumption of organic foods.

▪ *Identifying Bucharest's consumers' attitudes regarding organic foods* has been another objective of the research carried out.

Analyzing the data collected through Likert's scale (see Fig. 3.), we may conclude at first glance that Bucharest consumers agree that organic foods have a high quality level (75% of consumers) but that are unreasonably more expensive in comparison to the conventional ones (69.9% of consumers). Also, 65.4% of respondents agree that organic foods are the base for a healthy lifestyle, 64.8% of respondents have confidence in this type of products and 62.2% agree with the statement that consuming organic food is a sign of commitment to the environment.



Captions: Statement 1: I have confidence in organic foods
 Statement 2: Organic foods have a high quality level
 Statement 3: Organic products are unreasonably more expensive in comparison to the conventional ones
 Statement 4: I am willing to pay a higher price for the purchase of organic products
 Statement 5: Organic foods have different properties compared to conventional products
 Statement 6: Eating organic food is a sign of commitment to the environment
 Statement 7: Organic foods are the base for a healthy lifestyle

Fig. 3. Bucharest consumer attitudes regarding organic foods

The average scores, specific to Likert's scale reinforce those stated above (see Fig.4).

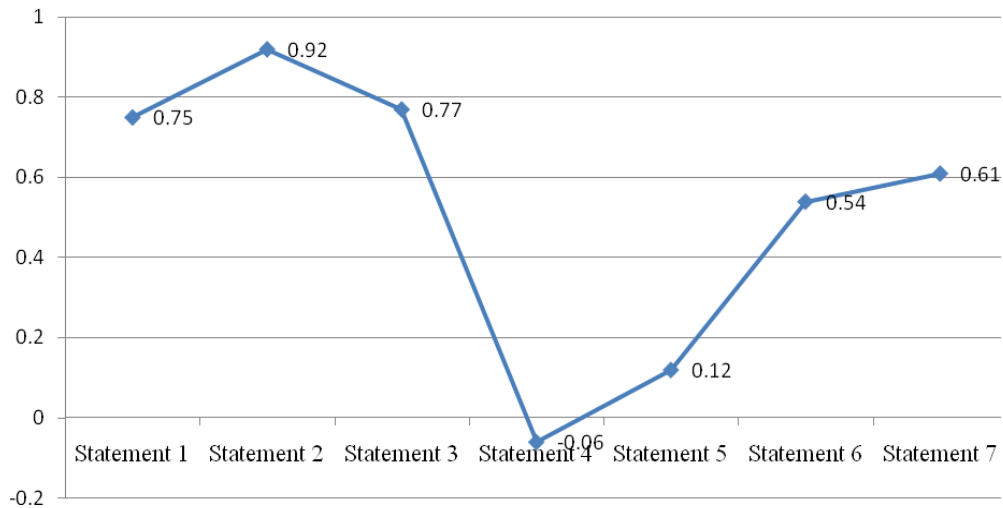


Fig. 4. The average scores, specific to Likert's scale used to measure consumers attitudes regarding organic foods

▪ The fourth objective of the research is to determine *the extent to which consumers recognize the main certifications of organic foods*. After processing and analyzing the data related to degree of awareness of Bucharest's consumers of the main certifications of organic food, we were able to conclude that a significant percentage of consumers do not have sufficient information on the main certifications of organic foods (see Fig. 5.). We reiterate on this occasion the need to educate consumers on the characteristics of Romanian organic food.

However, there are some certifications recognized by consumers. Thus, 57% of consumers know well and very well the national certification "ae", specific for organic foods in Romania and 49% know well and very well known the national certification "bio" of Germany.

