The perception of consumers from the north-east region of development of Romania of organic produce

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THE PERCEPTION OF CONSUMERS FROM THE NORTH-EAST REGION OF DEVELOPMENT OF ROMANIA OF ORGANIC PRODUCE

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Abstract: *A significant amount of data and statistical information currently available indicates an ever-increasing appetite of European consumers for organic agri-food products. This particular phenomenon can be identified in Romania as well, albeit to a lower extent. In view of this, an analysis of Romanian consumers` perception of this particular category of produce, whether more succinct or extensive, is both necessary and useful in the shaping of a specific profile of this type of consumer. Consequently, in this study we discuss the interpretation of the data obtained by applying the 2016-2017 Ecological Agri-Food Products Questionnaire, which was developed within the Rural Development Research Platform Interdisciplinary Research Group and filled in by 1788 respondents, 723 of them residents of the North-East Development Region of Romania. The present research approach focuses on aspects of analysis based on demographic categories while aiming at observing the level of understanding of the term certified organic food-product, the main reason behind purchases, the criteria employed in recognizing organic agri-food products, the respondents' preference for certain purchase locations, customer familiarity with the logo specific to organic produce as well as the degree of confidence in organic food-products of the consumers in the North East Region of Development of Romania.*

Keywords: *organic food products; consumer profile*

JEL Classification: *Q57, P46*

INTRODUCTION

A review of the field literature shows that historically there were several determinants that contributed to the emergence of organic farming, and that its definition has involved significant variations based on relevant criteria, mainly the geographical area. It can be noted that, at European level, an important contribution to the advancement of the concept of organic farming has been made by the scientific community, which has been noted for its commitment to the issue of the damaging impact of intensive agriculture on the environment and on population health as a result of the consumption of conventional agri-food products with a high content of residues, a direct effect of the chemical treatments applied within the production chains. At the same time, besides the academic community, an important part, both in the initial emergence and in the subsequent evolution of the concept, has been played by the consumers themselves, through a steady and gradual change in their perception of food products and implicitly through an increased awareness of the need to choose a more balanced and beneficial diet for their general state of health and well-being. Moreover, consumers have also become aware of their role and impact on the environment, a major determining factor in the emergence and growth of organic farms. Currently, the concept of organic farming is seen by a large number of people as a feasible and sustainable medium – to – long - term solution that can be deployed with a view to countering the negative effects of the primary sector on ecosystems and the general health state of consumers.

Scholars seem to agree on at least three key goals of organic farming:

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- the supply of competitive agricultural and agri-food products, in terms of purchasing costs, fully in line with most of the standards in force, in particular the demands of consumers;

- to improve and preserve the many existing ecosystems by directly and indirectly reducing the impact of polluting sources;

- ensuring the economic and financial conditions supportive of the commercial activities of organic producers, including the provision of specific instruments for their development.

With organic products, it is of the essence give the necessary attention to packaging, certification and labeling. A comparison of conventional and organic products reveals quite a few differences that can be easily noticed at the various marketing and retail points. In this regard, it should be pointed out that the certification process does not represent the final stage in the production chain, contrary to the perceptions or beliefs of more than one consumer. Certification is a complex gradual process that starts during the very first stage of agricultural production and continues during the entire production chain, including the supply chain. The adherents and supporters of organic farming are particularly aware of the relevant principles and useful recommendations developed with a view to encouraging the activities of all those involved in the management of such agricultural holdings. Specifically, the principles and recommendations developed concern the recognition of the biological and ecological nature of the ecosystems comprising the many existing habitats as well as the importance of interactions between soil and subsoil organisms (Stockdale and Watson, 2008).

According to the latest available European statistics, the organic farming sector is experiencing both quantitative and qualitative expansion. The most recent official data clearly show that organic farming is marked by a steady expansion process, with a total area cultivated in the organic system of up to 58 million hectares at the level of 2016, belonging to some 2.7 million agricultural producers. As far as the consumption of organic products is concerned, the highest levels are registered in northern Europe and the lowest in southern Europe. At the level of the European Union, Germany had until recently the largest market share of organic products in terms of total volume of merchandised goods, with sales of almost EUR 2.5 billion. More exactly, in 2017 some 12.8 million hectares were managed in the organic system by a number of 305,000 certified producers.

