CHALLENGES OF EDUCATION OF YOUNG PEOPLE FOR RESPONSIBLE FOOD CONSUMPTION

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Ecology of nutrition is, in optics of theorists, a science having as stakes a ' sustainable ' nutrition and global food security. Currently has become a necessity to adopt a more global point of view on these issues. Sustainable consumption is proposing a new way of consumption, more respectful with natural resources, both upstream to production (quantity and nature of raw materials used) and downstream depending on the life cycle of products for what is related to the recycling of waste. In the first part of this article our interest was focused on defining some concepts already rendered in the practice of development challenges: urban development, ecology, ecology of nutrition, sustainable consumption. The term "consom'actor ' appeared due to emergence of sustainable development, favor to sustainable concept development expansion. This term specially covers issues of social responsibility of the consumer-citizen. "Consom'actor" is a consumer who is emancipating for products and ways of life that market conceive for him, becomes autonomous in his choices and he may, due to this fact, to contribute to the settlement of the consumer society. The term translates as well, the fact that the consumer has the ability, through its purchasing choices, to weigh upon the manufacturers offer and so becoming a veritable "actor" of the market. The second part of the article presents the results of a research among a sample of students who pursued the knowledge of their perceptions toward these concepts. The field research aimed to establish the level of the knowledge held by the students from the Faculty of Economics of the University "Valahia" Targoviste in the organic food sector and, on the basis of its results, were outlined some strands on the possibilities of modeling of the ecological consumer behavior. Sample characteristics (gender, specialization of the faculty, year of study and level of education of the parents), were selected to measure if opinions differ. The research aimed also to test a measuring scale for aggregation of the indicators, which measure purchasing behavior. Taking into account the recommendations of specialists in the field (Equité, 2004, p. 12) we consider that all the actors that comprise the system of interactions in which one can shape a sustainable consumption (public powers and organizations/communities, businesses, media and associations) have to cooperate actively and interactively to educate young people in the spirit of responsible consumption.

Key words: sustainable development, sustainable consumer, ecology, ecology of nutrition., organic food product

Classification JEL: D18, Q57, M31

Introduction

Specialists are unanimously agreed with the assertion that the stakes of sustainable development all converge towards the problem of consumption. The discussion of the evolution of traditional modes of consumption inherited from the industrial societies from the 19th and 20th centuries, has as central point of interest the sustainable development. The pressure that pushes on the need to renew natural resources, their unequal distribution in the world and the threat posed by the risk of political instabilities are as many factors behind the claim of a need for amending our living patterns, in which are also found the responsible and sustainable consumption patterns.

The Rio Declaration (1992) was marked: "*to reach the stage of sustainable development and a better quality of life for all people, states should reduce and eliminate the non viable modes of production and consumption and promote adequate population policy* " (principle 8 of the Declaration of Rio). In 2002, the World Summit for development held at Johannesburg strongly reaffirmed the importance of the transition to consumption and of production modes compatible with the preservation of our natural environment.

OECD (2002), based on the definition of sustainable development, included in the Brundtland Commission Report, defines "*sustainable consumption*" as "*the use of the services and products that meet essential needs and contribute to improving the quality of life of all reducing to minimum the quantities of natural resources and toxic raw materials used and the quantities of waste and pollutants throughout the life cycle of the product and services so that the needs of future generations can be met. "*

A more complete definition of sustainable consumption is given by the Association of Foreshadowing of Truly Sustainable Movement (ATefo, 2007, p. 90): "*sustainable consumption corresponds to the use of goods and services that provides personal and collective needs without being the only condition of the fulfillment of the individual. He relied on the quality of the environment and society, products, the use and expansion of the alternative forms of consumption as well as reducing the quantities of natural resources used to satisfy the needs that have been preserved for future generations. This can be integrated into existing structures and to open new ones* ".

A sustainable consumption reveals ecological and social imperatives. Ecological threat that hit our planet under the pressure of demographic growth is among the motivations of sustainable consumption.

The term "*ecology*" is currently used, with several meanings, which creates some ambiguity from the perspective of a speech focused on the scientific problem of the concept of sustainable development. Thus, there are three definitions of ecology: an etymological, one strictly related to the applied ecology and one used in the current sense. Etymological definition of the ecology has the meaning given by the father of this word, the biologist Ernst Haeckel, (year 1866), namely: "*the science of relationships between organisms and the surrounding world*" (FR. Wikipedia). Over time, the etymological meaning of ecology has been expanded, being generally accepted the following definition of this term: "*the science which studies the conditions of existence of living beings, the interactions and relationships between living beings, the interactions between living beings and their environment (ecosystems)"*. The second definition highlights environmental concerns related to the developments in climate, degradation of the living conditions of local or planetary, or human activities. This definition was promoted starting with the ecologist movement in the 1960s. In this context, ecology takes into account the human action on the environment in order to limit the negative and destructive consequences: pollution, structure of ecosystems, greenhouse effect, the planet's reheating, and deforestation. Some call it applied ecology.

