Annals of *SPIRU HARET* University

Economic Series

Volume 5 (14), issue 4, 2014

EDITURA FUNDAȚIEI *ROMÂNIA DE MÂINE*
BUCUREȘTI, 2014

©*România de Mâine*, Foundation Publishing House
http:/www.edituraromaniademaine.ro/

Publishing House recognized by the *Ministry of Education, Research, Youth and Sports* through the *Higher Education National Council of Research (CODE 171)*

ISSN: 2068-6900

CUPRINS

RECENZII

CONTENTS

BOOK REVIEW

TABLE DES MATIÈRES

COMPTES RENDUS

HOW FUNCTIONAL MEASUREMENT OF THE TRADITIONAL FOODS CAN RAISE THE KNOWINGNESS OF OLD RECIPES USED IN ROMANIA AND DIASPORA

Luigi Fillippo D'ANTUONO
Universita di Bologna, email: filippo.d'antuono@unibo.it
Carmen COSTEA
Spiru Haret University Bucharest, email: cecostea@yahoo.com[1]
Larisa MIHOREANU
Academy of Economic Studies Bucharest, email: lmihoreanu@yahoo.com
Adrian VASILE
Erste Bank Vienna, email: Vasile_adrian0505@yahoo.com

Abstract

The present research continues a European project on "sustainable exploitation of bioactive components from the Black Sea Area traditional foods". Known as Base Food, it was a collaborative program, funded by European Union under the 7th Framework Programme, few years ago. The initial research brought together scientists from countries situated around the Black Sea together with consultants from Italy, United Kingdom, Greece, Portugal and Serbia. Farther the medical, nutritional and technological approaches (Campos S., Doxey J., & Hammond D., 2011, pp. 1496-1506) in the initial project, the Romanian team initiated a unique and outstanding valuable contribution and extended the local research towards socio-economic tracks. Thus, specific aspects were analysed and detailed within certain doctoral programmes. The present paper is emphasizing farther elements, remained collateral, when the main research was considered.

Keywords: *sustainable development, healthy food, traditional food, consumer awareness*

JEL Classification: I15, N50, Q18

Introduction

Base Food aimed to promote robust development and processing of specific identified traditional products containing emerging bioactive compounds with significant health effects in the Black Sea Region. The Base Food objectives focused on:

- Investigation of the fundamental knowledge of national foods and identify those representatives for the research purposes;
- Characterisation of nutrient and bioactive data (European Commission, Directorate General for Health and Consumers, 2009) for a subset of about 30

[1] Corresponding address

prioritised traditional foods using previously developed and validated by another European project – Euro FIR (www.eurofir.org) with appropriate definition and analyses (Trichopoulou A., et al., 2006, pp. 498-504);

- Analysis of human intervention and address specific requirement for supporting evidence in nutrition and health claims (The European Parliament and the Council of the European Commission 2006, pp. 3-18; Wills J.M., et al., 2012, pp. 229-236);
- Evaluation of processors and consumers attitudes to enhance the food chain and improve its management and availability and health benefits;
- Dissemination of any findings and results to sustain and gain more awareness in the traditional foods production and consumption in order to improve health.

The project objectives, entirely congruent with international researches in the world, made a significant contribution to the substantiation of nutrition/health claims for traditional food (Lynam A., McKevitt A., Gibney M.J., 2011, pp. 2213-2219) and enhanced the cooperation between researchers and stakeholders to promote robust development of SMEs in the Black Sea Region. (European Commission, 2010, pp. 16-18)

The "traditional" elements characterize foods used for ages in smaller or broader local societal groups (Guerrero L., et al., 2009, pp. 345-354); their recipes have been perpetuated from one generation to another either from mouth to mouth or in writing. Even today, traditional foods (Commission of the European Communities, 2006b, pp. 1-11) represent important elements of diets, despite the difficult recover under the rapacious globalisation. The most challenging approaches are to save traditional diets – at least those culturally important and health promoting. The methodological context underlining this work was recently shared under some research project, such as Euro FIR Network of Excellence (2005-2010) (www.eurofir.org), or the Base Food project (2009-2012) (www.basefood-fp7.org).

The registration of traditional foods requires comprehensive documentation (Dilis V., Vasilopoulou E., Trichopoulou A., 2011) about all elements linked to the food traditionality. Other related cultural information refers to the etymology of the food's name, the recipes' evolution and its importance in the local diet, economy, community life, and other features involving consumption. (Trichopoulou A., Soukara S., Vasilopoulou E., 2007, pp. 420-427)

The preparation procedures (Commission of the European Communities, 2006a, pp. 12-25; Dilis V., Vasilopoulou E., Trichopoulou A., 2011) of the traditional food follow the interest for nutritional (Mejean C., et al., 2012) information and composition. They include all empirical methods and technical parameters: temperatures, utensils etc. allowing reproduction of the recipe without major deviations from the original product. Nutritional analyses (Costa H.S., et al., 2010, pp. 73-81) are always conducted by accredited laboratories (Patterson N.J., Sadler M.J., Cooper J.M., 2012, pp. 121-130) for macronutrients and selected vitamins and minerals. However, the determination of other compounds is recommended – such as the flavonoids in the plant products. Depending on the food, microbiological analysis might also be necessary for safety or quality issues (e.g. for fermented products). In specific circumstances, sensory evaluation brings complementary information.

An important phase of the local analysis on a triple survey referred to Romanians' consumption of traditional food, both in Romania and Diaspora. To reach such goal, the Romanian team decided to do a supplementary survey addressed to Romanian emigrants, western consumers found within the country, to check the awareness and the attitude of westerners towards traditional foods as possible new versions of ethnic foods. Further the chosen foods analysed within the project, more products were considered in our complementary survey: plum jam, dried fruits and green vegetables dish, garlic sauce, hotchpotch of fresh vegetable, nettles dish.

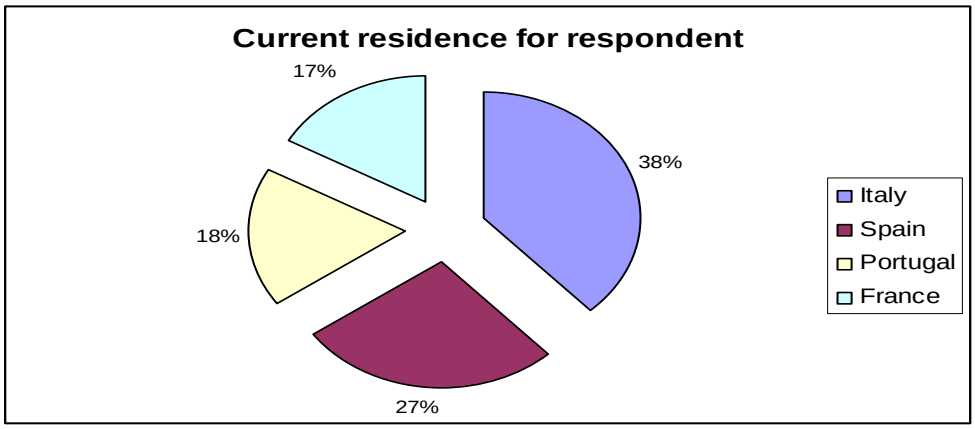
Deepening the research beyond boarders

Given the importance of the topic for the Romanian team, more objectives were added to be considered both at local level and across Diaspora:

- Before the analysis, the assessment of the nature and functionality of our traditional products for a better understanding of all processes and their effects on health together with specific generation of data basis standards;
- Initiation and application of specific surveys to obtain information regarding the awareness, knowledge and acceptance of traditional food dishes from the Black Sea area (www.basefood.eu, Mazoyer, M. L., Laurence, R., 2006); this stage was followed by an accurate process of verification prior to carry out the questionnaire analysis in Romania and in specific locations in four Western European countries where Romanian population is mostly present (Italy, Spain, France and Portugal);
- Construction of a complete report on how the functional measurement of the traditional foods can raise the knowingness of old recipes used in Romania and Diaspora.

The questionnaires for Romanian emigrants to Western Europe were distributed in four major locations: Italy, Spain, France and Portugal. The figure 1 portrays the place of residence for Romanian emigrants that were interviewed during the data gathering:

Figure 1. *Current residence of respondents*



The questionnaires regarding immigrants to Romania were distributed in major locations in Romania, in the Bucharest extended area, most notably Baneasa Airport, Crangasi Square, Baneasa, Auchan, Carrefour Baneasa, Cora Sun Plaza, Cora Lujerului. Both table 1 and figure 2 portray the place in which the interview took place as well the frequency attributed to each location for migrants to Romania:

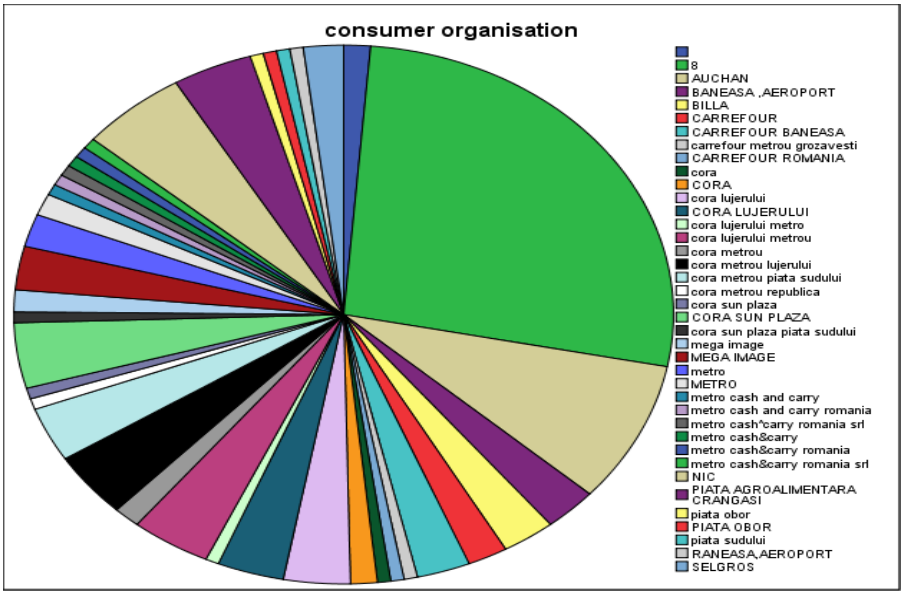
Table 1

Customer Organisation

	Frequency	Percent	Valid Percent	Cumulative Percent
Bucharest City Centre	41	27.3	27.3	27.3
Auchan	13	8.5	8.5	35.8
Baneasa Airport	5	3.3	3.3	39.1
Billa Bucharest	4	2.6	2.6	41.7
Carrefour Orhideea	6	3.4	3.4	45.1
Carrefour Baneasa	4	2.6	2.6	47.7
Cora	3	2	2	49.7
Cora Lujerului	11	7.3	7.3	57
Cora Lujerului Subway	14	9.1	9.1	66.1
Cora Subway Piata Sudului	6	4	4	70.1
Cora Subway Republica	1	0.7	0.7	70.8
Cora Sun Plaza	8	5.3	5.3	76.1
Mega Image	6	3.9	3.9	80
Metro	10	7.5	7.5	87.5
NIC	8	5.2	5.2	92.7
Piata Crangasi	6	3.9	3.9	96.6
Piata Obor	2	1.4	1.4	98
Selgros	3	2	2	100
Total	153	100	100	

These questionnaires were filled and collected between March and July 2011. After initial checking, the data was introduced and coded into SPSS. The data set has been updated by eliminating invalid questionnaires and incomplete answers.