In 2015, the worldwide market for organic products amounted to around USD 81.6 billion (~ EUR 73.5 billion), registering an increase of around 10% compared to the previous year, of which the European market generated sales of around EUR 29.8 billion (EUR 27.1 billion in EU countries). Compared to 2006, the organic food market in Europe and the European Union has doubled (Willer and Lernoud, 2017). At country level, it can be noted that Germany was the second largest market for organic products in the world (EUR 8.62 billion) after the United States of America. France ranked second in the European Union with 5.53 billion, the United Kingdom third (EUR 2.60 billion), followed by Italy (EUR 2.31 billion). The consumption of organic products per capita varies depending on purchasing power, consumer awareness and affordability of organic products. While European consumers spent an average of EUR 36.4 per person on organic food products in 2015, EU citizens spent EUR 53.7. In 2015, the highest per capita consumption of food produced under organic protocols was registered in Switzerland (262.2 EUR), Denmark (190.7 EUR), Sweden (177.1 EUR), Luxembourg (170 EUR), Liechtenstein (142.4 EUR) and Germany (105.9 EUR).

Although differences in dynamics and implementation are to be expected, it can be noted that Romania, as a European country, has gradually joined the trends in the development of an organic food culture. Consequently, the areas farmed under organic protocols have increased significantly in recent years: from 17,438 ha in 2000, to 170,000 ha in 2006, and to 301,148 ha in 2013.While in 2007 Romania ranked 35th globally in terms of organically cultivated areas, and 38th in terms of number of organic farms, in 2015 it ranked 26th as a result of its organically certified farmland areas.

However, this year, the total area certified as organic has decreased to 226,309 hectares (1.7 % of the total agricultural area).

The "**ae**" (**a**gricultură **e**cologică/ Organic Agriculture) logo is the national logo used to mark organic products, which alongside the EU logo can be effectively used to increase the level of awareness of consumers of the availability of produce obtained from organic farming (M.A.D.R., 2017). Pursuant to Council Regulation (E.E.C.) No. 2092/91, the application of the Community logo on the label of organic food products was optional prior to 2010, but became mandatory as of the July 10, 2010, in accordance with Regulation (E.C.) No. 967/2008.

THE BEHAVIOR OF THE ROMANIAN CONSUMER OF ORGANIC PRODUCTS

The American Marketing Association (A.M.A.) defines consumer behavior as "the dynamic interaction of affect and cognition, behavior and environmental events by which human beings conduct the exchange aspects of their lives" (A.M.A., 2017). Consumer behavior therefore involves a number of processes that characterize the selection, buying, use of products, services, ideas or experiences by individuals or groups to meet their needs and desires (Solomon et al., 2006) Such decisions are influenced by a multitude of factors such as: needs, motivations, perceptions, attitudes, beliefs, financial resources, knowledge, values, life experiences etc. An extensive 2012 study points out that consumers are satisfied with the purchase of organic food products for several reasons (Paul and Rana, 2012). First of all, for their beneficial impact on health and the protection of the environment, their different tastes compared to conventional products, the positive attitude of the customers and the keeping of a particular status in society. Quality was also a very important factor for consumers. The overall level of consumer satisfaction with organic food products was therefore much higher than with conventional products. Consumers believe that organic produce is more expensive, but at the same time think that the higher prices are often justified. As in many other areas, the Romanian market of organic food products is markedly different from the Western European markets, both in terms of quantity, diversity, accessibility of products and in terms of culture, level of information and confidence of consumers and producers.

A 2015 comprehensive study on consumer perception of organic foods conducted by Petrescu and Petrescu-Mag on a sample from the North-West Region of Development brought fresh insights on "the image" of organic food in Romania (Petrescu and Petrescu-Mag, 2015). The first refers to the fact that the decision to purchase organic products is fashionable, and the second suggests that organic products are beneficial to health and the environment. The results of this study suggest the existence of a specific environmental awareness among consumers of organic produce in the North-West Region of Romania: a high percentage of consumers consider organic food to be healthier than conventional food (87 %) and to contribute more to environmental protection than conventional food products (75 %). The notions of organic food products as a fashionable trend (33 %) a whim (18 %) and satisfying one's curiosity (45 %) rank significantly lower in the mindsets of consumers compared to the ideas of health and environmental benefits. On considering demographic variables (age, gender and education) the main differences that can be observed are the result of the level of education which influences the belief in fashionable organic food and its environmental benefits, yet there is no statistically significant difference in the idea that organic food consumption is a caprice and assurance of higher quality and nutritional value than conventional produce. Individuals over 60 share the strongest convictions that most people purchase and consume organic products because they are fashionable, while individuals aged between 36 and 45 have the strongest beliefs in the beneficial impact of organic food products on the general state of health and wellbeing and their contribution to environmental protection. Gender did not stand out as a relevant variable.