1. Food ecological product: defining and sustainable consumption patterns integration

The term ecology of food was invented in 1986 by a group of nutritionists of the University of Giessen (Germany) as an interdisciplinary science that studies the global consequences of our food consumption modes and their impact on the environment in the longer or less long term (APSARES[77]). By conclusion, the ecology of nutrition represents the totality of such interactions in a systemic perspective, taking into account the stages of the nutrition system: production, harvesting, preservation, storage, transport, transformation, and processing, marketing, distribution, composition and food consumption. Within this chain, should be given attention to the problem of waste disposal. APSARES specialists propose seven determinants that define the ecology of food:

- Food should be mainly of vegetable origin;
- Food should promote the development of organic farming;
- Food should be produced locally, and in accordance with the cycle of the seasons;
- Food should be packed and/or organic conditioned;
- Food trade should be fair;
- Food should be tasty.

Ecology of food is based on agro-ecology, another concept within the general concept of sustainable development. Agro-ecology also can be defined on multiple angles of view (Ch. Bockstaller and d. Orth, 2013). Thus, on a first approach, agro-ecology is an applied science, respectively the application of the ecology science to the study, design and management of sustainable agricultural systems, based on diversified practices aimed at optimizing natural processes, favorable to the production and life resources. A second approach presents agro-ecology as a set of practices intended to increase production, while respecting natural balances, limiting the use of chemical inputs and the traditional polluting energies, favoring reusable material recycling. Finally, agro-ecology means a social movement struggling for sustainable agriculture, respectful to the economic environment, efficient, generator of human development by caring for food security and the health of populations.

[77] Association of Health Professionels for a Responsable Nutrition (France), established in 2008, on the initiative of health professionals in the field of nutrition (doctors, dietitians), having the vocation to work in resolving contemporary issues related to the so-called diseases of civilization "for the rich, the poor, undernourished, degradation of the environment.

The term "consom'actor ' appeared due to emergence of sustainable development, favor to sustainable concept development expansion. This term specially covers issues of social responsibility of the consumer-citizen. "Consom'actor" is a consumer who is emancipating for products and ways of life that market conceive for him, becomes autonomous in his choices and he may, due to this fact, to contribute to the settlement of the consumer society. The term translates as well, the fact that the consumer has the ability, through its purchasing choices, to weigh upon the manufacturers offer and so becoming a veritable "actor" of the market.

2. Ecological consumer behavior of the students from the Faculty of Economics of the University "Valahia" Targoviste

The field research aimed to establish the level of the knowledge held by the students from the Faculty of Economics of the University "Valahia" Targoviste in the organic food sector and, on the basis of its results, were outlined some strands on the possibilities of modeling of the ecological consumer behavior.

Sample characteristics (gender, specialization of the faculty, year of study and level of education of the parents), were selected to measure if opinions differ. The research aimed also to test a measuring scale for aggregation of the indicators, which measure purchasing behavior.

Methodological highlights of the research field

The topic of study

The aim of the research theme was to understand the perceptions that a consumer has about an "ecological food product" and to check the final convergence between the consumer expectations and the rigueur of a scientific definition of this term recommended by "experts".

General Community

The research community was represented by the ensemble of the students from the Faculty of Economics of the University "Valahia" Targoviste, the form of the study day.

Objectives of the research

- discovery of the spontaneous ideas that come in the consumers minds when they are evoking expressions such as "ecology" and "environmental protection", since the term ecology is very often limited to the protection of the environment;
- finding out the level of knowledge of the content "organic product";
- determining the extent to which respondents find the necessary information to identify an organic product and differentiate it from a common one;
- knowledge of the buying motivations of organic products;
- Consumers ' willingness to pay more to acquire an organic product.

Sampling method

It was used a quota sampling, the sample of 185 persons (10% of the population surveyed) reproducing the structure by sex and years of study.

The technique of data collection

Data collection was done by the method of the investigation. The technique used was that of the structured interview, to all the subjects being presented the same questionnaire.

The period of data collection

Data were collected during the period of April 13 to 23, 2013.

Processing of questionnaires and statistical analysis were conducted using the statistical package IBM SPSS.