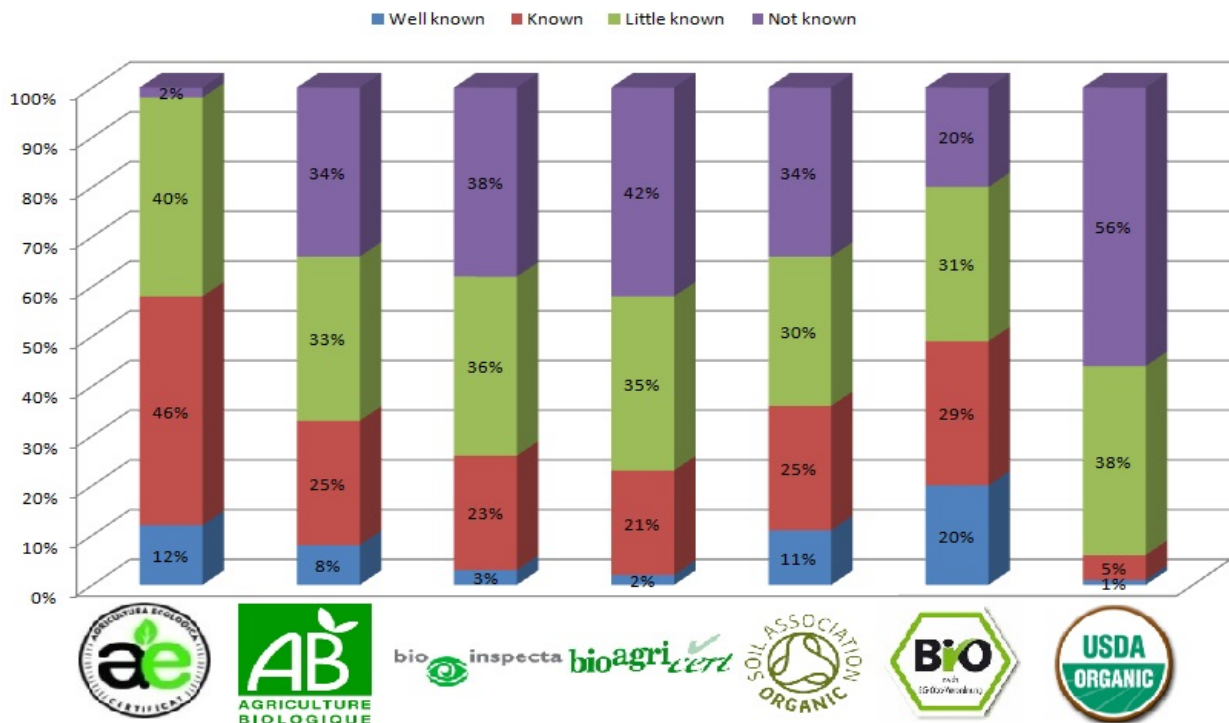


Fig. 5. Awareness of the main certifications of organic food

Also, 36% of consumers know well and very well the "Organic Soil Association", Britain's national certification and 32% of consumers know well and well the French national certification "AB". Instead, the

certifications "bioagri-CERT" - Italy, "USDA Organic" - US and Swiss's national certification "bio-controllers" are very little known.

Concentrating marketing efforts towards informing the consumers on organic food certification or production process is a key element in developing this market. In this context, it is necessary for marketers to focus their attention on promoting these certifications, drawing inspiration from the rich branding theory and practices. The information flow should be maintained through regular and clear information session of the advantages and characteristics of organic foods.

Through the next objective was targeted the *identification of consumption frequency of the main categories of organic foods*. Following the data collected from the analysis, we can observe that the fruits and/or vegetables are a category of organic foods with the highest frequency of consumption, 37% of consumers of organic products claim that they consume them daily, and 33% that they consume once a week (see Fig. 6.). The next category of organic foods consumption frequency is represented by bakery products consumed daily by 20% of consumers of organic food once a week and 37% of them. Milk and / or dairy products and meat and/or meat are consumed daily by 16% and 14% of respondents and once a week for 28% and 39% of respondents.

On the other hand, organic eggs are consumed equally once a week (32% of consumers of organic products) and 2-3 times per month (31% of respondents). Honey, soft drinks, coffee and teas are the categories of organic foods with the lowest frequency of consumption. Thus, soft drinks, coffee and tea are consumed by 61% of consumers with a frequency ranging from 2-3 times per week to occasional, and honey is consumed once a month or occasionally.