As regards the frequency of organic food consumption, according to a 2012 study approximately 45 % of respondents in the North East Region of Development of Romania consumed organic food at least once a week (Stoleru et al., 2012). The most popular categories consumed are also the staple foods, i.e. fruit and vegetables, beverages and dairy products. Approximately a quarter of the respondents said that they regularly checked and questioned whether the products purchased were environmentally friendly, and about 70 % said that they used the label for such checking. The main points of purchase of organic food products were the agri-food markets, supermarkets as well as organic shops.

A very recent study carried out in the North-West Development Region emphasizes that organic farming practices are becoming ever more popular among Romanian producers and are considered a viable alternative for small agricultural holders (Oroian et al., 2017). The same study also shows that consumer awareness of the impact that consumption of organic products has on sustainable development is on the increase. Most importantly, the results of the study indicate that consumers of organic products are educated individuals over 35 years of age who are well aware of the overall effects of diet on their state of health. Increased consumer interest in organic certified produce is attributed to the growing demand for pesticide-free non-G.M.O. goods with high mineral and vitamin content besides various natural ingredients. Once again, this trend indicates that consumers are giving an ever-increasing importance to their health and wellbeing. Undoubtedly, this might be a good starting point for developing market strategies to stimulate the consumption of organic products.

On the other hand, it should not be overlooked that the Romanian consumer often displays a critical attitude and behavior in their purchase decision. Such choice is strongly determined by purchasing power, but in particular by their life experience, which involves not only their individual cultural background and level of information, but also the "tribulations" to which recent history has subjected them. Manifesting considerable distrust of chemical and genetic modification, which is in fact difficult to detect, when choosing a product that qualifies as being organic the Romanian consumer relies to a great extent on their senses by individual decision making. Their individual experience is usually the most important factor in the purchase decision. The Romanian consumer is a rather critical actor, driven by personal beliefs, often considering himself/herself misinformed and preferring to rely on his own interpretation of the ecological character of the food product.

METHODOLOGY

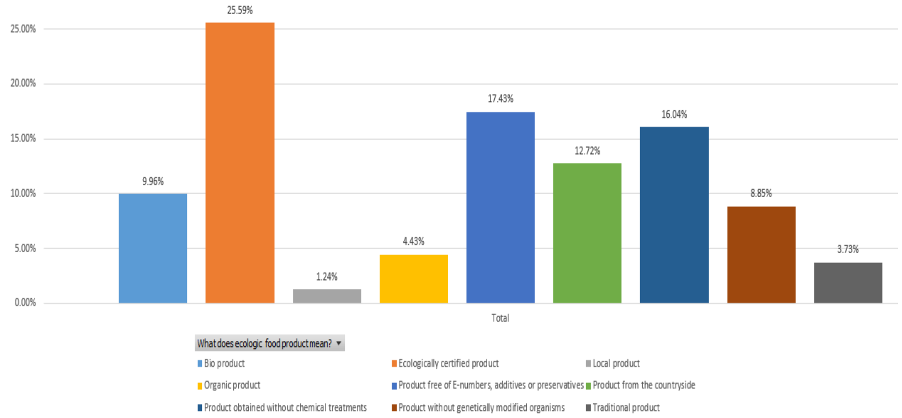
The main objective of this study was to capture consumer perceptions of organic food products in the North East Development Region of Romania. The research was carried out in three stages: the documentation on the state of knowledge in the field, the implementation of the *Organic Agri-Food Products Questionnaire* and the analysis, interpretation and dissemination of the results. The methodological system used in the present research paper to process the information collected, display the results and formulate the conclusions, involved methods and procedures involving bibliographical study and international and national statistics, besides a sociological survey based on the use of an online questionnaire.

The achievement of the proposed objective was made possible by the preparation of the appropriate questionnaire, its online application and survey, followed by the statistical processing of the data compiled. The Organic Agri-Food Products Questionnaire was drafted and developed by the Interdisciplinary Research Group R.D.R.P. *(Rural Development Research Platform)* and distributed online (especially via Facebook) in 2016 and 2017. The questionnaire comprised three sections and 20 "closed" questions with a single answer aimed at identifying the relevant socio-professional features, the behavior of respondents when buying organic food products and the means of advertising and the information respondents rely on concerning organic food products. The socio-professional aspects were addressed by means of 10 questions, focusing on key determinants such as age, gender, marital status, child support, income level, education level, environment and county of residence, field of activity and frequency of organic agri-food products purchase. The sample was nationally representative (1,788 respondents with 1,614 validated questionnaires), with the majority of respondents (723 questionnaires) coming from the Northeast Development Region (45 %).