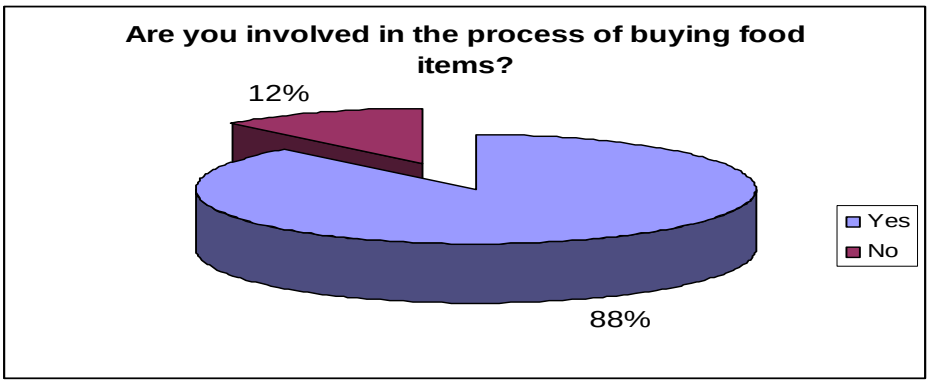
Figure 2. *Consumers Organisation*



Increasing the Awareness about the Traditional Food among Romanian Emigrants to Western Europe

One of the first concerns of the study was to identify whether the Romanian emigrants included in the data collection process played an active role in the decision regarding the acquisition of food products.

Figure 3. *Involvement in the buying food process*



Approximately 88 % of respondents claimed that they were actively involved in the action of buying food items. The remaining 12% claimed that they did not take part in this process. The latter had not been withdrawn from the study since

the objective was to establish the degree of knowledge and awareness among the entire population of Romanian migrants.

The source for acquisition was very important to determine the possibility to introduce traditional food products in the mainstream of commercial production. The table 2 indicates the main sources for buying food according to the respondents:

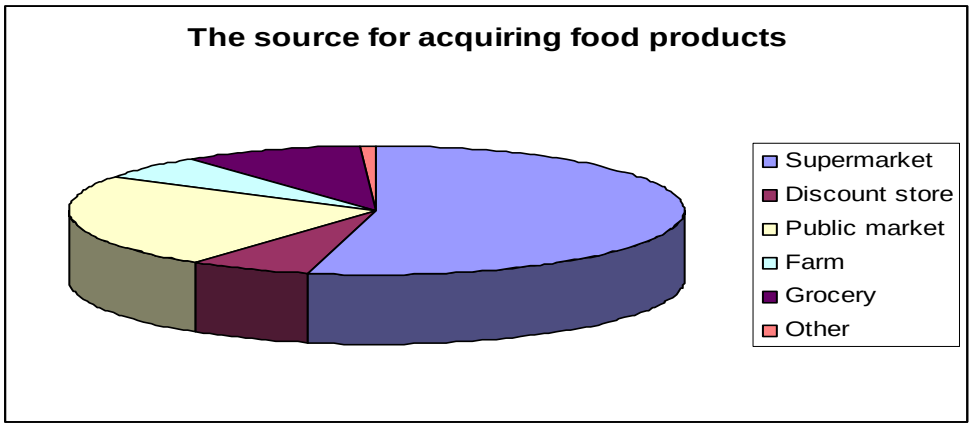
Table 2

The main sources for the acquisition of food products

Supermarket	53.65
Discount store	6.36
Public market	24.09
Farm	5.75
Grocery	9.38
Other	0.87
Total	100

The data from table 2 is also represented in the figure 4:

Figure 4. *Acquiring food products sources*



In the questionnaire, the supermarket category was also set to incorporate the hypermarkets and other large stores that sell a very large variety of products (foodstuff and other). Supermarkets and other large sellers account for approximately 54% of the food products declared by Romanian migrants, thus, any effort in the mass production and mass selling of traditional food products would have to take into consideration the inclusion of these location in their distribution chains.

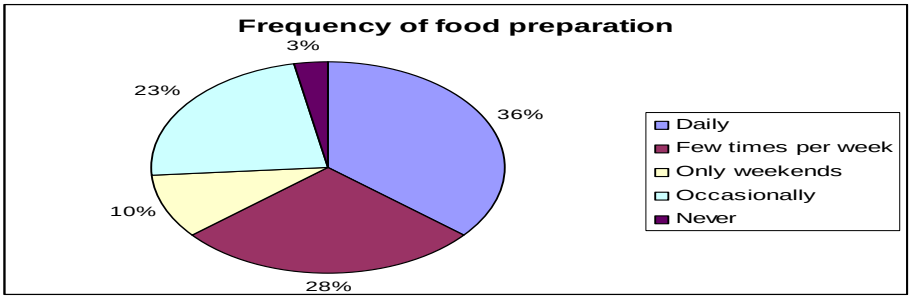
The frequency of food preparation helps illustrate the actual market potential for traditional food products as it can be linked positively with the average number of hours spent for shopping and concurrently, can be linked negatively with the number of visits to specialized restaurants. It can be assumed that individuals, who

prepare food products less often, needed their nourishment prepared and possibly sold by others.

The following figure (5) captures the data regarding food preparation. It can be asserted that 64% of respondents are involved in preparing food at least a few times per week, thus they would represent the potential customers for traditional ingredients or semi prepared food products that can be distributed through supermarkets (and hypermarkets), traditional market places, grocery stores.

On the other hand, the remaining 36% of respondents, that have expressed their relative lack of interest in preparing their own food, would represent the potential market for traditional restaurants. The fact that they do not prepare their own food during the week represents a strong incentive for this part of the migrants to become customers for vendors specialized in fresh dishes.

Figure 5. *Frequency of food preparation*



The fact that 89% of respondents usually consume dishes previously prepared at home, support the latter idea of them forming a great potential market for traditional ingredients. On the other hand, the relatively reduced percentage of individuals the habit of eating out indicates a reduced potential for new traditional restaurants that would target solely Romanian migrants in Western Europe. Ingredients and semi prepared traditional food items can more easily be put up for sale as they require a minimum of preparation and less specific means for serving.

Figure 6. *Sources for prepared food*

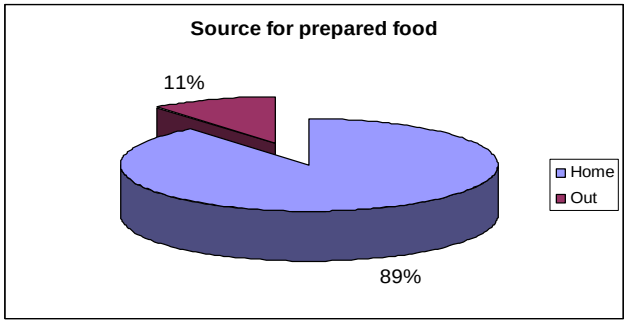


Figure 7. *Food preparation*

Approximately 89% preferred to dine at home while 61% of respondents felt personally involved in the preparation of food products.

The study participants were also asked to provide their own suggestions for traditional Romanian products prior to knowing the list of selected prioritized food items (selected by the Base Food team). Over 50 food products were suggested. Among these, "sarmale", potato based products ("cartofi") and "ciorba de burta" (pig stomach soup) were the most frequent answers.

Carrying out the questionnaire analysis in Romania and in specific locations of Diaspora

Once the questionnaire collection over all the methods and tools already mentioned were applied to get more results, following the Brussels indications and the collateral goal additionally considered. The total number and structure of questionnaires retrieved by the Romanian team can be seen in the table 3:

Table 3

The questionnaires typology and location

Type	Quantity	Location
Marketers	Total 20	
	4+ 16	Bucharest (including 14 through the MIC.RO private network)
Nutritionists	Total 48	Institute of Nutrition Related Illnesses and Diabetes Dr. Paulescu
	37	Bucharest
	1	Suceava
	1	Adjud
	2	Focsani
	2	Fetesti
	5	Bacau
Technologists	Total 21	The Patronate of Food Industry ROMALIMENTA

Type	Quantity	Location
	1	Bacau
	1	Brasov
	4+4	Bucharest-ROMPAN
	1	Constanta
	1	Covasna
	4	Galati
	1	Iasi
	1	Ludus
	2	Tulcea
Local Population	Total 152	
	70	Supermarkets Bucharest
	41	Supermarkets Targu Jiu
	8	Open food markets Bucharest
	28	Subway Bucharest
	5	Airport Baneasa (Mall)
Emigrants	Total 103	
	45	Italy (online)
	32	Italy Rome
	7	Italy Torino
	6	Italy Milano
	17+15	Spain
	9+15	Spain Madrid
	1	Spain Seville
	2	Spain Valladolid
	3	Spain Valencia
	1	Spain Altea
	1	Spain Saragoza
	21	Portugal
	11	Portugal Porto
	10	Portugal Lisbon
	20	France Lyon Association of Promoting Performance

Constructing a complete report on the awareness, knowledge and acceptability of traditional food for Romanian emigrants to Western Europe and for immigrants to Romania

Based on the information provided by data centralisation from the questionnaires regarding the consumer awareness and knowledge of products the following conclusions can be supported:

1. From the prioritised Romanian traditional foods, someone who likes cabbage leaf rolls (sarma) with dehydrated plums and apples scores very low in all

categories. They are known by less than 50% of migrants, consumed at least once by less than 30%, occasionally consumed by only 20% and remained favourite food for less than 5% of respondents.