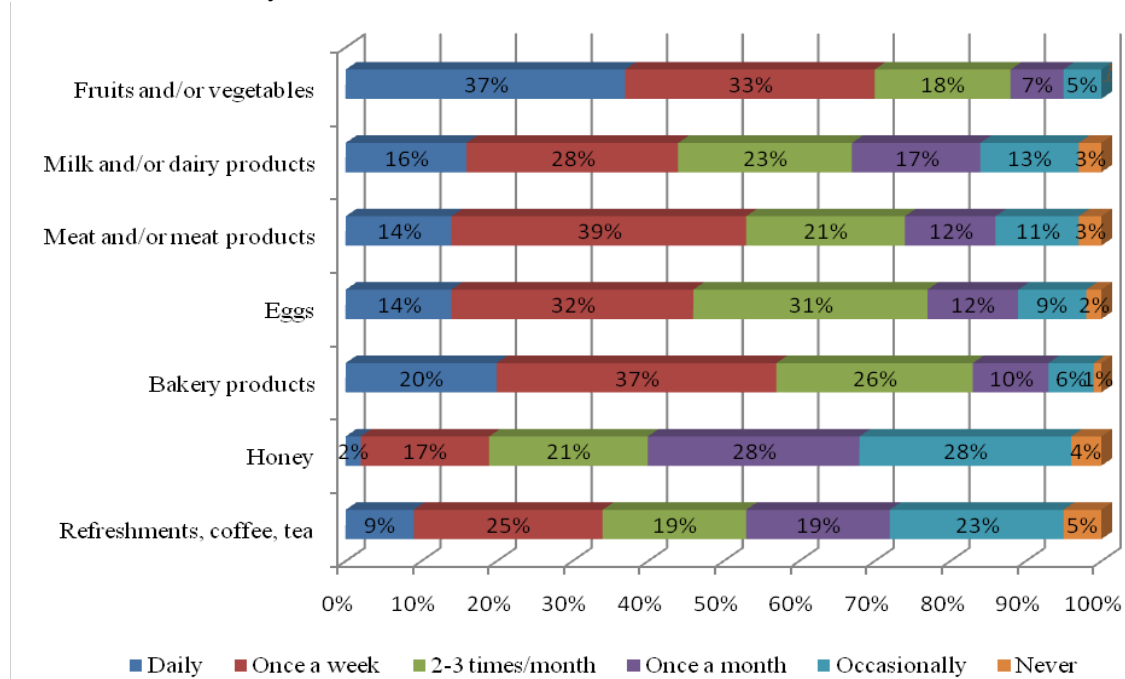


Fig.6. consumption frequency of the main categories of organic foods

In terms of establishing the *main reasons for purchasing/not purchasing organic foods*, research shows that the main reasons for buying are that organic food taste much better (46% of consumers of organic food) and they are healthier (34 %) (see Fig. 7.).

On the other hand, the 4% of non consumers of organic foods do not purchase such products, primarily due to the high price (50% of respondents who do not consume organic foods) and the lack of confidence in the truthfulness of the producer s' statements (35.71%) (see Fig. 8.).

