



How Traditional is the European Union in the Agro-food Production?

Silviu STANCIU*

ARTICLE INFO

Article history:

Accepted December 2015

Available online December 2015

JEL Classification

L11, Q110

Keywords:

Food, Market, Concentration

ABSTRACT

The paper proposes an analysis of the traditional products market on the European level, with focus on the concentration degree calculated with the Herfindahl-Hirschman methods and the Gini-Struck Coefficient. One described and analysed the main categories of traditional produce encountered on the European community and extra-community level, a special section being dedicated to Romania. The concentration of the EU community market in the domain of traditional agro-food production is moderate, with growth trends, which requires an appropriate approach from the part of small and medium enterprises. The market of traditional products in Romania, characterised by a lower concentration degree compared to the community market, may be accessible to domestic producers.

© 2015 EAI. All rights reserved.

1. Introduction

Traditional products are niche foods, realised in a certain geographic area, following a traditional recipes. The production and / or processing modality comprises a traditional technological procedure, based on local raw materials, without food additives, which makes the difference compared to similar produce belonging to the same food category. The traditional food production may be an attractive field for the national and European business environment.

2. Literature review

The manufacture of traditional produce valorises the experience, tradition, customs transmitted from one generation to the next, in some cases related to religion or folk beliefs (Weichselbaum and Benelam, 2009). The consumption of traditional foodstuffs usually takes place in the production geographic areas, being traded locally and destined to the population of the respective zone (Saunders, 2010). Although there are not always formal recipes and scientifically argued manufacture technologies, traditional products are perceived by consumers as healthy, appetising and tastier than the usual food products, but also more expensive than the latter (Popa, 2011). Considered more nutritionally balanced than the foods produced industrially, traditional foods are usually prepared in the home and valorise recipes transmitted by ancestors, being based on ecologic, fresh and summarily processed ingredients (McGruther, 2014).

Globalisation and the change of lifestyle may lead to their disappearance, and measures are needed for their preservation as categories of products specific to the European history and cultural patrimony. Moreover, the purchase of traditional products is perceived by consumers as a voluntary act, less affected by impulse than the purchases made at the supermarket (Sampaio et al, 2011). The manufacture of traditional products may contribute to the diversification of the food products supply traded on the EU community market. Keeping in mind they are preponderantly realised on the small manufacture of micro-factory level, in general under the form of family businesses, encouraging traditional producers may encourage the local business environment in the struggle against the competition of large industrial food producers (Spillan and Parnell, 2006).

Smith, Maye and Ilbery (2014) show that the market of traditional food products is adapting to the rapid retail changes, in accordance with the geography, history and spatial and temporal tensions between traditional and modernised systems of fresh food supply. In Romania, the production of traditional produce for sale is at the beginning, the Romanian producers making great efforts for filling the gap to the other EU member states. (Stanciu, 2014).

3. Production of traditional foods and beverages on the European level

Traditional foods and drinks, along other specific customs, were produced for long periods of time in certain regions and communities, being part of the history and patrimony of the areas. The development of

* "Dunarea de Jos" University of Galati, Romania. E-mail address: sstanciu@ugal.ro (S. Stanciu)

the traditional food output constitutes an EU community strategy, regulated by strict manufacture and sale criteria. The differentiation of traditional character is made according to strict criteria of promotion and protection of the names of controlled food products (table no. 1).

Table 1. Assignment of quality signs to traditional products

Foodstuffs registered	Criteria for name assignment	Logo
PDO – Protected Designation of Origin	the production, processing and preparation of foodstuffs take place in a determined geographic area, according to recognised and certified methods	
PGI- Protected Geographical Indication	the foodstuffs related to a geographic areas where at least one of the manufacture – processing – preparation stages takes place	
TSG – Traditional Specialties Guaranteed	traditional manufacture method or traditional composition of a product	

Source DOOR Database, EC, 2015

The European marking-tagging system of traditional foods is based on the assignment of distinctive signs related to origin and quality, guaranteeing and protecting over 1000 registered names (Stanciu, 2014). The registration of the trade name of the traditional farming or food product under one of the three quality marks secures the applicant the right of ownership over the protected denomination. According to the European Commission EC (2010), the community market of DOP and IGP farming products reached sales of 14.2 billion euros in 2007. The research included 820 products from the European register of geographic indications for farming produce, including beer, considered a food category, but excluding wine and other alcoholic drinks. According to the DOOR-CE European database, in 2015 a number of 1317 traditional foodstuffs were registered in Europe. As structure, the protected geographic indication products are predominant, 1297 positions being registered (594 PDO and 646 PGI) and only 57 TSG-registered products (figure no.1).