INTERPRETATION OF RESEARCH RESULTS

The very first thing to be noted concerning the definition of organic certified products is that subjects in the North East Development Region share a distinct view of organic produce: it was found that about a quarter (26%) of the respondents believed that organic food products are only those that are *certified as such.* The next perceptions are of *produce free from E-class compounds, preservatives or additives*, followed closely by *produce obtained free from chemical treatment* (17 % and 16 % respectively). While approximately 13 % of the respondents identified organic products as those obtained or sourced in rural areas, 10 % termed them "bio" products and 9 % identified them with food products free from chemical treatments. Much smaller shares of respondents associated them with organic (4.5 %), local (1 %) and traditional (4 %) agri-food sector goods.

Figure 1– Perception of the concept of organically certified food product



Health concerns emerged as the North-East Region respondents' major motivation in purchasing organic food produce (about 61%). The second motivation was the perceived higher quality (organoleptic characteristics) of organic produce (9%), followed closely by personal beliefs and values (8%) and the support of small-scale producers (7%). Only 4% of the subjects identified environmental protection as the main reason for their purchase decision. Curiosity (3%), ethics (1%) and protection of animals (0.3%) ranked as second-tier motivations. Last but not least, about 5% of the individuals surveyed did not buy any organic food items.

Figure 2 - The main motivation for purchasing organic agri-food sector products

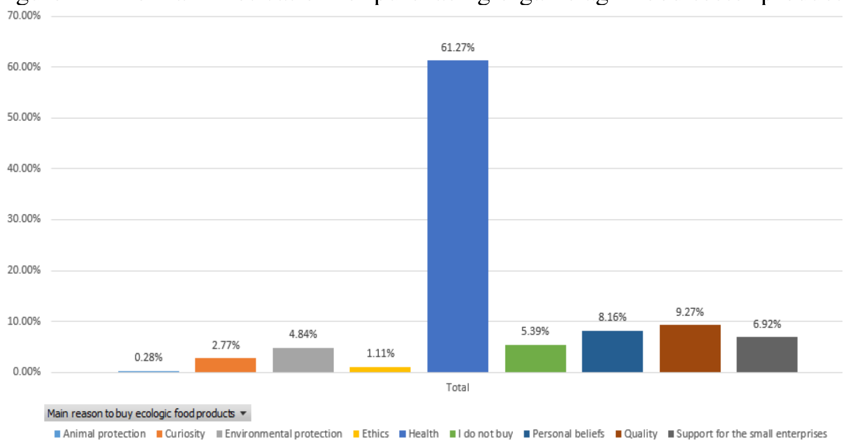
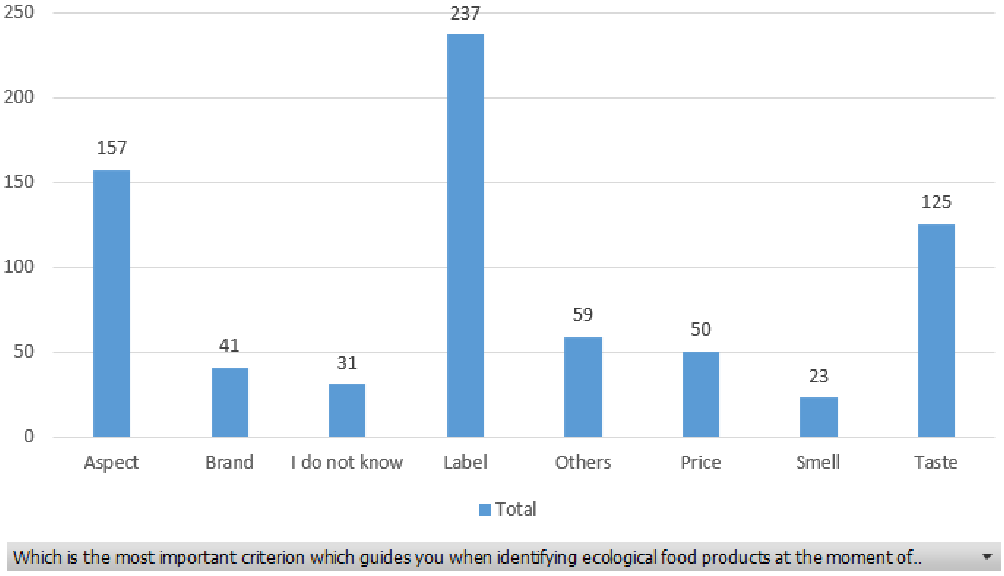
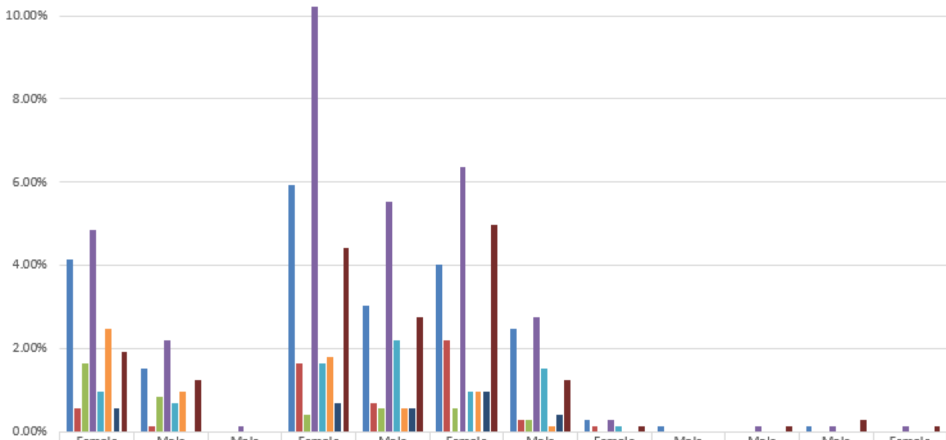