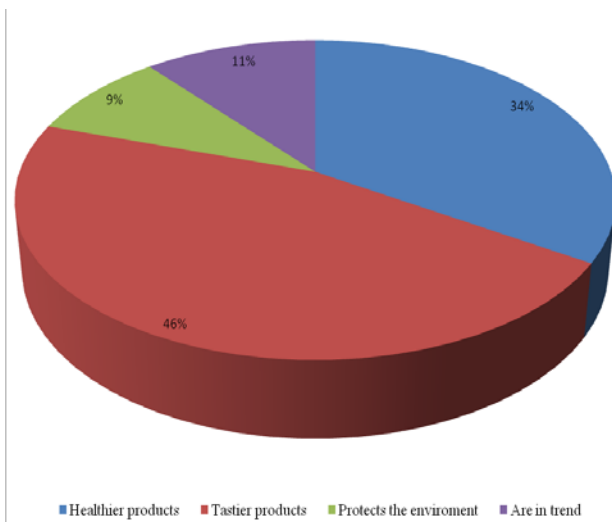


Fig.7. Reasons for buying organic foods

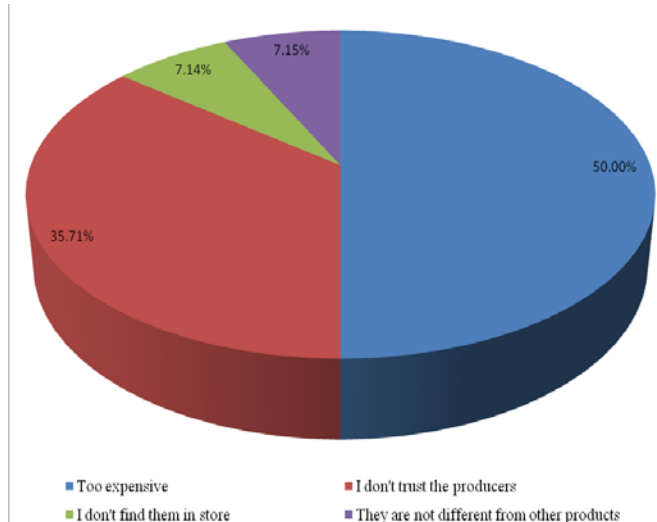


Fig.8. Reasons for not buying the organic foods

■ With regard to *determining the importance of the main features of organic foods in the process of acquisition*, research shows that taste is the most important feature in the process of buying organic foods, followed by health benefits and price (see Fig. 9.). To a lesser extent, consumers believe that when choosing organic food the reduced impact on the environment, ingredients and brand are also of importance.

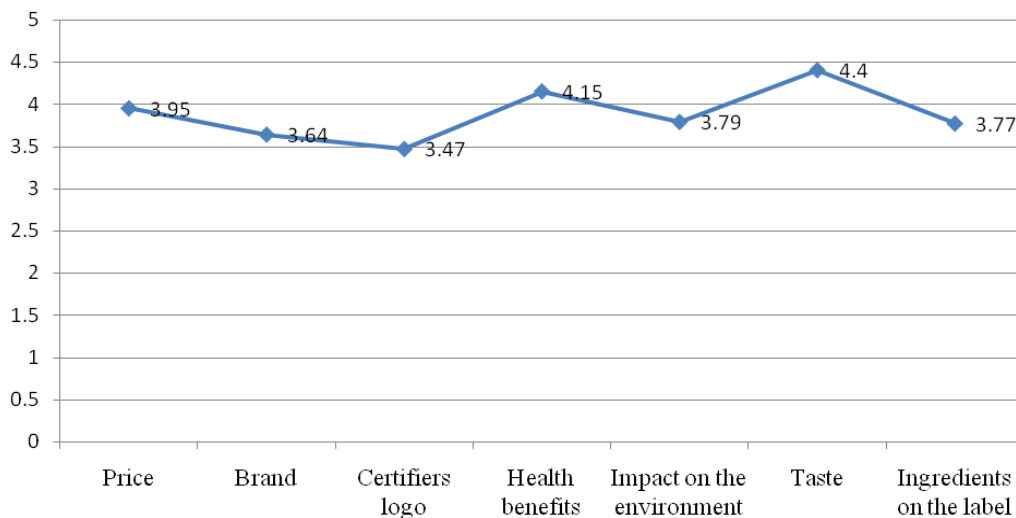


Fig.9. Distribution of average scores on the importance of organic food attributes in the acquisition process

The presence of the logo certifier has the least importance in the process organic foods acquisition compared with the aforementioned characteristics.

■ To identify the *consumers' assessment method of the main organic foods attributes*, was used a semantic differential scale where consumers were asked to express their views on the characteristics of organic food versus conventional food. Thus, 86% of Bucharest's consumers and respectively 82.67%, believe that organic foods are "much better" and "best" in terms of content and other chemical additives and, respectively, in terms of taste, compared to conventional food products (see Fig. 10.).