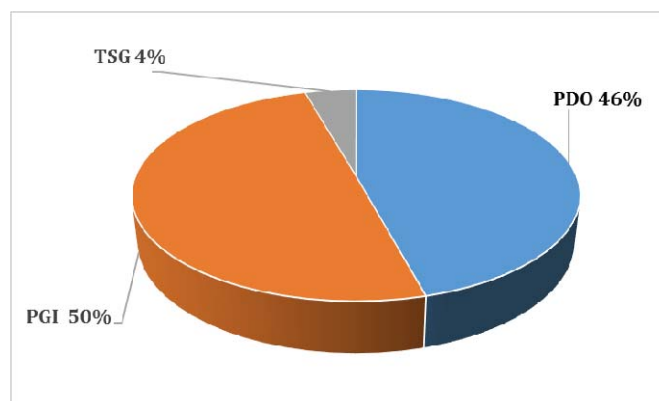


Figure 1. EU community traditional products per categories

Source: Author, using DOOR Database, EC, 2015

Most PDO-PGI traditional products are from the group of vegetables – fruits / processed products based on vegetables-fruits, chesses, meat and meat-prepared foods, bread and bakery products (table no. 2). As for their origin, the majority of protected products are from Italy (297), followed by France (241), Spain (204), Portugal (138), Greece (106) and Germany (96). Romania is present with two products filed in November 2013 for DOP registration (“Telemea” cheese of Ibănești and “Novac” smoked cheese of Bîrsei Country) and an IGP-registered product, “Magiun (marmalade) of Topoloveni”, registered in April 2011.

Table 2. Categories of traditional products registered on the DOOR Database (EU and non EU)

Class/Group of traditional food products	Registered products	Group of traditional products	Registered products
1.1 Fresh meat	147	1.8. Other food products (Annex I)	53
1.2 Meat products	157	2.1 Beer	20
1.3 Cheeses	226	2.4 Bread, pastry, cakes, confect. etc.	89
1.4 Other products of animal origin	41	2.5 Natural gums/resins	2
1.5 Oil and fats	127	2.6 Mustard paste	2
1.6 Fruits, vegetables, cereals and processed products	393	2.7 Pasta	7
1.7 Fresh fish/aquatic products	50	3.2 Essential oils	4
Other products (flower/plants 3, wool 1)	4	3.1 Hay	1

Source: Author, by processing DOOR data, 2015

In the field of alcoholic drinks, the Agriculture and Rural Development Directorate of the European Commission (2014), through the Register of designations of origin and geographical indications protected in the EU, provides statistic information related to the number of products registered in the field of wine and vineyard products. On the moment of the research in the eBacchus database, there were over 2885 traditional wine- vineyard products registered, of which, from the European Union, a number of 1750 products (1291 wines with DOC-PDO protected origin name and 459 products with PGI geographic origin indication), the rest coming from extra-community areas.

The distilled alcoholic beverages with protected geographic name are presented on the specialised EU community website E- Spirit-Drinks. The database comprises 334 products, of which 332 registered by the EU Community states.

4. Structural analysis of the traditional products market in Europe

The characterisation of the uniformity degree of products geographic distribution by European states may be done in different variants. In the methodological sense, the most frequently used are the method of the Gini -Struck coefficient or the method of the Herfindahl- Hirschman coefficient (Savoie, Crăciuneanu and Ţaicu, 2010).

In order to measure the uniformity degree, Corrado Gini forwarded the relation (1):

$$GS = \sqrt{\frac{n \sum g_i^2 - 1}{n - 1}} \quad (1)$$

where, g_i - weight of traditional output realized in country i , calculated with the relation (2):

$$g_i = -\frac{p_i}{p} \times 100 \quad (2)$$

n - number of countries analysed

p_i - traditional output realised in country i

p - total traditional output made in EU

The Herfindahl-Hirschman index is used practically for the same purpose as the Gini- Struck Coefficient, benefiting from a higher promptness in the measurement of the activity diversification degree for the diverse market structures and being calculated with the formula (3):

$$HH = \sum_{i=1}^n g_i^2 \quad (3)$$

The distribution of the traditional agro-food output by European states is shown in table 4.