2.2. Field research results

The first two questions in the survey questionnaire were opened, leaving the liberty of each interviewed person to respond spontaneously, so replies were obtained quite varied. According to similarities between them, the answers were grouped into a suitable topology as appropriate.

To the question 1-*What does the word "ecology" suggest to you?* -the responses have been grouped into five themes with very different weights, as can be seen from the table no.1.

Table No. 1 The evocations' term "ecology" by the interviewees

Evoked themes	% from the total mass of ideas
Respect of the environment	58.0
Natural character	16,0
Sustainability	13,5
The quality attributes of the product	8,5
The responsible way that characterizes the entire lifecycle of the product	4,0
Total of the expressed ideas	100,0

The environment respect, the natural character and sustainability are the three most representative themes of the speech evoked by students interviewed. The results reveal that respondents strongly associate the organic products with the environment respect (58% of the total cast ideas): organic product is, in the opinion of the respondents, "with *respect to the environment*", "*the product that doesn't destroy the planet*", "*doesn't pollute*", "*which takes into account the requirement of energy saving*". The respect for nature and life (sustainability) holds a share of almost 14%, being present in phrases such as: "*a product that respects the balance of nature as we discovered it*", "*closer to man and nature*", "*good for the Earth*", "*leaves no traces and does not impoverish the system*".

The natural character appears to be a characteristic of organic food (16%). Although we must stress the recurrence of the terms "nature" and "natural", in the opinion of the persons included in the sample investigated, the natural character of organic food product is related to the raw materials from which the product is made-"*is a product that uses natural raw materials*"- or is related to the manufacturing technology: " *a product that has not been treated with pesticides, a neutral product*", "*a product that did not use food additives E-style or whole range of chemicals about which no one knows yet what reactions will generate in the future in the state of health of consumers "*.

Question 2: „*How would you define the term ' environmental protection '?"* was also one with free answer, being identified three themes mentioned (table no.2).

Table No. 2 The evocations' term "*environmental protection*" by the interviewees

Evoked themes	% from the total mass of ideas
Nature protection	59,2
Recycling	8,1
Sustainability	11,2
Other	4,5
Unanswered	17,0
Total of the expressed ideas	100,0

The version with the greatest share is represented by the generic theme *"protection of nature"* (58.2% of all the answers), students assigning this term to the terms such as: *" healthy nature"*, *"cleaning"*, "*effects decrease of people on nature*". Other issues identified were "*sustainable development*" (11.2 %) and "*recycling*" (8.1%). We have to underline the significant share (17%) of interviewees who did not answered this question, share that will be confirmed also by the answers to another question, to which we will refer later, concerning the assessment of the respondents about their knowledge in our research.

Question 3: "*From your point of view, an " organic food " what is it?"* reveals that the majority of students (over 48%) correctly identified the version that essentially defines this kind of product as *"a food product that excludes any kind of synthetic chemistry, from raw material cultivation to sale"* (knowing that the use of chemicals in excess harms through pollution, the environment).

Table No. 3 Perceptions of an ' organic food product'

Terms appear	% of total respondents
A natural product	32,9
A product without E-s	12,9
A product that contains no preservatives	5,9
A product which excludes any kind of	

synthetic chemistry, from raw material cultivation to sale	48,3
I do not know	-
Total respondents	100,0

Of the 185 students interviewed, 133, representing a share of 72 % have confirmed that they have bought organic products. They were asked to specify the various reasons that motivate their purchases (table no.4).

Table No. 4 Purchase motivations of organic products

Reasons to purchase	**% of total responses** *(multiple choice)*
By curiosity	6,8
Environment protection	26,5
Health protection	39,4
Taste reason	17,4
Because they are fashionable	9,1
Others	0,8
Total reasons	100,0

At a global level, it can be remarked that almost three-quarters of respondents made reference to the rather "*selfish motivations*", related to "*health*" (39.4%), "*taste*" (17.4%), "*because they are fashionable*" (9.1%) or "*by curiosity*" (6.8%). "*Taste*" was associated with the theme "*quality*". The concern for "*environment protection*", representing more than a quarter of all the responses, indicates a relatively modest share of so-called "*altruistic motivations*", pointing to a speech with meaning: "*I think that we all have a duty like a good citizen to save the planet*".

For an important segment of the people interviewed (28%) the brakes were powerful enough, because the act of buying an organic product could not be carried out. Thus, the respondents have mentioned in a large part (40%) the lack of confidence in producer reputation and in the benefits that could be supplied by a consumption of organic food products (table No.5).