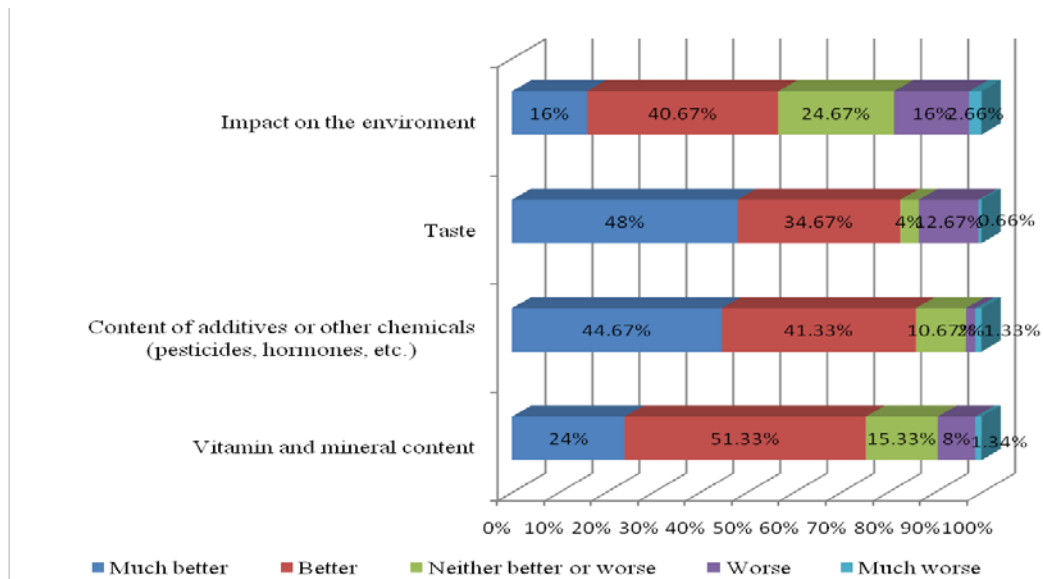


Fig.10. Method of assessment of the main attributes of organic food compared with those of conventional food products

Also, 75.33% of Bucharest's consumers consider that organic foods are superior to conventional food products in terms of content of vitamins and minerals, and 56.67% believe that organic foods have better impact on the environment compared to conventional products.

Correlating these results with those on the importance of the organic foods main characteristics in the acquisition process, we can conclude that organic foods are considered superior to conventional products in terms of some very important features for consumers.

■ Following the research, we can draw up a conclusion also regarding the *main factors that limit the consumption of organic food*. Thus, according to 49% of Bucharest's consumers the main factor limiting the purchase is the high price of organic foods. Also, 24% of consumers distrust limits the consumption of organic food. To a lesser extent, lack of information and limited availability are two other factors that limit the consumption of organic foods (see Fig.11.).

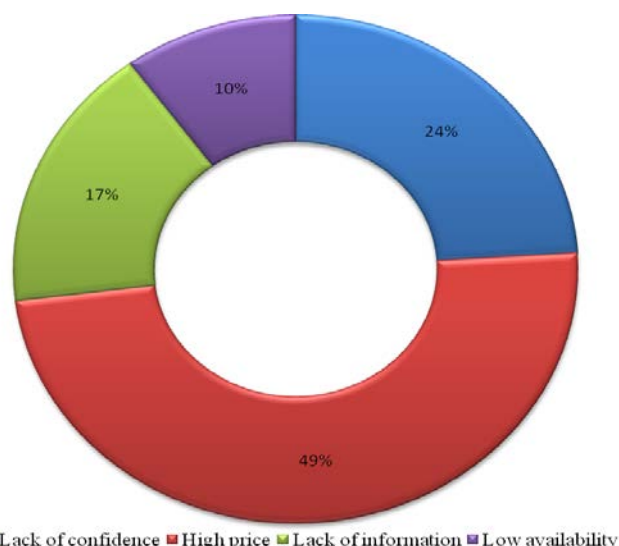


Fig.11. Factors limiting the consumption of organic food

■ The last objective of the study was to *determine the level of financial sacrifice that the consumer would be willing to perform when purchasing organic foods*. Thus, 40% of Bucharest's consumers are willing to pay extra 10-20% for the purchase of organic foods, and 34% of them only 10% more (see Fig.12.).

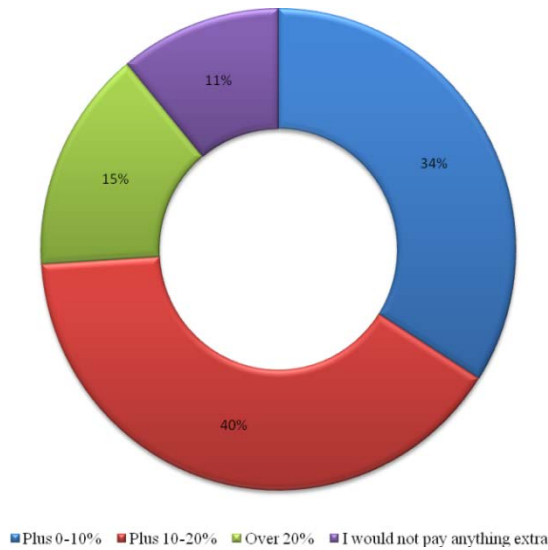


Fig.12.The level of financial sacrifice the consumer will be willing to make in order to buy organic foods