Table 4. Distribution of traditional food products by countries

European Country	Traditional Foods (TF)			TOTAL	Pi			
	PDO	PGI	TSG		% PDO	%PGI	% TSG	% TF
AT	9	6	0	15	1.52	0.93	0.00	1.16
BE	3	10	5	18	0.51	1.55	8.77	1.39
BG	0	2	4	6	0.00	0.31	7.02	0.46
CY	0	3	0	3	0.00	0.46	0.00	0.23
CZ	6	23	4	33	1.01	3.56	7.02	2.54
DE	11	73	0	84	1.85	11.30	0.00	6.48
DK	0	6	0	6	0.00	0.93	0.00	0.46
EL	75	27	0	102	12.63	4.18	0.00	7.86
ES	98	83	4	185	16.50	12.85	7.02	14.26
FI	5	2	3	10	0.84	0.31	5.26	0.77
FR	97	128	1	226	16.33	19.81	1.75	17.42
HR	4	4	0	8	0.67	0.62	0.00	0.62
HU	6	7	1	14	1.01	1.08	1.75	1.08
IE	1	4	0	5	0.17	0.62	0.00	0.39
IT	164	112	2	278	27.61	17.34	3.51	21.43
LT	1	4	2	7	0.17	0.62	3.51	0.54
LU	2	2	0	4	0.34	0.31	0.00	0.31
LV	1	1	3	5	0.17	0.15	5.26	0.39
NL	5	5	3	13	0.84	0.77	5.26	1.00
PL	8	19	9	36	1.35	2.94	15.79	2.78
PT	64	68	1	133	10.77	10.53	1.75	10.25
RO	0	1	0	1	0.000	0.155	0.000	0.08

European Country	Traditional Foods (TF)			TOTAL	Pi			
	PDO	PGI	TSG		% PDO	%PGI	% TSG	% TF
SE	2	3	2	7	0.34	0.46	3.51	0.54
SI	8	11	3	22	1.35	1.70	5.26	1.70
SK	1	9	7	17	0.17	1.39	12.28	1.31
UK	23	33	3	59	3.87	5.11	5.26	4.55
Total	594	646	57	1297	100	100	100	100

Source Author, personal calculations

The data were selected from the DOOR EC website, statistically processed and interpreted. We calculated the weight of traditional output in the EU ensemble, by member states, and the concentration indicators H and GS, by applying the mathematical relations 1-3.

The distribution of traditional products among the member states is varied, ranging between 0.08 % in the case of Romania, with one single registered traditional product, and 21.4% in the case of Italy, the country present with the highest number of products registered in the e DOOR database. The non-European country are weakly represented in the European database dedicated to traditional products, with only 20 registered products, of which half belong to China. Thailand comes second, with 3 PGI registered products, the rest of 7 products being unitarily distributed among other states.

Table 5 presents the calculated values of the GS and HH indices for three categories of traditional products registered in the e DOOR data base and the entire analysed domain. The registered values range between 0.22 and 0.40. The comparative analysis of the 3 categories of products reveals a higher degree of concentration of the PDO products market compared to the other categories of products and to the cumulative values. A lower degree of market concentration is recorded in the case of TSG products. The EU market is not excessively concentrated, as the relative limits of 0.40 for the Gini-Struck coefficient or 0.44 for the Herfindahl- Hirschman coefficient are not exceeded, values mentioned by Savoiu, Crăciuneanu and Țaicu (2010).

Table 5. Concentration indices of the EU traditional agro-food output

	HH index	Gini Struck Index
PDO	0.40	0.36
PGI	0.34	0.29
TSG	0.28	0.22
Total TF	0.35	0.30

Source: Author, personal calculations

The concentration degree of the traditional agro-food market in Romania

In Romania the attestation of traditional products is made based on a detailed documentation, comprising the full name of the product, a minute description, technical information related to the manner of obtaining and the raw materials/ingredients used, packing modalities, production capacity realised, procedures of authenticity verification, specificity elements. The producer will show evidence related to the notoriety of the product in the origin zone. The procedure of awarding the traditional product attestation is laborious and involves a set of initial and periodical controls for the observance of the legal conditions. After obtaining the attestation, the producer is recorded in the National Register of Traditional Producers (RNPT), and in the County Register of Traditional Producers, respectively. All the Romanian traditional products will be marked with the national logo and will be accompanied at sale by the Xerox copies of the attestations of RNPT registration, in accordance with the MADR regulations (2014).