2. Products that are very well known, frequently consumed and form the favourite food of a large percentage of migrants in Western Europe are: Cornmeal mush polenta (Mămăligă), Eggplant salad, Nut horns.

3. Other important traditional foods, when it comes to the awareness of migrants are: Elderberry soft drink (Socata), Plums jam (sugar free) Gem de prune, Vegetables soup/cream, Green beans dish, Pumpkin pie.

4. The "problem products" requiring special attention and marketing measures refer to: Vegetables soup with caraway and semolina, Spinach with dill and mint, Onion stuffed with rice, Onion pie.

5. On a scale from 1 to 10, the data show that the most important characteristic for traditional food (according to migrants) are: taste (average score of 9.29), healthiness (average score of 9.06), lack of alteration (average of 9.02). The less important characteristics are: availability in daily diet (average of 5.51), availability in restaurants (average of 6.18), spicy flavour (average of 3.68), lack of sophistication (average of 6.39), green packing (average of 6.75), and organic (average of 6.7), the capacity to be stored (average of 6.18), ability to be prepared with the microwave oven (average of 5.09).

The finalisation of this research could be followed by other follow-up projects to which the Romanian team participated with renewed efforts and aspirations.

During the project development some bottlenecks became obvious: a) the preparation of questionnaires regarding the understanding the socio-economic concepts by the other specialist (non-economists) inside the projects; b) the lack of communication during numerous dialogues developed between specialists with different expertise and backgrounds; c) the questionnaire processing stage caused by some divergent tools and programs supposed to be used.

Despite those bottlenecks, the scientists found out collateral ways to understand traditional foods connected to the results and the right values of traditions, initiated new visions and new missions with confidence, to contribute at a greener, sounder, more prosperous market and society.

References

1. Albala, K. (ed.) (2011) *Food Cultures of the World Encyclopaedia*, ABC-CLIO, CA, USA.
2. Banu, C. (1974) *Influenta proceselor tehnologice asupra calităţii produselor alimentare*. Bucureşti: Editura Tehnica.
3. Babaita C. (2000) *Studiul merceologic al produselor alimentare*. Timişoara: Editura Mirton.
4. Banu C. (1982) *Produsele alimentare şi inocuitatea lor*. Bucureşti: Editura Tehnica.
5. Bateman, H., Curtis, S., McAdam, K. (2006) *Dictionary of Agriculture.* 3rd Ed. A&C Black Publishers Ltd, London, UK.
6. Bilteanu, G. and Birnaure, V. (1979) *Fitotehnie*. Bucureşti: Editura Ceres.

7. Campos S., Doxey J., Hammond D. (2011) Nutrition labels on pre-packaged foods: a systematic review. *Public Health Nutrition* **14**:1496-1506.
8. Commission of the European Communities (2006a). Council Regulation (EC) No 510/2006 of 20 March 2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs. *Official Journal of the European Union,* L**93**:12-25.
9. Commission of the European Communities (2006b). Council Regulation (EC) No 509/2006 of 20 March 2006 on agricultural products and foodstuffs as traditional specialties guaranteed. *Official Journal of the European Union*, L**93**:1-11.
10. Costa H.-S., Vasilopoulou E., Trichopoulou A., Finglas P., Participants of EuroFIR Traditional Foods Work Package (2010) New nutritional data on traditional foods for European food composition databases. *Eur J ClinNutr*, **64S**3:73-81.
11. Costa H.-S., Albuquerque T.-G., Sanches-Silva A., Finglas P. (2011) Deliverable 2.3 – Report on analytical data on traditional foods to be available for inclusion in the appropriate national FCDB and EuroFIR datasets Sustainable exploitation of bioactive components from the Black Sea Area traditional foods (BaSeFood Project). (www.basefood-fp7.eu) [29.12.2014].
12. Dilis V., Vasilopoulou E., Trichopoulou A. (2011) Deliverable 1.3 – Flow charts on the preparation procedure of the composite traditional foods accompanied if possible by audiovisual material. Sustainable exploitation of bioactive components from the Black Sea Area traditional foods (BaSeFood Project). (www.basefood-fp7.eu) [29.12.2014].
13. Dilis V., Vasilopoulou E., Trichopoulou A. (2011) Deliverable 1.5 – Specific integrated reports on the selected individual foods. Sustainable exploitation of bioactive components from the Black Sea Area traditional foods (BaSeFood Project). (www.basefood-fp7.eu) [29.12.2014].
14. The European Parliament and the Council of the European Commission (2006) Corrigendum to Regulation (EC) No 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods. Official Journal of the European Union L**12**:3-18.
15. European Commission (2010) Regulation (EU) No 116/2010 of 9 February 2010 amending Regulation (EC) No 1924/2006 of the European Parliament and of the Council with regard to the list of nutrition claims. Official Journal of the European Union **L37**:16-18.
16. The European Parliament and the Council of the European Commission (2011) Regulation (EU) No 1169/2011 on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EEC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004. Official Journal of the European Union **L304**:18-62.
17. European Commission, Directorate General for Health and Consumers (2009) *Working document on the setting of nutrient profiles. Preliminary draft legal proposal.* Brussels, Belgium, February 2009
18. Guerrero L., Guàrdia M.D., Xicola J., Verbeke W., Vanhonacker F., Zakowska-Biemans S., Sajdakowska M., Sulmont-Rossé C., Issanchou S., Contel M., Scalvedi M.L., Granli B.S., Hersleth M. (2009) Consumer-driven definition of traditional food

products and innovation in traditional foods. A qualitative cross-cultural study. *Appetite* **52**:345-54.
19. Lynam A., McKevitt A., Gibney M.J. (2011) Irish consumers' use and perception of nutrition and health claims. *Public Health Nutrition* **14**:2213-9.
20. Mazoyer M. L., Laurence R. (2006) *A history of world agriculture – From the Neolithic Age to the Current Crisis*, Earthscan, London, UK.
21. Mejean C., Macouilard P., Peneau S., Hercberg S., Castetbon K. (2012) Perception of front-of-pack labels according to social characteristics, nutritional knowledge and food purchasing habits. *Public Health Nutrition* doi:10.1017/S1368980012003515.
22. Mocanu S., Raducanu D. (1989) *Plante medicinale. Legume, fructe si cereal in terapeutica*. Ed. Militara, Bucharest, Romania.
23. Mohan G., Avram A. (1989) *Valorificarea resurselor vegetale in gospodarie si industrie*. Ed. Tehnica, Bucharest, Romania.
24. Murariu M., Murariu D., Haş V., Study of old maize landraces from northern Moldavia and Transylvania, N. I.N.C.D.A. Fundulea, Vol. LXXVIII, NR. 2, 2010, Online ISSN 2067–7758 www.incda-fundulea.ro.
25. Onete D., et al (1963) *Merceologia produselor alimentare*. Ed. Didactica si Pedagogica, Bucharest, Romania.
26. Patterson N.J., Sadler M..J., Cooper J.M. (2012) Consumer understanding of sugars claims on food and drink products. *Nutrition Bulletin* **37**:121-130.
27. Roman R.A. (1998), *Bucate, vinuri, obiceiuri româneşti*, Editura PAIDEIA.
28. Schiop T.V., *Variabilitatea conţinutului de amidon şi fibre la populaţii locale şi sintetice, Linii consangvinizate şi hibrizi de porumb,* PhD thesis, 2011.
29. Svederberg E., Wendin K. (2011) Swedish consumers' cognitive approaches to nutrition claims and health claims. *Food & Nutrition Research* **55**:5929 doi:10.3402/ fnr.v55i0.5929
30. Trichopoulou A., Vasilopoulou E., Georga K., Soukara S., & Dilis V. (2006) Traditional foods: why and how to sustain them. *Trends in Food Science and Technology* **17**:498-504.
31. Trichopoulou A., Soukara S., Vasilopoulou E. (2007) Traditional foods: a science and society perspective. *Trends in Food Science & Technology* **18**:420-427.
32. Trichopoulou A., Vasilopoulou E., Hollman P., Chamalides C., Foufa E., Kaloudis T., Kromhout D., Miskaki P., Petrochilou I., Poulima E., Stafilakis K., Theophilou D. (2000). Nutritional composition and flavonoid content of edible wild greens and green pies: A potential rich source of antioxidant nutrients in the Mediterranean diet. *Food Chemistry*, **70**:319–323.
33. Wills J.M., Storcks S., Bonsmann G., Kolka M., Grunert K.G. (2012) Symposium 2: Nutrition and health claims: help or hindrance European consumers and health claims: attitudes, understanding and purchasing behaviour. *Proceedings of the Nutrition Society* **71**:229-236.
34. www.basefood-fp7.org
35. www.basefood.eu
36. www.eurofir.org

THE LINK BETWEEN ACTIVE AGING AND RETIREMENT AGE

Mihai Robert PAŞNICU
Brown University, US
E-mail: mihai_pasnicu@brown.edu

Abstract

The paper aims to shed light on the policies and consequences of the current retirement age in Romania. The retirement age has been repeatedly incremented in Romania in the last couple of years in order to try to compensate for the fact that the country has a low general employment rate, only 30% of the population, while having 20% of the total population aged 65+. By using an econometric model we will first prove the existence of an optimal retirement age that might vary for each and every one of us, after which we will explore different possibilities of exploiting this information in order to improve the current retirement programs. Mainly, we will look at the possible solution of eliminating the mandatory retirement age in certain work sectors through a comparison analysis.