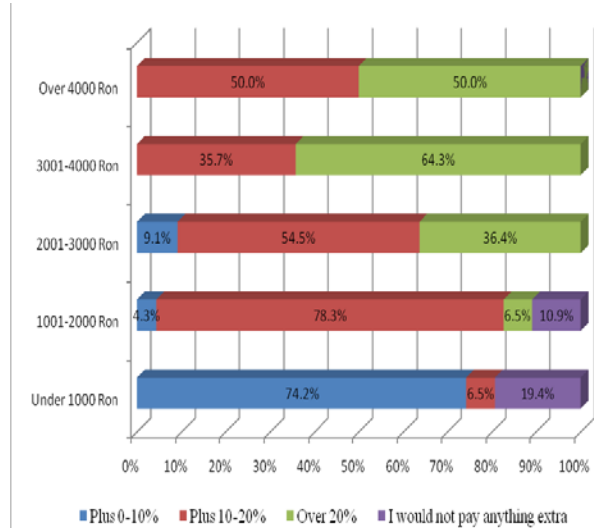


Fig. 13. Level of sacrifice correlated to "income" variable

Correlating these results with those specific to the "income" variable, we may note that 74.2% of people with an income below 1000 lei are willing to pay up to 10% more to buy organic foods, 78.3% of people with an income between 1001-2000 lei and 54.5% of those with an income between 2001-3000 lei are willing to pay extra 10-20% for the purchase of organic foods. People with an income above 3000 lei are willing to pay extra or either 10-20% or even more than 20% for organic foods. This results should be noted considering the fact that currently, the price of organic food is 30% higher, and sometimes even double compared to conventional products [2].

5 Conclusions

Summarizing the above considerations, we may conclude that consumers' attitudes concerning organic foods is favorable. Unfortunately, this is not always reflected in the purchase of these products, the first obstacle is the difficulty of identifying organic food. Although Bucharest residents declare themselves consumers of organic food, many do not know their main features, nor their certification system. Consumers confuse organic foods with products that offer similar benefits or with products that seem ecological leading thus to the reduction market development of organic food, taking into account the factors which limit the purchase of organic products are perceived to be lower in these "substitutes" (such as price).

This can be changed only by informing consumers and develop a correct attitude on organic food. Thus, through clear and issued repeatedly can increase the level of education of the population on this product, which will ultimately justify the presence of the most important barriers, the price premium.

References

- [1] Ilie, I., 2014, *Made in BioRomania*, Capital.ro, Friday, 06 June 2014, <http://www.capital.ro/made-in-bioromania.html>;
- [2] Ilie, I., 2012, *Organic products: few expensive, but still sought by Romanian*, Capital.ro, Friday, 13 July 2012, <http://www.capital.ro/detalii-articole/stiri/verde-de-romania-169127.html>;
- [3] Petty, R.E., Wegener, D.T., 1998, *Attitude Change: Multiple Roles for Persuasion Variables*, The Handbook of Social Psychology, 4th edition, pp. 323-390, McGraw-Hill, New York, http://www.fca.pucminas.br/saogabriel/raop/pdf/attitude_change.pdf;
- [4] Popa, C., 2012, *How much does the consumption of certified organic products represent in Romania*, Income Magazine, posted 27 Mai 2012, <http://incomemagazine.ro/articles/cat-reprezint-in-romania-consumul-de-produse-ecologice-certificate>;

- [5] Voicu, M. C., 2013, *A quantitative research of consumer's attitude towards food products advertising*, Computational Methods in Social Sciences, Vol. 1, Issue 2/2013, pp. 11-20, cod ISSN 2344 – 1232, ISSN–L 2344 – 1232, http://cmss.univnt.ro/wp-content/uploads/vol/split/vol_I_issue_2/CMSS_vol_I_issue_2_art_002.pdf;
- [6] * * * - *Our food of all days - (non) organic?*, Greenly Magazine, posted on 10 February 2012, <http://greenly.ro/viata-eco/hrana-noastra-cea-de-toate-zilele-neecologica>
- [7] * * * - *Statistic yearbook 2012*, National Institute of Statistics, http://www.insse.ro/cms/files/Anuar%20statistic/02/02%20Populatie_ro.pdf;
- [8] * * * - *Research Report - The image of organic food (eco) on market in Romania and Moldavia*, S.C. Rem Brandt S.R.L., http://www.univagro-iasi.ro/PT/agr_ecologica/raport.pdf.