In the evolution of the traditional products market in Romania we distinguish two stages:

- The period 2005 -2013, more permissive from the legislative viewpoint, when the registration of the traditional products was regulated by Order no. 690/2004; it was characterised by the registration of 4402 traditional products, many of them belonging to industrial manufacturers.
- The period after December 2013, when the regulation of the sector is realised through the Common Order 724/2013 of MADR, MS and ANPC, correlated with the EU community legislation, which imposes strict rules for awarding the traditional character.

In December 2015 a number of 513 products were registered in RNPT, having as main classes: meat and meat products, dairy products, vegetables – fruits, bakery products, beverages. The recorded fish and traditional fishery products have lower percentages. The distribution per categories of products registered in 2015 is shown in figure no. 3.

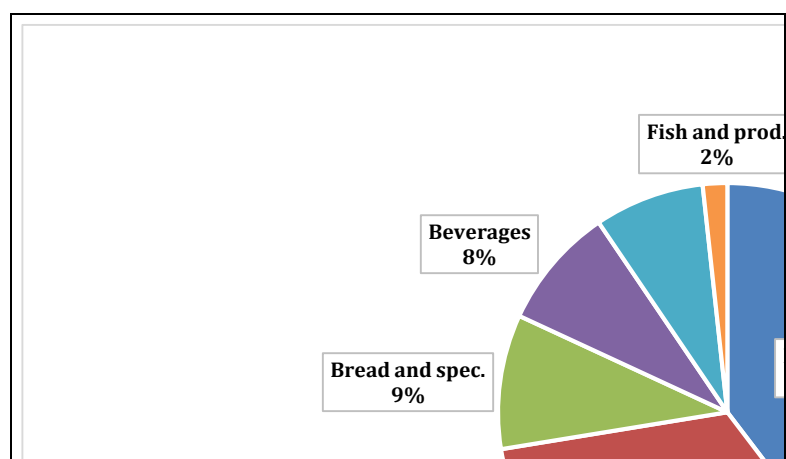


Figure 3. Distribution of domestic traditional products (2015)

Source: Author, by processing MADR data, 2015

In the past 4 years, the number of traditional producers has been systematically decreasing, dropping from 440 in 2012, to 172 in 2013, and to 152 in 2015, almost 20% of the total products registered at the beginning of the analysed period. The distribution of producers is not uniform in Romania, the majority being registered in the Braşov, Argeş and Maramureş counties and the less numerous in Olt and Prahova (figure no. 4).

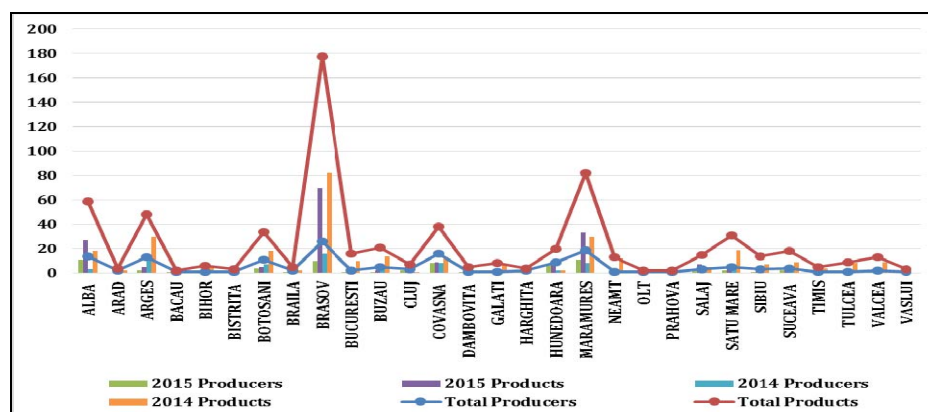


Figure 4. Evolution of registered traditional producers and products by counties in Romania.

Source: Author, by processing MADR data, 2015

The weight of the traditional products and producers by counties is presented in table no. 6.