Keywords: *retirement age, econometric model, active aging, policies*

JEL Classification: J_{21}, J_{26}, J_{32}

Introduction

As we all know, nothing good comes alone in economics. Due to the improvement of living conditions, life expectancy has been going up. This has triggered side effects regarding the retirement plans and, combined with our aged population, resulted in a relatively big difference between the available and the required funds to honour the pensions. Thus, pension reforms have been in the centre of the Romanian elections being a delicate yet important issue.

The general answer to this problem was incrementing the retirement age, which although apparently is the obvious solution, does present some problems. By choosing this approach, we are keeping the population more and more in employment. On the other hand, old people are known to be a vulnerable group on the labour market, already facing one of the highest unemployment rates, along with the youth. Moreover, during the crisis, employment dropped by more than 4% in the 60+ sectors, being the first to be dismissed, while the average was around 2%. Once fired, being that the productivity of worker is normally distributed and starts dropping after the 40-44 years mark, aged people are having problems finding a new employer.

Other alternatives for compensating this imbalance include but are not limited to smaller pensions or a substantial increase of contributors. Federal Labour Minister Ursula von der Leyen (Germany) deemed the last two as being

"unreasonable" due to the fact that these strategies are not long term sustainable nor are they necessarily improving the life conditions of the populations as a whole. As we can see, "The search for retirement age formula" is common issue amongst the European countries. Sweden has reported that in order to keep the same standards of living they would have to extend the working life by 10 years (65-75) while France is announcing the official retirement age to be 67 for the future.

Theoretical Background

In order to look at the utility a person derives from income in the form of wage, as well as the utility derived from pension we will use the model from Tito Boeri and Jan van Ours (2008). For this, we will assume that retirement is irreversible and that there is a constant discount factor δ. Now, we denote by *t* the year in which the person receives his first income, by *r* the year in which the respective receives pension and by Y_i the annual earnings in the year *i*. Being that people appreciate money differently during employment and retirement, we will have U_w and U_r the utility functions for wage and pension respectively. Moreover, in order to prove the existence of an optimal retirement age we will write the value of retirement at a particular year *r* evaluated in year calendar *t* as two components related to the two specific periods. Therefore in the first case we will have:

$$NPV_{1,t}(r) = U_w(Y_t) + \delta U_w(Y_{t+1}) + \delta^2 U_w(Y_{t+2}) + \ldots + \delta^{r-t-1} U_w(Y_{r-1}) = \sum_{i=t}^{r-1} \delta^{i-t} U_w(Y_i)$$

Secondly, from year r onward till death, denoted by T (age), the person will receive pension benefits defined by $B_i(r)$. Having this in mind, we can write as follows:

$$NPV_{2,t}(r) = \delta^{r-t} U_r(B_r(r)) + \delta^{r-t+1} U_r(B_{r+1}(r)) + \ldots + \delta^{T-t} U_r(B_T(r)) = \sum_{i=r}^{T} \delta^{i-t} U_r(B_i(r))$$

Now, we can write the final formula

$$NPV_t(r) = \sum_{i=t}^{r-1} \delta^{i-t} U_w(Y_i) + \sum_{i=r}^{T} \delta^{i-t} U_r(B_i(r))$$

We can see that by postponing retirement we are increasing the length of the first period while reducing the length of the second. Pension goes up with years of

service so postponing retirement increases income over the remaining period. On the other hand, people will have less time to derive utility from the higher pension, thus decreasing the value of retirement. Obviously, the first effect tends to be higher in the start, but as time goes, second starts to dominate, due to the pension being a strictly increasing function. Therefore, we can conclude that there exists an age r^* such that it maximizes the total utility a person receives from t to T.

Evolution of the phenomena

The retirement age has been rising three months per year since 2006 getting from 63 to 65. Although being effective it was never a long term strategy rather just a measure to keep the country afloat and keep the difference at a reasonable magnitude. Unfortunately, this was not the only action taken in order to restore balance; the indexation level of pensions was reduced in 2010 in order to further soften the effect on the standards of living. Looking at the next graphs, we have the evolution of the retirement age and life expectancy from 2006 to 2013 and on the right side we have a comparative analysis between the population structure in 2013 and 2012.

Figure 1

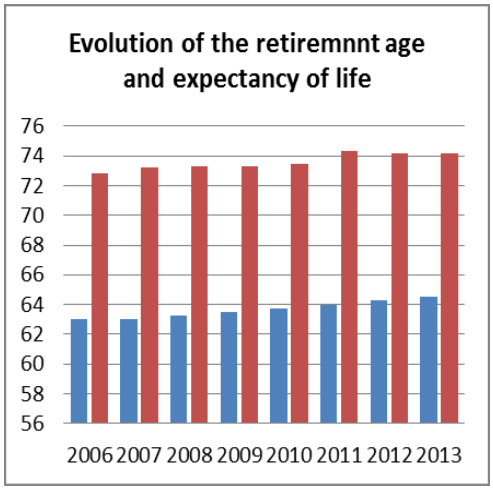
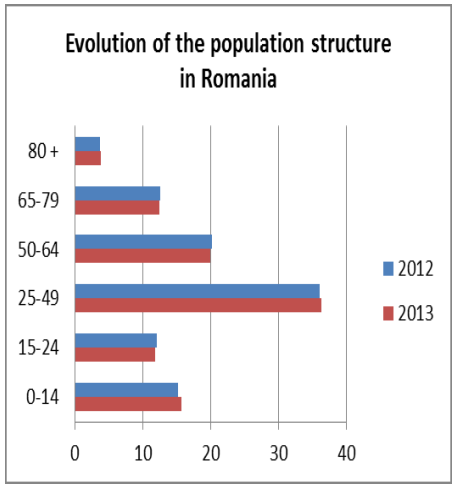


Figure 2



Source: processing authors based on Eurostat database, Trading Economics

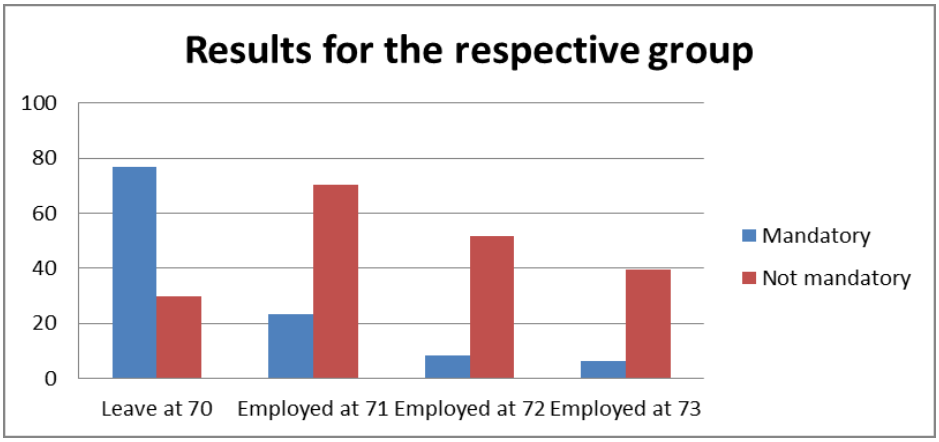
Although, retirement age has risen along with life expectation there are a few problems regarding this strategy. First of all, the productivity decays after a certain age, in Romania it is around 40 years old, being normally distributed. Having this in mind, the employer can't pay the respective, or imposed, wage to an aged worker and therefore might result in unemployment. Furthermore, some wages do increase with experience in the respective work place, resulting in a bigger discrepancy between productivity and revenue. Secondly, the risk of death increases exponentially with age so the ability of people being able to work at 65 years old cannot be automatically assumed.

On the other hand, suppose that we disregard the above mentioned possible issues, Romania's age structure is extremely unbalanced. The pyramid graph shows a big concentration between 25 and 49 years old. In 2010 it was said that retirement age will reach 65 (for men) by 2030, but it had reached 65 in 2015. Therefore, we can just ask ourselves what will happen when those people will reach retirement age, in approximately 15 to 20 years. Looking at the population distribution, Romania might be forced to consider the same alternative as Sweden and increase the retirement age to 75 which would be not only hard to apply but theoretically incorrect since the life expectancy in Romania is 70.3 for men and 77.8 for women.

US approach towards this problem

One possible solution might come from the US system, where at least for some occupations the mandatory retirement age was removed. The next graph represents the results obtained by Orley Ashenfelter and David Card after following regular faculty members aged 50 or older from the mid-1980s. The database was made for faculty or college positions that offered defined – contribution pensions. The results were pretty impressive and brought an air of hope.

Figure 3



Source: processing authors based on data from Orley Ashenfelter and David Card study

It seems that the removal of the mandatory retirement age did not affect the employment rates until 70, which was the previous retirement age, but had a positive effect afterwards. Previously, less than 10% were working at ages 72 and 73, where we know have almost 40% employment at those two years, in this sample. It was recorded that people with higher salaries or lower pensions were likely to retire later. Making use of theoretical model, we can say that r^* for most people in the US is higher than the former retirement age (70) being that they continued working. Moreover, the claim that people with higher wage or lower

pension tend to retire later is not only of common sense but also confirms our model such that $\delta^{r-t-1}U_w(Y_{r-1}) \geq \delta^{r-t}U_r(B_r(r))$, in other words, the person will work until the early benefit for pension will be greater than the one from wage.

Comparative analysis on the main reasons of retirement

Being that the results were so encouraging, this might be a future solution that might help reduce the gap. On the other hand, out of Romania's total population for retirement, only 18% of them would have wished to stay in employment compared to almost 70% in the US and 40% in the EU. Although still a considerable amount, it is not as impressive as the results from Orley Ashenfelter and David Card's study.