Figure 3 - The main criterion underlying the identification of organic food products



According to the sample examined, the key factor underlying the identification of organic products was the product label (33 %) at the time of purchase. Organoleptic characteristics - appearance (22 %), taste (17 %) and smell (3 %) were also important criteria. Somewhat surprisingly, only 7% of the respondents considered *price* to be the most important criterion, given that the North East Development Region ranked the third poorest region of the European Union. The brand (6%) was not considered to be a primary factor underlying purchase. While more than 8 % of the subjects surveyed found other criteria to be more relevant, 4 % were not able to answer this question.

Figure 4 - The main criteria underlying the decision to purchase organic foodstuffs by gender and age



	Female	Male	Male	Female	Male	Female	Male	Female	Male	Male	Male	Female
	18 - 25		18 - 25	26 - 40		41 - 65		over 65		over 65	under 18	under 18
Aspect	4.15%	1.52%	0.00%	5.95%	3.04%	4.01%	2.49%	0.28%	0.14%	0.00%	0.14%	0.00%
Brand	0.55%	0.14%	0.00%	1.66%	0.69%	2.21%	0.28%	0.14%	0.00%	0.00%	0.00%	0.00%
I do not know	1.66%	0.83%	0.00%	0.41%	0.55%	0.55%	0.28%	0.00%	0.00%	0.00%	0.00%	0.00%
Label	4.84%	2.21%	0.14%	10.24%	5.53%	6.36%	2.77%	0.28%	0.00%	0.14%	0.14%	0.14%
Others	0.97%	0.69%	0.00%	1.66%	2.21%	0.97%	1.52%	0.14%	0.00%	0.00%	0.00%	0.00%
Price	2.49%	0.97%	0.00%	1.80%	0.55%	0.97%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%
Smell	0.55%	0.00%	0.00%	0.69%	0.55%	0.97%	0.41%	0.00%	0.00%	0.00%	0.00%	0.00%
Taste	1.94%	1.24%	0.00%	4.43%	2.77%	4.98%	1.24%	0.14%	0.00%	0.14%	0.28%	0.14%

On evaluating the key factors underpinning the decision to purchase organically certified goods by age group and gender, it emerged that there was no significant disparity between males and females. The following characteristics can be noted:

- Roughly 16 % of respondents in the 26-40 age group (10 % female and 6 % male) considered the label as the key factor underlying the buying decision, the largest share of the sample surveyed.