Table 6. Distribution of traditional producers and products by Romania's counties

County	Total (2015)		2015				2014			
	Producers	Products	Producers	Pi (%)	Products	Pi (%)	Producers	Pi (%)	Products	Pi (%)
AB	14	45	11	15.28	27	1.34	3	3.75	18	5.82
AR	2	2	0	0	0	0	2	2.50	2	0.65
AG	13	35	2	2.78	5	0.25	11	13.75	30	9.71
BC	1	1	1	1.39	1	0.05	0	0	0	0
BH	1	5	0	0	0	0	1	1.25	5	1.62
BN	1	2	1	1.39	2	0.10	0	0	0	0
BT	11	23	4	5.55	5	0.25	7	8.75	18	5.82
BR	2	3	1	1.39	1	0.05	1	1.25	2	0.65
BV	26	152	10	1.39	70	3.48	16	20.00	82	26.54
B	2	14	1	1.39	4	0.20	1	1.25	10	3.24
BZ	5	16	1	1.39	2	0.10	4	5.00	14	4.53
County	Total		2015				2014			
	Producers	Products	Producers	Pi (%)	Products	Pi (%)	Producers	Pi (%)	Products	Pi (%)
CJ	3	4	2	2.78	3	0.15	1	1.25	1	0.32
CV	16	22	8	1.11	9	0.45	8	10.00	13	4.21
DB	1	4	1	1.39	4	0.20	0	0	0	0
GL	1	7	0	0	0	0	1	1.25	7	2.26
HR	2	2	2	2.78	2	0.10	0	0	0	0

HD	9	11	7	9.72	9	0.45	2	2.50	2	0.65
MM	19	63	11	15.28	33	1.64	8	10.00	30	9.71
NT	1	12	0	0	0	0	1	1.25	12	3.88
OT	1	1	0	0	0	0	1	1.25	1	0.32
PH	1	1	0	0	0	0	1	1.25	1	0.32
SJ	3	12	2	2.78	7	0.35	1	1.25	5	1.62
SM	5	26	2	2.78	7	0.35	3	3.75	19	6.15
SB	3	11	1	1.39	4	0.20	2	2.50	7	2.26
SV	4	14	2	2.78	5	0.25	2	2.50	9	2.91
TM	1	4	0	0	0	0	1	1.25	4	1.29
TL	1	8	0	0	0	0	1	1.25	8	2.59
VL	2	11	1	1.39	2	0.10	1	1.25	9	2.91
VS	1	2	1	1.39	2	0.10	0	0	0	0
Total	152	513	72	100	204	100	80	100	309	100

Source Author, by using MADR Data, 2015

On the level of Romania's counties, the calculated values of the GS and HH indices, respectively, are forwarded in table no. 7.

Table 7. Concentration degree of traditional output in Romania

	HH index		Gini Struck Index	
	Producers	Product	Producers	Product
2014	0.31	0.33	0.27	0.30
2015	0.31	0.38	0.27	0.35
TOTAL	0.29	0.35	0.25	0.32

Source author contribution

The concentration degree of the agro-food products market in Romania is slightly lower compared to the EU community market, the calculated values being nevertheless close to the limits mentioned for a concentrated market by Savoiu, Crăciuneanu and Țaicu (2010). The limited development of the domestic food sector may allow the access of EU producers, although the internal consumers' preferences go toward national produce. On the level of Romania, the weight of traditional products represents only 2.5% of the total sales, compared to the EU-27 average which is around 6% (Gheorghe, Nistoreanu and Filip, 2013). The correlation of the traditional food production with tourism or traditional food stores may constitute a successful strategy of the domestic sector, which has to face the competition of EU large producers and traders.

Conclusions

The EU community market of traditional products is dynamic and complex, reflecting the heterogeneity of the European Union's population. Tradition, including in the food field, must be preserved as a factor of regional cultures' differentiation and as a reaction to globalisation. Most of the traditional products registered on the EU level come from Latin –origin countries (Italy, France, Spain, Portugal and Romania). Although the Romanian people has a long history, traditions and a rich cultural patrimony, the niche of traditional products is insufficiently exploited by the domestic food producers. Romania is definitely ranked on inferior positions when it comes to the registration and trade of traditional products on the European or national market compared to the Western countries or to neighbouring countries without historic continuity, with smaller territory and less numerous populations. The market of national traditional products does not exhibit the features of a concentrated market, which may allow the penetration of SME's producers and their products, but they need measures of adapting the marketing policies of food SMEs for accessing the segments of consumers interested in these products.