Figure 4

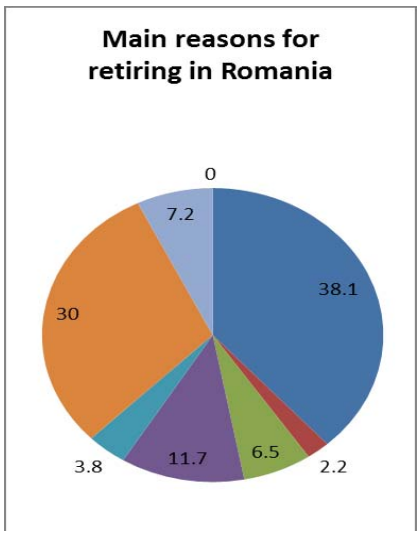
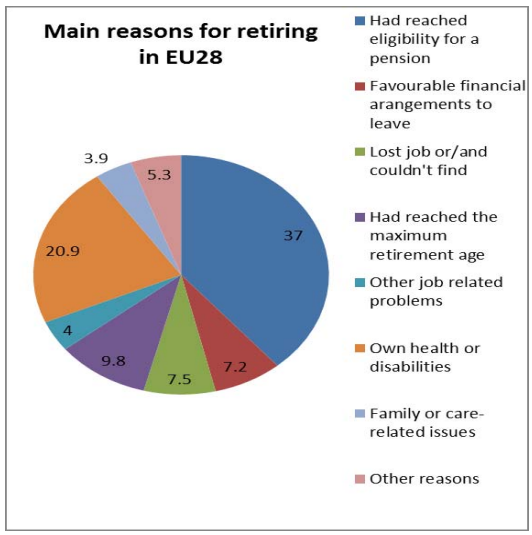


Figure 5



Source: processing authors based on Eurostat database

We will try to analyse and see if we can encourage the Romanian population to continue employment. Above, we have the main reasons for which people choose to retire, and receive pensions, instead of continue working for Romania and European Union 28. We can see that Romania rises way up the EU28 average when talking about general health and disabilities. The difference from 30% to 20.9% denotes a weak health system, as well as emphasizes the need of improvement in the health conditions at the work place. Therefore, due to the precarious health, disabilities or uncertainty regarding the security of their future health, the population tends to quit their job and focus more on their personal issues. Another sector that stands out, almost doubling the numbers of the European Union is the family and care-related one. Although a small percentage, it is well known that the support care in Romania is yet to be fully developed in order to compete with its European neighbours.

One important sector which does not show that big in the above charts is the "Had reached eligibility for a pension". This category puts forward the active – aging concept that has been in the centre of Europe in the last couple of years. The results speak for themselves: in Sweden we have 19.3%, Germany 13.1%, UK 20.2% while in Bulgaria we have 80.1%. This statistic mainly illustrates the mentality of the people, suggesting that some persons believe that high age implies complete detachment from the labour market, which in theory is the complete opposite of active aging. By focusing on programs that encourage this concept, people will raise their awareness and search for programs that offer them the balance that they require between personal and work life, further inspiring them to find new paths through the labour market instead of stepping down.

Conclusions

The rise of life expectancy is one of the great benefices of technological and structural evolution but it does bring with it certain issues which we have to face. As the life average goes up, the amount required to pay the pensions goes up and we eventually reach a mismatch between the available and the required funds. This has become a European matter which has been largely been dealt with by increasing the retirement age. It has definitely kept the difference at reasonable levels, but as many people consider it is not a sustainable solution. Moreover, looking at Romania's unbalance population structure we can expect the gap to grow a lot more. Therefore, we need to look for another solution.

One possible approach might be following the US model. This implies removing the retirement age, at least in some sectors, but put a minimum amount of years of contribution in order to be eligible for pension. In this case, people who started working earlier will be able to retire earlier, if they decide so, while taking advantage of r^* the optimal retirement age for each of us which might be well above the mandatory retirement age. While everything looks nice on paper, and the results recorded in the US are impressive, this strategy does inquire some conditions.

First of all, Romania should focus on improving the general health of the population and decrease their concerns about their medical future, thus encouraging them to remain more in employment instead of immediately retiring. In other words, using our model, some people might fear they won't be able to take full advantage of the second half, the retirement benefits, and thus choose it as soon as possible.

Secondly, the mentality the people ought to be changed, by encouraging the active aging concept pushing aged people to make use of their gathered experience. Last, Romania should improve the support care in order to assure people that by dedicating more time for work, their personal life won't go down having the support of the system.

The above mentioned are just general directions that might help increase the percentage of people that would be willing to work after they reach the retirement age. We are currently sitting at 18% compared to US's 70%, data obtained from

their experiment, so we definitely can't expect the same results but we do have the space to improve as long as we realize our weak points. A similar thorough study in Romania, in the hypothesis of mandatory age being removed, will be done in order to assert the real numbers and see exactly where we are standing.

References

Ashenfelter Orley, and Card David (2002), "Did the Elimination of Mandatory Retirement Affect Faculty Retirement?" *American Economic Review*, 92(4): 957-980.

Foster Liam, and Walker Alan "Active and Successful Aging: A European Policy Perspective", Oxford University Press on behalf of The Gerontological Society of America, 2014.

Göbel C. and Zwick T. (2010), "Which personnel measures are effective in increasing productivity of old workers?", ZEW-Centre for European Economic Research Discussion Paper (10-069).

Mladen Luise (2012), "Pension reforms in central and eastern European countries and their outcomes", Annals of Spiru Haret University, Economic Series, 3(1): 59-68.

Boeri Tito, Van Ours Jan (2008) "The economics of imperfect labor markets", Princeton University Press.

*** "Average number of pensioners and average monthly pension, in the second quarter of 2014", 2014.

*** "Demography, active ageing and pensions", Social Europe Guide, vol. 3, Luxembourg: Publications Office of the European Union, 2012, ISBN 978-92-79-25009-5.

Eurostat database http://ec.europa.eu/eurostat/data/database

Trading Economics http://www.tradingeconomics.com/

ROMANIANS' ATTITUDES TOWARDS MOBILITY FOR WORK FROM A GENDERED PERSPECTIVE*

Andra-Bertha SĂNDULEASA
Postdoctoral researcher at Romanian Academy
E-mail: sanduleasa@incsmps.ro

Abstract

Employment strategies in the European Union laid stress on the importance and on the need to increase the participation of women on labour market. On the other hand, evidence shows that international migration has been feminised in Europe and that, in the past decades, geopolitical conflicts and economic restructuring in Eastern Europe and the Third World generated new patterns of female migration. This article explores Romanians' attitudes towards mobility for work from a gendered perspective. Based on the Special Euro-barometer 337 – Geographical and labour market mobility – conducted in 2009 on behalf of the European Commission, the main findings of the article are that gender is an important aspect in analysing people's economic behaviour. The research argues that in order to increase women's participation on labour market, a deeper understanding of the situation of females on labour market is required.

Keywords: *migration, geographic mobility, attitudes, employment, gender differences*

JEL Classification: A_{14}, D_{10}, D_{63}, J_{61}

Introduction

Migration is a form of social behaviour in closer dependence with other social and economic processes, which is why when investigating this subject we must see its complex, multi-dimensional, and dynamic feature (Castles, S., 2011).

Research in the field of migration revealed that Romania has a recent tradition with regards to international migration for work, as a consequence of the difficult transition from the communist regime to democracy, for which reason migration became a strategy of life (Sandu, D., 2000; Vlase, I., 2013). The economic crisis from 2008 brought changes in relation to migrant workers' behaviour. Although in 2008, voices of Romanian decision makers announced that Romania would not be directly affected by the global economic crisis, evidence showed that the predictions were not accurate and that Romania suffered even worse and for a longer period of time than other countries. One of the effects of the

* *This paper is supported by the Sectorial Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and by the Romanian Government under the contract number SOP HRD/159/1.5/S/136077.*

economic crisis is related to the financial provision of Romanians working abroad reduced by half compared with period 2007-2008 (Zaman, G., 2011).

Studies also show that migrant population is not a homogenous group with regards to the socio-demographic characteristics such as gender, age and education level, for which reason the attitudes toward mobility for work may differ accordingly (Vlase, I., 2012). Analysing the determinants of the Romanian temporary labour migration, research showed that there are important differences between genders regarding the migration decision (Prelipceanu, R., 2010). Yet, research regarding the motivations behind the economic behaviour of women and men is poor (Vlase, I., 2012).

One important perspective in the study of the economic behaviour of men and women is represented by the attitudes that individuals have towards working abroad. Paying attention to people's attitudes with regards to geographic mobility for work might help to find interesting data on Romanian women's motives to seek for work abroad, away from their children, husbands, friends and enlarged families. Therefore, by using data collected through the Special Eurobarometer 337 – Geographical and labour market mobility, this article analysis a series of aspects regarding Romanians attitudes towards mobility for work from a gendered perspective.

Establishing context for discussion

Until the '80s, migration studies generally focused on the economic side. Thus, male migrants were seen as the main economic actors and women were seen as their passive followers (Lutz, H., 2010; Mahler, S., Pessar, P., 2006). Yet, in time, migrant women came to account for almost 50% of all migrants and the number of women migrating to find jobs as individuals also increased. The phenomenon of female migration experienced interesting changes in the past decades, as a result of geopolitical conflicts and economic restructuring in Eastern Europe and the Third World (Kofman, E., 2003). Researchers came to acknowledge that women equalled men regarding the rate of migration for work, which means that they too undertake economic active roles during migration and participate to the improvement of the quality of life of their families left behind and also contribute to the development of their communities of origin (Sørensen, N., 2005). The scholars now describe migration as an empowerment factor for women, as access to education, work experience and economic independence abroad may help women to better negotiate gender roles with their partners and exercise their rights more effectively.

European Union guarantees the right to move and reside freely within the territory of the Member States to all its citizens, this right being one of the fundamental rights guaranteed by the European legislation (Paşnicu, D., 2013). Moreover, since the implementation of free movement of people within the territory of the Member States, this has become a symbol for European integration (European Commission Report, 2010).

On the other hand, European Community policies draw attention to the importance and the need to increase female labour market participation rates. In Western Europe, the employment rates of women are higher than in Eastern Europe

where Romania is located. As an eastern European country, Romania experienced a smaller gender employment gap during communism as the State encouraged women's participation on labour market, but the post-socialist picture is different. This is one of the reasons for which some Romanian women move to other countries seeking for work and leaving behind their families, even their children.

Data and Method

The database employed for this article is based on the Special Eurobarometer 337 – *Geographical and labour market mobility*. This special Eurobarometer is part of Wave 72.5 survey and was conducted in 2009 on behalf of the European Commission, under the responsibility of the Directorate-General Communication. The total number of interviewed persons was of 26.761 citizens from all the 27 member countries of the European Union. Respondents were residents in the investigated countries, nationals and non-nationals but EU-citizens, and aged 15 and over. It was used a multi-stage, random (probability) sampling design and only one interview was conducted in each household, using face-to-face technique. The survey was designed to take a closer look at Europeans' mobility experiences and intentions. The survey also explores the reasons, factors and incentives that make people migrate. For this article, the Romanian national sample was used, composed of 1,008 subjects.