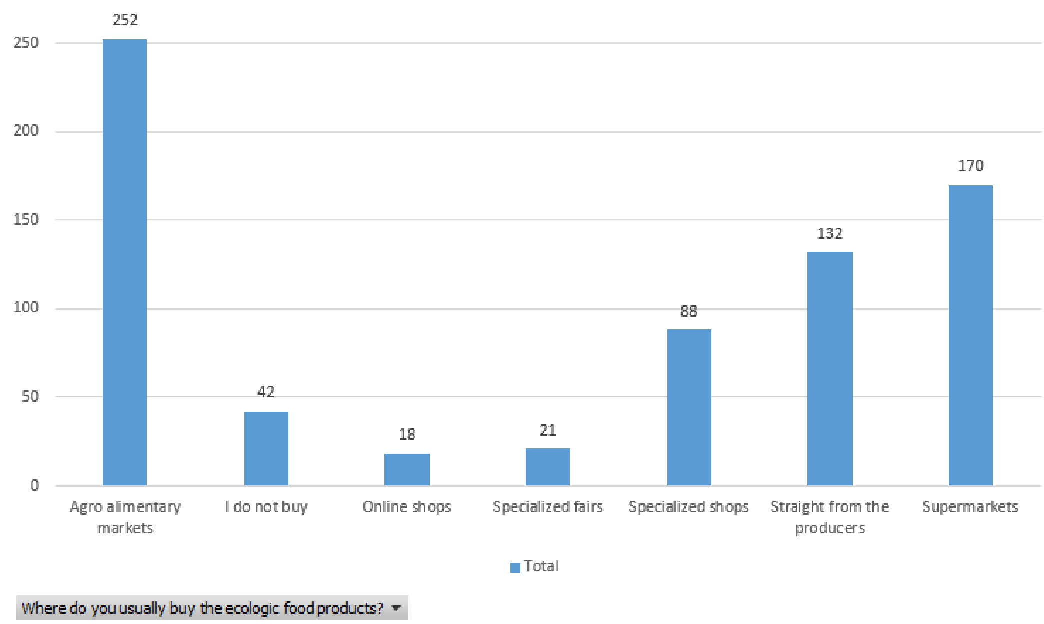
Appearance ranked next (6 % female and 3 % male), followed closely by taste (6 % female and 3 % male). The first three main criteria were thus identical for both men and women. The price criterion ranked fourth with female respondents (2 %) but was of secondary importance for male respondents (2 %).

- The same preferences were expressed by the 41-65 age group: 9 percent identified the label (6 percent female, 3 percent male), 7 percent indicated appearance (4 percent female, 3 percent male) and 6 percent taste (5 percent female, 1 percent male). With male subjects (1.5 %) the third largest percentage was defined by criteria other than taste. The trademark emerged as an important criterion in the purchase decision with female respondents (2 %) and taste with male respondents (1.5 %).

- In the 18-25 age group, the label (6.5 %) and appearance (6 %) constitute the first two key determinants in the buying decision (with a marked contribution from the female gender). Price (3.5 %) ranked third in the buying decision for this age group.

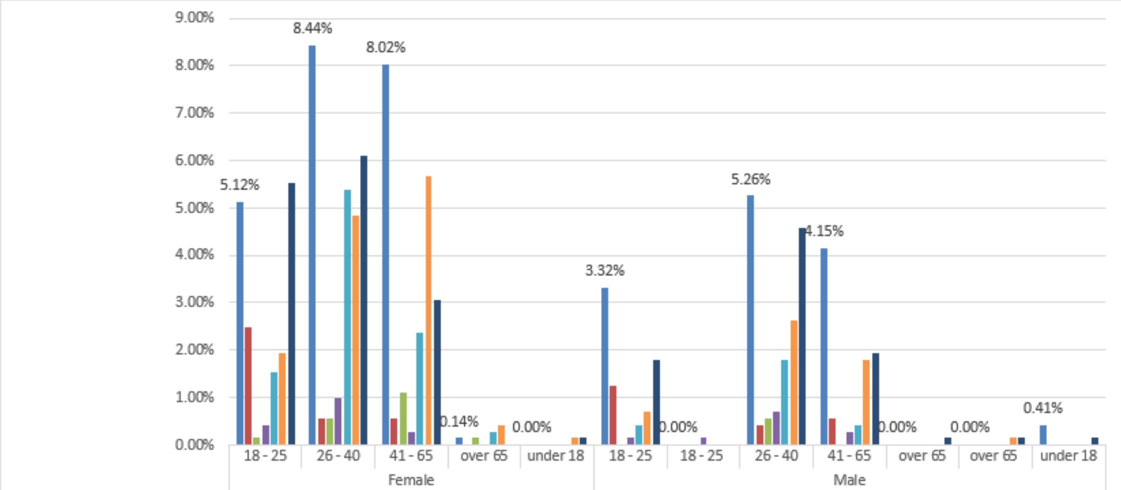
- While for young individuals under 18 years of age, taste was singled out as the key criteria in the choice of organically certified products, for subjects over 65 years of age, appearance and label were the most important criteria.