References

1. European Commission, (2015), Database of Origin & Registration DOOR, retrieved from <http://ec.europa.eu/agriculture/quality/door/list.html>, [accessed 05.12.2015].
2. European Commission, (2015), E-Bacchus Database, retrieved from <http://ec.europa.eu/agriculture/markets/wine/e-bacchus/index.cfm?event=pwelcome&language=EN>, [accessed 05.12.2015].
3. European Commission, (2015), E-SPIRIT-DRINKS, retrieved from <http://ec.europa.eu/agriculture/spirits/index.cfm>, [accessed 05.12.2015].
4. MADR - Ministerul Agriculturii si Dezvoltării Rurale, (2015), Registrul național al produselor tradiționale (RNPT) conform ordinului nr. 724 din 29 iulie 2013 privind atestarea produselor tradiționale, retrieved from <http://www.madr.ro/industrie-alimentara/produse-traditionale-romanesti/implementarea-ordinului-nr-724-2013-privind-atestarea-produselor-traditionale.html>, [accessed 28.12.2015].
5. Popa, C., (2011), Chiar stim adevarul despre produsele traditionale ?, în Piața, Revista bunurilor de larg consum [20.04.2011], retrieved from <http://www.revista-piata.ro/index.php?c=newslist&m=detaliu&id=6414>, [accessed 01.12.2015].
6. Săvoiu, G., Crăciuneanu, V., Țaicu, M., (2010), O metodă statistică nouă de analiză a concentrării sau diversificării piețelor, Revista Română de Statistică 2/2010, retrieved from http://www.revistadestatistica.ro/Articole/2010/A3ro_2-2010.pdf, [accessed 05.12.2015].

7. Spillan, J., Parnell, J., (2006), *Marketing resources and firm performance among SMEs*, *European Management Journal*, 24(2), pp. 236-245.
8. Stanciu, S., 2014, *Is the tradition profitable for Romanian food producers?*, in "Crafting Global Competitive Economies: 2020 Vision Strategic Planning & Smart Implementation", The 24th International-Business-Information- Management-Association Conference, Milan, Italy, (Nov 06-07, 2014), (Ed. Soliman, KS), vol. I-IV, pp. 1647-1652.
9. Weichselbaum, E, Benelam, B, (2009), *Traditional Foods in Europe*, Synthesis report No 6, Contract FOOD-CT-2005-513944, retrieved from http://www.eurosfair.pr.fr/7pc/documents/1263815283_traditional_foods_can_sustain_european_cultures.pdf, [accessed 20.12.2015].
10. Smith, J., Maye, D. & Ilbery, B. (2014). *The traditional food market and place: new insights into fresh food provisioning in England*. *Area*, 46(2), pp. 122-128. doi: 10.1111/area.12083.
11. Ministerul Agriculturii și Dezvoltării Rurale, Ministerul Sănătății și Autoritatea Națională pentru Protecția Consumatorilor, (2013), *Ordinului comun nr. 724/1082/360/2013 privind atestarea produselor tradiționale*, retrieved from <http://www.madr.ro/docs/ind-alimentara/produse-traditionale/ordin-privind-atestarea-produselor-traditionale.pdf>, [accessed 02.12.2015].
12. MADR Ministerul Agriculturii și Dezvoltării Rurale, Direcția Generală Industrie Alimentară. (2014), *Ghid de bune practici atestarea produselor tradiționale*, retrieved from <http://www.dajsi.ro/doc/020215/ghid-de-bune-practici-atestare-produse-traditionale.pdf>, [accessed 02.12.2015].
13. Sampaio, J.,F., Cunha, L.M. ,4; de Moura, A., P., Rocha, A., (2011), *Valuation of fresh produce at Local Markets – consumer's perspectives*, IJUP 2011, retrieved from <https://repositorio-aberto.up.pt/bitstream/10216/62398/2/6083.pdf>, [accessed 15.12.2015].
14. Gheorghe, G., Nistoreanu, B.G., Filip, A., (2013), *Produsele tradiționale – vectori ai dezvoltării durabile pe piețele regionale și naționale*, *Amfiteatru Economic*, XV (7), pp. 467-480.
15. Mc Gruther, J., (June 2014), *A Traditional Foods Movement: The Balance of Healthy Eating*, the review of book *The Nourished Kitchen* (Ten Speed Press, 2014), in *Mother Earth New*, [online], retrieved from www.motherearthnews.com/real-food/food-policy/traditional-foods-movement-ze0z1406zsau.aspx, [accessed 15.12.2015].
16. Saunders, R., (October 28, 2010). "What Are Traditional Foods?", *Agriculture Society*, retrieved from <http://agricultureociety.com/politics-and-food/what-are-traditional-foods>, [accessed 15.12.2015].