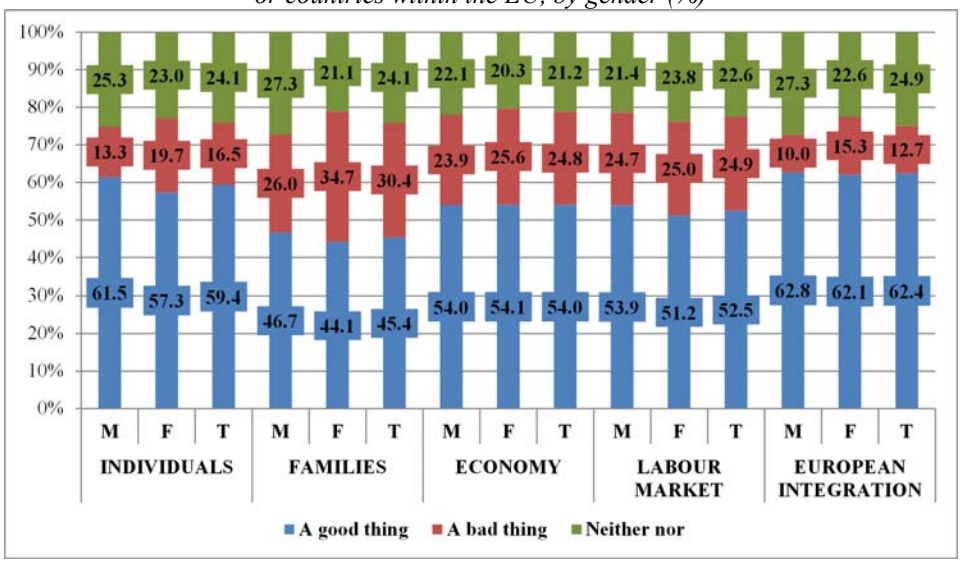
Data were analysed using SPSS 19. Descriptive statistics were used while running the database, based on the post-stratification weights. This weighting procedure ensures that each country is represented in proportion to its population size aged 15 and over, by gender, age, region (NUTS II according with EUROSTAT nomenclature of territorial units for statistics) and size of locality.

Discussions

Is it good or bad to move across regions or countries within the European Union?

As all the other European citizens, Romanians were asked to give their opinion about the impact of people moving across regions or countries within the EU on *individuals, families, the economy, the labour market and European integration*. Geographic mobility is considered to be good especially with regards to *European integration and individuals* (Chart 1). Just over half of Romanians think that geographic mobility is also a good thing for the *labour market*. When asked to take family into consideration, respondents from Romania are less convinced that the geographic mobility is a good thing, especially in the case of female respondents. There is a significant difference between women opinions and the ones of men with regards to the impact of geographic mobility on families: *only 26% of men compared to almost 35% of women consider that families are affected by the geographic mobility*.

Chart no. 1. *Subjective evaluation regarding the impact of people moving across regions or countries within the EU, by gender (%)*



Source: Author's calculations based on *Eurobarometer 72.5,* GESIS Data Archive, 2009

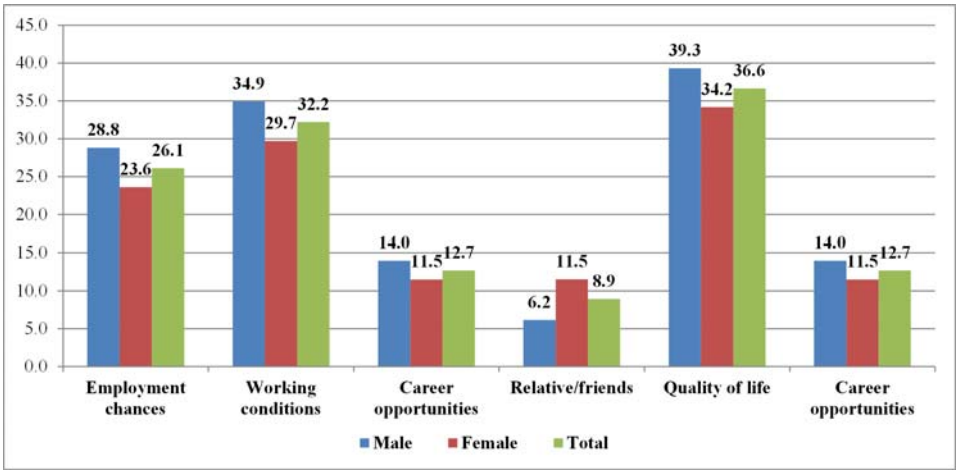
Why would want Romanians to work in another country

People might have different reasons for moving to another country: to search of a better place, to seek for a better education, to find a job, to obtain a higher income etc. When asked to nominate the reasons that might encourage them to work in another country, regardless of whether they have worked in the past or might work in the future, Romanians generally mentioned that they would be encouraged to migrate for work by *better working conditions* and by the *quality of life,* which is superior in other European countries (Chart 2). On the third place, there is Romanians belief that they have *better employment chances* abroad than in their country of origin. *Gender differences* with regards to the encouraging factors to migrate for work are seen when asked to take into consideration the *relatives of friends* who live abroad. In that case, women are the ones who mention in a greater percentage that they would accept to migrate for work motivated by their desire to be closer to their relatives or friends who live abroad. *Men find more appealing* than women to migrate in order to have a *better quality of life, better working conditions, better employment changes and better career opportunities.*

Romanians' willingness in finding a job outside their country of origin

Although Romanians generally believe that it is a good thing for people to move across regions or countries within the EU (see Chart 1) and despite the fact that one quarter of them believe that the prospects of finding a job in other countries are better than in their own (see Chart 2), more than half of them do not want to move neither to another region within their country of origin, nor to a different country in searching for a job if unemployed.

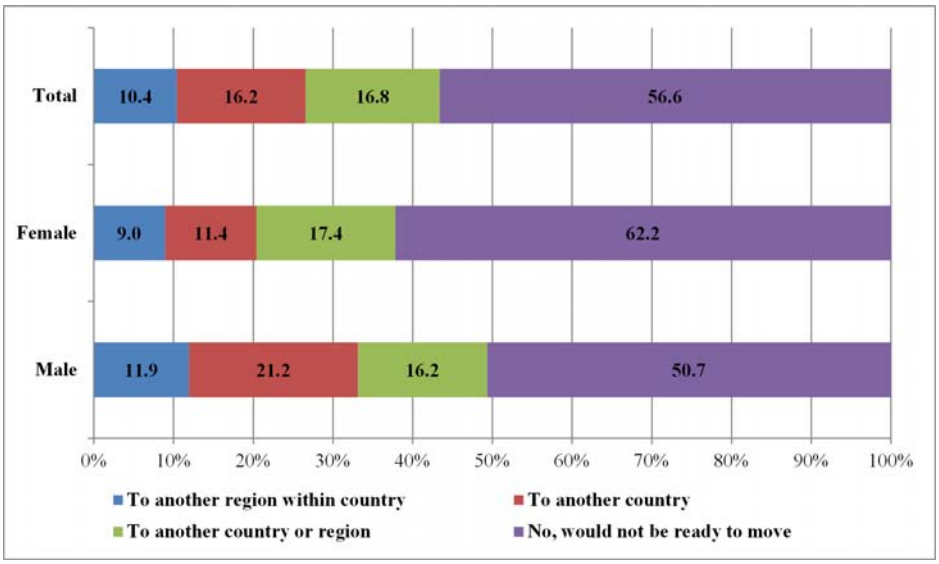
Chart no. 2. *Romanians' motivations for working abroad regardless of whether worked or might work in another country, by gender (%)*



Source: Author's calculations based on *Eurobarometer 72.5,* GESIS Data Archive, 2009.

Note: The chart contains the percentages of people who mentioned the categories of responses.

Chart no. 3. *Romanians' willingness to move for work if unemployed, by gender (%)*



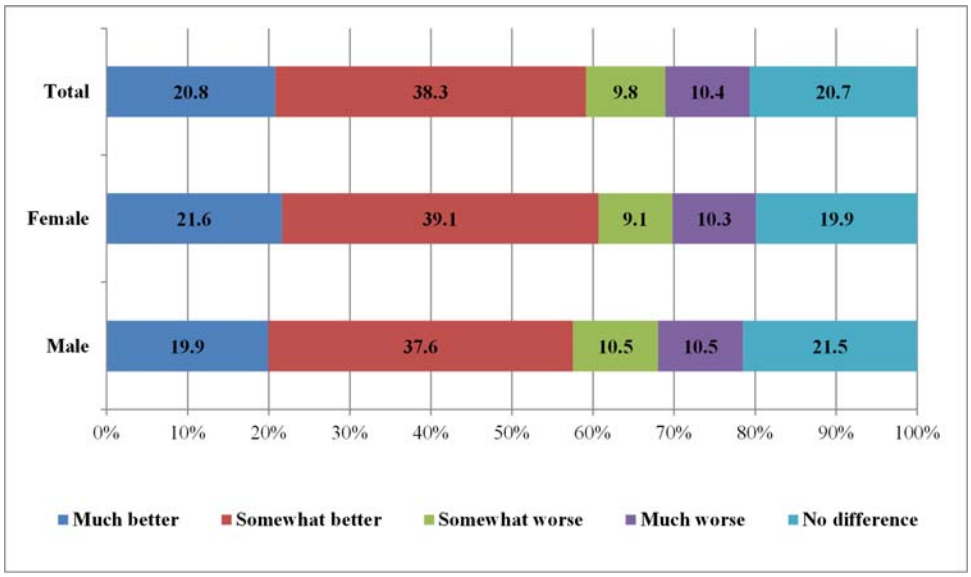
Source: Author's calculations based on *Eurobarometer 72.5,* GESIS Data Archive, 2009

There is a significant statistically difference between men and women with regards to their desire to move for work if unemployed. *Male population is more opened to move to another country to find a job* if unemployed than female population: only 11.4% of women as compared with 21.2% of men say that they would be ready to migrate for work to another country (Chart 3). The main factors that discourage Romanians from working abroad are *the attachment to their homes* (47.1% of men and 52.8% of women say that their home is in Romania), *their family/children* (25.3% of men and 26.6% of women say that they would not want to impose big changes on their families and/or children) and *the hostile attitude towards foreigners* (17.5% of men and 17.9% of women).