Figure 5 - Consumer ranking of the sources for the purchase of organic food items



On turning to the survey of the preferred source for the purchasing of organic food products in the North East Region, we noted that the agri-food markets (approximately 35 %) are the main source of purchasing for ordinary consumers. *Supermarkets* (24 %) were identified as the second choice by respondents (especially middle-aged people). More than 18 % of respondents chose to source their food items *directly from farmers*, while *specialist stores* (grocers, butchers, delis, etc.) have a market share of over 12 %. Interestingly, food fairs had a much lower share compared to other choices available (3 %), besides online shops (2 %), which registered the lowest market share among respondents (mainly young respondents).

Figure 6 - The preferred source for the purchase of organic food products by gender and age



	Female					Male						
	18 - 25	26 - 40	41 - 65	over 65	under 18	18 - 25	18 - 25	26 - 40	41 - 65	over 65	over 65	under 18
Agro alimentary markets	5.12%	8.44%	8.02%	0.14%	0.00%	3.32%	0.00%	5.26%	4.15%	0.00%	0.00%	0.41%
I do not buy	2.49%	0.55%	0.55%	0.00%	0.00%	1.24%	0.00%	0.41%	0.55%	0.00%	0.00%	0.00%
Online shops	0.14%	0.55%	1.11%	0.14%	0.00%	0.00%	0.00%	0.55%	0.00%	0.00%	0.00%	0.00%
Specialized fairs	0.41%	0.97%	0.28%	0.00%	0.00%	0.14%	0.14%	0.69%	0.28%	0.00%	0.00%	0.00%
Specialized shops	1.52%	5.39%	2.35%	0.28%	0.00%	0.41%	0.00%	1.80%	0.41%	0.00%	0.00%	0.00%
Straight from the producers	1.94%	4.84%	5.67%	0.41%	0.14%	0.69%	0.00%	2.63%	1.80%	0.00%	0.14%	0.00%
Supermarkets	5.53%	6.09%	3.04%	0.00%	0.14%	1.80%	0.00%	4.56%	1.94%	0.14%	0.14%	0.14%

Overall, there are no significant differences regarding the place of purchase between male and female customers. On assessing the place of purchase by gender and age, the following conclusions emerged:

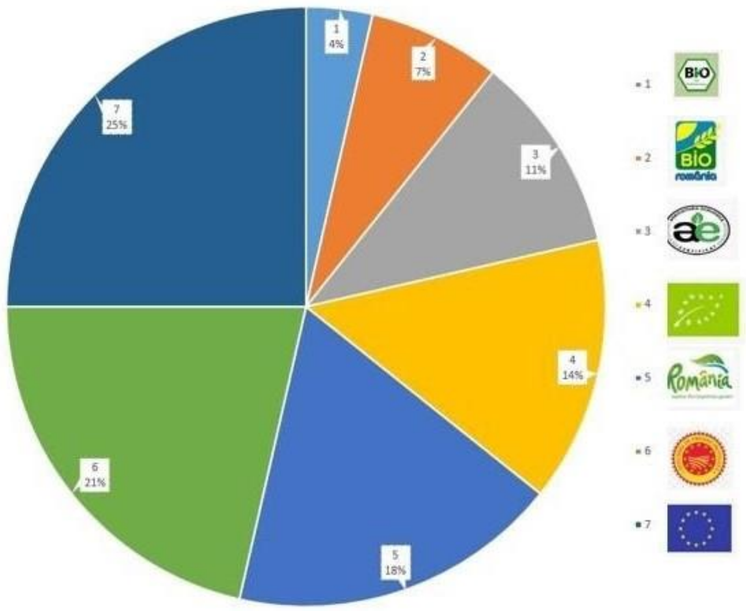
- In the 26-40 age group, which represents the largest share of the survey sample, about 14 % of the respondents (9 % female and 5 % male) indentified agri-food markets as their regular place of purchase of organic produce. Interestingly enough, supermarkets ranked second with approximately 11 % (6 % female, 5 % male). Approximately 7 % of respondents reported buying from specialist shops, with a marked disparity between females and males (more than 5 % for females and less than 2 % for males).

- Much as expected, in the 41-65 age group, which comprises the second largest age category of the total sample, agri-food markets were the main source of supply of organic products with approximately 12 % (8 % female, 4 % male), followed by producers, with (8 %), a slightly lower share (6 % female, 2 % male). Supermarkets (5 %) were the third option (3 % female and 2 % male). Less than 3% of the respondents in this age group bought from specialist stores.