Table No. 5 Reasons why not have been bought organic products

Reasons of not buying	**% of total responses** ***(multiple choice)***
I did not know that there are	13,8
I did not have confidence in the benefits	19,0
I had no confidence in producers	20,7
Price	15,5
We did not find in the store	27,6
Other	3,4
Total reasons	100,0

The absence of organic products in stores (due, in part, to a still lower quantity offer comparative with the emergence demand for these products) is a question not to be neglected from the perspective of market growth potential. For some respondents (15.5%), the high price of organic products represents a halt in buying them.

In making the decision to buy a product, information is an indispensable step. The more it becomes necessary in the act of choosing an organic product as an alternative to a same product manufactured by a classic recipe. Among commercial sources which provide information that is necessary and indispensable for finding organic alternatives that are found on the market, include labels on product packaging. That's why it was appropriate to include also in the questionnaire a question related to the frequency of the reading by the buyer of the information given on the label of a food product packaging. Survey data relating to this question (table no. 6) are relevant to emphasize the need for education of young people for eating healthy and convergent with the paradigm of sustainable consumption.

Table No. 6 Frequency buyer's reading product label information
% per line

Information given on the label of the product	Always	Sometimes	Never
The expiry date of the product	85,9	14,1	-
The ingredients of the product	22,4	75,3	2,3
If it is natural or chemically	23,5	64,7	11,8
The conditions under which it was packed	16,5	44,7	38,8
The method and conditions of storage	29,4	58,8	11,8
Producer company/brand	69,4	28,2	2,4

Young students surveyed regularly read on the labels of the products bought only their expiry date (86% of respondents indicated that "always" are careful at this aspect) and producer company (69.4% are pursuing a particular manufacturer).

Marginalizing the importance of some information, such as "the conditions under which the product was packed", "product ingredients ", "if it is natural or chemically modified", "the method and conditions of storage of the product" may explain the precariousness knowledge of the young people about scientific, healthy eating. Incidentally, the question "do you believe the notions of ecology that you own as being enough?" over 70% of the students interviewed responded "no".

Statistical analysis of contingency tables based on the chi-square test shows that opinions do not differ according to gender or year of study.

The research allows verifying the measuring construction scale "behavior before purchasing", which refers to the checking of the product label. Scalar analysis applied to the table no. 6 shows that the six items are closely related and can be aggregated into a linear additive indicator, which can be used in future analyses.

Cluster analysis has highlighted two distinct segments, based on the questionnaire answers:

Type 1
- Represents 45.9 % of the sample;
- Consider more an ecological product as an "organic product";
- Have bought more ecological products;
- Consider their prices as affordable;
- Are willing to pay more to buy it;
- Have sufficient knowledge about these.

Type 2
- Represents 54.1 % of sample;
- Consider more an ecological product as "a product without E-s" and "a product which does not contain preservatives";
- Have not bought (or do not know) organic products;
- Consider their prices as big (or can not appreciate);
- Are not willing to pay more to buy it (or do not know);
- Cannot assess whether knowledge is sufficient.

Conclusions

This research carried out indicates that the students from the Faculty of Economics of the University "Valahia" from Targoviste do not possess sufficient information in the field of ecology, most of them appropriating the term in a simplistic sense, away from paradigmatic meaning promoted by theoretical works on the subject. In terms of organic food, most respondents have not formed criteria of choice of organic food, and opinions differ according to gender or year of study.

Taking into account the recommendations of specialists in the field (Equité, 2004, p. 12) we consider that all the actors that comprise the system of interactions in which one can shape a sustainable consumption (public powers and organizations/communities, businesses, media and associations) have to cooperate actively and interactively to educate young people in the spirit of responsible consumption. The stake would be for every young person to become a "consom'actor", which would mean that he should be aware that it is important both for him and for society to:

• know how to keep them informed: learn to read and recognize a label, to seek information about the conditions of manufacture of the product;
• inform to convey to colleagues, friends, family his own opinion about his own experiences;
• react to the information received through the media, through his observations, to intervene with constructive points of view;
• address to the retail stores: to use the suggestion boxes (available in the stores) and request responses from sellers on the origin of the product he wants to buy, manufacturing conditions, etc.;
• consume fair.

By conclusion, to educate responsible consumer means alike (Equité, 2004, pp 1-6):
• To give rise to the consumer interest to make an effort to understand "the world" and to allow him to have a free and responsible behavior.
• To inform and shape consumers aware, lucid and demanding, leaving them to consume not only according to the criteria quality-price, but according to ethical values, social and environmental.
• To educate the consumer so that he may think about the consequences of his acts.
• To harness alternative production and sustainable consumption already existing.

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