Romanians' chances in finding a job outside their country of origin

The financial difficulties resulting from the global economic crisis might be one of the reasons for which Romanians generally think that *the chances of finding a job abroad are better* than the chances of finding a job in their own country. *Women*, generally known to be more affected by unemployment, are the ones who say in grater extend by comparison with men that the *chances of finding a job outside Romania are better*: 60.7% of female population and 57.5% of male population rate the chances of finding a job abroad as 'much better' or 'somewhat better'.

Chart no. 4. *Romanians' opinions with regards to their chances to find a job outside their country of origin, by gender (%)*



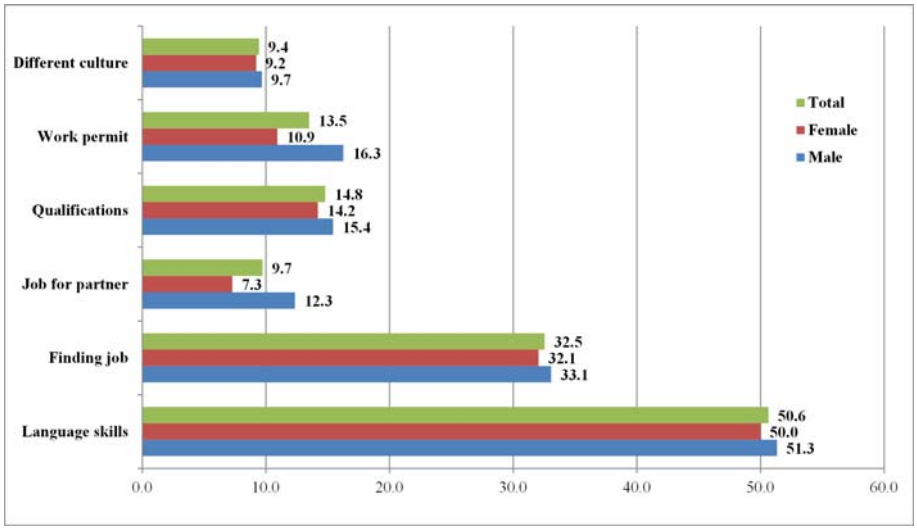
Source: Author's calculations based on *Eurobarometer 72.5,* GESIS Data Archive, 2009

Difficulties encountered when going to work abroad

When asked to name practical difficulties that they encountered or would expect to encounter when going to work abroad, a half of Romanian population refers to the lack of language skills. Around one third of respondents fear that finding a job is/might be difficult, a possible reason being the educational and professional qualifications (the lack of skills or the lack of recognition of qualifications obtained in Romania).

Other reasons named in a greater extend by Romanians referred to obtaining a work permit and adapting to a different culture. Men are more concerned about obtaining a work permit and finding a job for their partner, which means that finding a job is perceived as more difficult for women than for men even outside Romania.

Chart no. 4. *Difficulties encountered or expected to be encountered by Romanians when going to work abroad, by gender (%)*



Source: Author's calculations based on *Eurobarometer 72.5,* GESIS Data Archive, 2009.

Note: The chart contains the percentages of people who mentioned the categories of responses.

Conclusions

The article used descriptive statistics, in order to explore Romanians' attitudes towards mobility for work from a gendered perspective. Based on the Special Eurobarometer 337 – Geographical and labour market mobility – conducted in 2009 on behalf of the European Commission, results show that gender is an important aspect in analysing people's economic behaviour.

The research raised a number of questions, which would warrant further analysis. For example, it should be explored, in direct dependence of data availability, if other variables such as age, education, place of residence, previous

experience in working abroad are important determinants of Romanians economic behaviour. Also, it should be explored whether gender role attitudes are important predictors for the decision to migrate for work.

Acknowledgements

This paper is supported by the Sectorial Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and by the Romanian Government under the contract number SOP HRD/159/1.5/S/ 136077.

REFERENCES

Castles, S. (2011). 'Methodology and Methods: Conceptual Issues'. In *African Migration Research: Innovative Methods and Methodologies*, by M. and de Haas, H. (eds.) Berriane.

Kofman, E. (2003). 'Women Migrants and Refugees in the European Union'. Paper presented at EU/OECD Conference, Economic Effects and Social Aspects of Migration, Brussels. Available online at: www.oecd.org/dataoecd/15/12/15515792. pdf Accessed 10 October 2014.

Lutz, H. (2010). 'Gender in the migratory process'. *Journal of Ethnic and Migration Studies*, 36(10): 1647 - 1663.

Mahler, S., Pessar, P. (2006). 'Gender matters: Ethnographers bring gender from the periphery toward the core of migration studies'. *International Migration Review*, 37(3): 666-699.

Paşnicu, D. (2013) 'Action Guidelines for Effective Manage Labour Migration – Case Study for Romania'. *Annals of Spiru Haret University, Economic Series*, 4(1): 11-21.

Prelipceanu, R. (2010). 'A Gendered Approach to Temporary Labour Migration and Cultural Norms. The Case of Migration from Romania'. *Romanian Journal of Regional Science*, 4(1): 54-90.

Sandu, D. (2000). 'Circular Migration as Life Strategy'. *Sociologie Românească*, 2: 5-29.

Sørensen, N. (2005). 'Migrant Remittances, Development and Gender. Dansk Institute for International Studier, Copenhagen. Available online at: http://www.diis.dk/ graphics/Publications/Briefs2005/nns_migrant_remittances.pdf Accessed 15 October 2014.

Vlase, I. (2012). 'Gender and Migration-Driven Changes in Rural Eastern Romania. Migrants' Perspectives'. *International Review of Social Research*, 2(2): 21-38.

Vlase, I. (2013). 'Potential Factors of Gender Inequalities in Migration Flows. The Case of Romanian Roma in Italy and Spain'. *Calitatea Vieții,* 1: 15–30

Zaman, G. (2011). 'Some Theoretical and Practical Lessons to Be Learnt From the Economic Crisis Challenges in Romania'. *Annals of Spiru Haret University, Economic Series*, 2(4): 9-28.

*** European Commission (2013): Eurobarometer 72.5 (Oct-Nov 2009). TNS OPINION & SOCIAL, Brussels [Producer]. GESIS Data Archive, Cologne. ZA4999 Data file Version 5.1.0, doi:10.4232/1.11642

*** European Commission Report (2010): *Geographical and labour market mobility*, Special Eurobarometer 337, 221 p.

THE ROLE OF CHANCES EQUALITY AND SOCIAL INCLUSION IN TERMS OF ECONOMIC DEVELOPMENT*

Iuliana Petronela GÂRDAN
Spiru Haret University, Faculty of Marketing and International Business
Email: geangupetronela@yahoo.com
Daniel Adrian GÂRDAN
Spiru Haret University, Faculty of Marketing and International Business
Email: danielgardan@yahoo.com

Abstract

The article deals with the issue of equality of chances, seen from the perspective of the importance that it may have in relation to social inclusion of individuals and economic development at the level of national economy. Social integration of both women and men is a natural goal, specific to the current level of economic, social and cultural development for most countries. The active promotion of equality of chances not only at the level of legislative initiatives but also in the space of social and entrepreneurial initiatives is the most effective solution to provide a favourable framework for the development of the contemporary society. The article reviews the concepts addressed, the legislation in Romania on equality of chances, and discusses the complex relationship that exists between sustainable economic development and the promotion of equality of chances on a large scale at the level of a national economy.

Keywords: *chances equality, gender equality, social inclusion, sustainable development*

JEL Classification: F_{63}, O_{15}

Introduction

The concept of equality of chances developed in the context of the social, cultural and economic transformations specific to the twentieth century. This concept is related to a number of other concepts, important in the context of promoting human rights and the modern principles regarding the economic and social development. Equality regarding the development opportunities related to

* This paper has been financially supported within the project entitled "Femei active pentru integritate şi responsabilitate (Active women for integrity and responsibility)", contract number POSDRU/144/6.3/S/134919, This project is co-financed by European Social Fund through Sectoral Operational Programme for Human Resources Development 2007-2013. Investing in people! Major Area of Intervation: 6.3 "Promoting equal opportunities on the labour market".

education, equality before the law – these are themselves concepts that complement and interrelate with the equality of chances.

A specific issue of the equality of chances refers to the equality of gender – the need for it to manifest in all sections of social and economic life. In social life, women and men are not given the same roles, they do not develop the same needs and interests. Needs, interests and roles will be influenced by membership in a particular social class, age, culture, religious orientation, political or economic system the individuals belong to.

Despite the stated differences, in a modern society, based on democratic principles, it is necessary for the equality of chances to emerge naturally, regardless of gender differences, all human beings having the right to develop their personal capabilities and choose to use the opportunities without being limited by the imposed roles, i.e., both women and men to have the freedom to fairly realize their aspirations, without a gender category to be advantaged over the other. Thus, promoting the concept of equality of chances entails eliminating the discrimination of any kind, the possibility that each member of the society to be able to freely use the human potential he/she holds.

Review on the legislation on the equality of chances

Promoting the principles specific to the equality of chances, to non-discrimination, has been a constant in the legislative regulations developed in Europe. Through a number of normative acts, the EU has pursued the implementation of these principles at all the levels of the social, political and economic life of the Member States. Thus, the development of a legal framework designed to ensure the full participation of each person in the economic and social life without discrimination in terms of ethnicity, religion, sexual orientation or age was possible.

Along the time, the EU has adopted, ever since 1975, a series of directives on the application of some principles of equality targeting women and men. (www.mmuncii.ro) Thus, Directive No. 117 of 1975 stipulated the principle of equality in terms of remuneration, being followed in 1976 by Directive No. 207 on the principle of equal treatment between men and women as regards the access to employment, professional training and promotion, working conditions. Four years later, is adopted a new directive – No. 7 of 1979 stipulating the progressive implementation of the principle of equal treatment between men and women in the field of social security. Until 2000, shall be successively regulated, through various directives a number of issues regarding equal treatment between men and women who perform independent activities, including agriculture, maternity protection, improving the safety and health at work of pregnant women or lactating women, parental leave, equality in the field of employment and of various aspects related to everyday life, equal treatment of persons without discrimination on racial and ethnic origin etc.