- It is interesting to note that the 18-25 age group failed to indicate supermarkets as their favourite place of purchase of organic certified items (7 %, with an important contribution from females – 5 %). The first option of this age group was food markets (8.5 %) (5 % femaless and 3.5 % males). For young people, the third alternative (3 %) was directly from producers, followed closely by specialized stores.

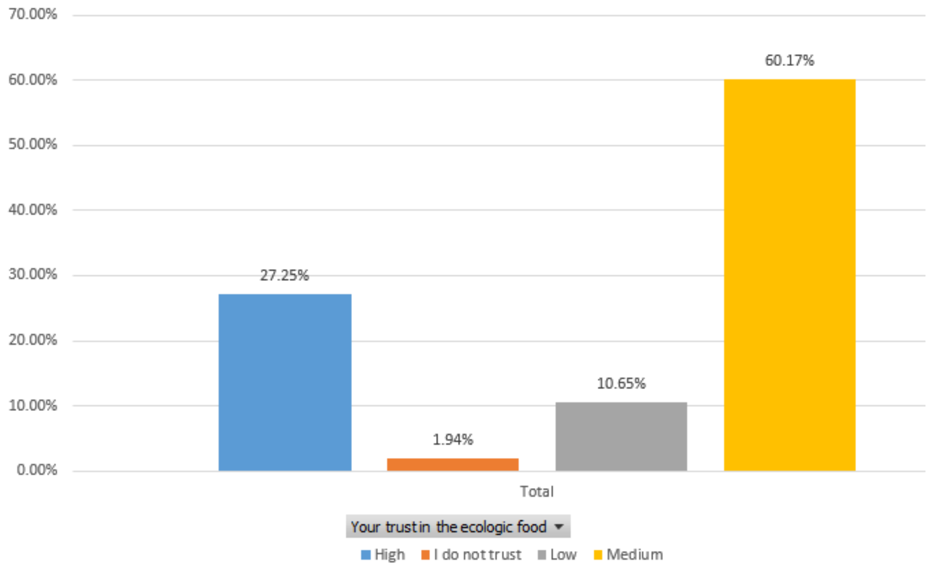
- While the total number of online purchases in Romania has increased significantly in recent years, the preference of respondents for online purchases of organic certified agri-food items is still rather small, mainly traceable to female customers.

Figure 7 - Ability to identify the specific logo of organic farming at European Union level



According to the collected data, only 14 % of the total number of individuals surveyed in the North-East region were able to recognize the organic food logo of the European Union. Most of the respondents mistook it for the E.U. logo (25 %), the logo of certified products D.O.P. (*Protected Designation of Origin*) (21 %) and even with Romania`s tourism promotion logo (14 %). A smaller percentage (11 %) represented the individuals who associated it with the *Ecological Agriculture* logo at the level of Romania (owned by the Ministry of Agriculture and Rural Development) as well as the logos of the organizations that certify organic producers.

Figure 8 - Consumer confidence in organic food products



The respondents clearly appreciated the reliability and value of organic food items: around 2⁄3 manifested an average level of confidence and over 27 % a high level of trust. Those who showed little to no confidence totaled around 13 %.

CONCLUSIONS

This paper provides detailed information on the behavior of consumers of organic food items in the North East Development Region of Romania on the basis of a demographic survey.

As in many other areas and in terms of organic agri-food products, the Romanian market differs to a large extent from Western European markets, both in terms of quantity, variety and accessibility of goods and in terms of culture and level of information and confidence of both consumers and producers.

The level of confidence of people in organic food in the North-East Development Region is strong. In addition, organic foods are deemed to be of higher quality than conventional goods.

Health is by far the biggest incentive of respondents (approximately 2⁄3) to purchase organic food. The second incentive is high quality, accompanied closely by personal values and support for small producers.

The key criteria on which the decision to buy eco certified products is based is the product label. At the same time, organoleptic characteristics - appearance, taste and smell - are essential criteria. Interestingly, only 7% of respondents identify the price to be the most important criterion, given the fact that the Northeast Development Region third poorest region in the European Union.

Agri-food markets, supermarkets, suppliers and specialized stores are the key outlets for the purchase of organic food items in the North-East region.

Most respondents confuse the "ae" (Organic Farming) logo with other logos. In this regard, we think it advisable to begin a campaign in support of this logo.

Overall, there are no major differences between females and males with respect to the preferred place of purchase, the main factor, the main criteria underlying the purchasing decision and the identification of the "ae" logo.

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