In 2007, the European Union has declared the European Year of Equal Opportunities for All, on this occasion being established the fulfilment of four

objectives raising awareness on the right to equality and non-discrimination, stimulating the discussions on the means to stimulate the increase of participation within society of social groups representing potential victims of discrimination, recognizing the equality status and promoting a society based on a greater cohesion.

Furthermore, the European Union policy aimed at actively combating the stereotypes regarding the differences between men and women, changing behaviours, attitudes, norms and values that directly affect the human dignity.

In addition, a number of recent normative acts have regulated the equal access of women and men in the provision of goods and services, the establishment of community programs for employment and social solidarity, EU citizens' fundamental rights – rights that also stipulate the principles of equality of chances. In 2010, on the International Women's Day, the European Commission approved a document in the form of a commitment statement by which are also set out the principles of equality between women and men, principles that will govern the work of the Commission: (www.mmuncii.ro)

I. The principle of equal economic independence – promotes the idea of unrestricted access to professional affirmation and conditions for acquiring fair economic independence for women and men. Women are encouraged to reach their full potential through access to quality jobs and to balance work and family life.

II. The principle of equal pay for equal work and work of equal value – sets forth the need to reduce disparities between men and women in terms of remuneration (gaps in this respect are still recording at EU level – women are paid approximately 18% less than men per hour of performed work).

III. The principle of equality in decision-making – promotes the gender balance regarding the decision-making process from the political, economic life, the equitable representation of women alongside men in positions of power from the public life and economic activity, the promotion of women in positions with increased responsibility.

IV. The principle of respect for citizens' dignity, integrity and ending the gender-based violence – states the necessity of respecting the fundamental rights of female persons, seen as inalienable, integral and indivisible part of the universal human rights. It also promotes the complete ending of gender-based violence.

V. The principle of promoting equality between women and men outside the European Union as well – sets forth the promotion of the concepts of equality of chances, gender equality at the level of all EU external policies, of the contacts and internationally signed partnerships.

In terms of the legislation governing the issue of equality of gender and chances, Romania has an adequate legal framework, which allows the protection of the vulnerable social groups and the active promotion of the principles of the equality of chances. Thus, in addition to EU regulations that are currently recognized and applied by the Romanian state in terms of EU membership, Romania benefited from a legislative opening corresponding to promoting the principle of equality of chances even before 1990. Subsequently, there were promulgated a series of normative acts such as:

– Law No. 210 of 1999 on paternity leave

– Ordinance No. 137 of 2000 on preventing and sanctioning discrimination

– Law No. 202 on 2002, republished on equality of opportunity and treatment between women and men

– Law No. 53 of 2003 – The Labour Code, which regulates both the rights and obligations of employees in relation to employers without discrimination based on sexual orientation, age, etc.

– Law No. 217 of 2003 on combating and preventing domestic violence

– Government Decision No. 1054 of 8 September 2005 which states the regulation of organization and operation of county commissions and of Bucharest Municipality in the field of equal opportunities between women and men

– Government Decision No. 319 of 2006 on the National Strategy for equality of chances 2006-2009

– Emergency Ordinance No. 67 of 27 June 2007 on the application of the principle of equal treatment between men and women within the occupational social security scheme

– Emergency Ordinance No. 61 of 14 May 2008 on equal treatment between men and women in terms of access to goods and services and the supply of goods and services

– Government Decision No. 10 of January 9, 2013

Equality of chances in terms of gender equality

Gender segregation is still one of the serious problems that the society faces within the European Community. Women continue to bear various domestic responsibilities, regardless of the professional commitments of the job they have. Often women are engaged in occupations that have a flexible program or working hours, these being associated with the part-time program, which in its turn is associated with a lower salary.

In almost all the sectors of activity, women must face a gap in terms of wages, promotion opportunity and time thereof, the type of occupation in which they are engaged.

While there is a gap regarding wages in almost all fields, the jobs traditionally associated with men tend to be better paid than those traditionally associated with women, at least at the same level of requested competence. Even today, men and women tend to work in different jobs. This segregation of occupations is the main factor behind the gap that is to be found behind wages differences. Thus, in 2012, 53% of the US civilian employees were represented by men and 47% by women. Almost 40% of these were employed in traditionally female professions (social occupations, nursing, teaching). By contrast, less than 5% of men were working in these fields. 45% of men were engaged in traditionally men activities such as computer programming, aerospace engineering, firefighters etc.), while only 6% of women had these kind of jobs. (AAUW, 2014)

In the last 40 years, a reduction of the gender segregation in terms of the occupations women have compared to men was managed. However, although more

women had access to "traditionally male" occupations, the gap regarding the wages earned has maintained, for example a woman hired as a programmer is still on average paid less than her male counterpart.

Other studies confirm as well that, at European level, the trends regarding women's participation in the labour market are positive, if we analyse the statistics from 1994 to 2009. (Cipollone A., Patacchini E., Vallanti G., 2013, p. 21)

These statistics show that women's more active participation in the labour market is due to some complex factors of which we can mention the impact of individual characteristics of the labour offer for women, the differences present in the institutional framework on the labour market and of the social policy mix at the level of each country, the institutional changes oriented towards a model of flexicurity, the changes in the institutions that regulate the labour market and of the policy concerning this market at the level of each national economy.

The actions implemented in recent years in many countries of the EU and beyond, on the line of social protection and regulation policies have led to increasing the quality of employment opportunities available in the market, increasing the chances for disadvantaged people (including women) to re-enter the market workforce (facilitating re-employment rates), lower opportunity costs of employments (in relation to unemployment). The effects of these policies are different on categories of women depending on the type of family social support they receive, age and education level. Thus, the positive change of attitude towards the work done by women with children was favoured by the emergence and development of the types of part time jobs, for an indefinite period, which have not been seen anymore as "part-time" activities but as flexible ways of long term working and being paid. These positive effects were observed especially for women in an earlier stage of their professional life.

If the differences are maintained from the perspective of the gender, naturally the chances or possibilities of using the opportunities are endangered. We cannot talk about a real equality of chances if one way or another, different treatments or differentiations between the two genres manifest, both from the social and economic perspective – specific to the labour market.

The differentiations that apply to women come from the prejudices formed and transmitted in a particular cultural context, the stereotypes shared and transmitted as well in the same context. (Goudenhooft G., 2011, p. 23) In addition, these differences will correlate with certain forms of stigmatization as well.

Prejudices will be formulated and transmitted ideas within a social group, without having a real foundation, arguable and logic. Examples of such misconceptions related to gender differentiation are extremely well known, which also shows the degree to which they were propagated at the level of the collective mind (women are less intelligent than men, women are less able, women are not resistant to effort and stress etc.).

Stereotypes will represent repetitive and reproductive beliefs propagated in the collective mind. These are correlated to some extent with the preconceptions but represent a higher level of abstraction, with a much higher remanence over

time, and individuals manifesting a greater resistance regarding the removal of such stereotypes from their own values and beliefs.

Gender stereotypes are present on a large scale in the culture specific to the nowadays societies, regardless of the country. In some countries, however, one can observe a stronger presence of these stereotypes, feed by the social or religious organization.

One of the most common gender stereotypes refers to the different social roles played by men, respectively women (man is seen as fulfilling productive roles – leader, scientist, creator of culture, historian, etc.; while the woman fulfils reproductive roles – childbirth, raising and educating them, housekeeping, etc.).

These stereotypes are transmitted and augmented through education, through the interaction between individuals and, if they are part of the basic culture of the population in question, they become landmarks of behaviour and relationship once individuals will mature.

These behaviours, if all the members of the society accept them, cause a vicious cycle, individuals engaging in activities that reinforce the stereotypes. The influence of these gender stereotypes does not stop or is not limited to men women inter-human relationships, but they occur on the labour market, causing behaviours and phenomena that negatively affect the equality of chances of the two genders. First, a series of erroneous representations of the roles and attributions that men and women can have on the labour market is created. Second, stereotypes can create inferiority or superiority complexes as appropriate.

Although the legislative body, both internationally and particularly at European level, offers a multitude of normative acts governing the equal access to work regardless of gender, access to equal pay of the labour regardless of gender, access to similar working conditions regardless of gender, the issue of discrimination and of the existence of stereotyping requires a stronger involvement of the civil society, of the NGOs and associations that advocate for transparency and social equity.

Changing the perceptions and personal beliefs is a long process that involves learning from an early age the principles of non-discrimination and equality of chances. The education of children and youth should be done on both levels – both formally, through formal education systems and informally within the inter-family relationships. Only through a constant and consistent effort, this kind of misconceptions and stereotypes could be changed, creating the prerequisites for their real elimination from the collective mind.

Equality of chances in terms of access to education

Education is a complex process that is intended to provide members of the society the development and usage of their own intellectual and vocational potential at the highest possible levels. Equality of chances between genders in terms of access to education is a prerequisite for the actual social progress, for the affirmation of some democratic values.

Access to education must be done free, unrestricted for different individuals and different social groups. This access should not be restricted by any barriers, the issue of equality in education was seen in terms of the effort to divide the educational resources so that they be used rationally and correctly by all members of the society. (Lynch K., Baker J., 2005, p. 134)

The issue of the access to education can be analysed from the perspective of five essential factors that influence the effective access: equality in terms of resources, access to respect and recognition, care, love and solidarity, strength.

Access to education is closely correlated within society to the possession of the necessary economic resources. Deprivation of economic resources prevents the access to the same forms of education, subsequently, the cultural capital offered by the education institutions turning into economic capital. An individual who does not have access to economic resources cannot reach the highest levels of education and thus cannot acquire cultural capital, which he can later turn into economic capital. If gender inequalities are deep and are highlighted on the labour market, this can affect the family incomes and automatically can lead to situations in which children will not have an unrestricted access to higher forms of education.

The elimination of the serious economic disparities and state's intervention by ensuring a free access to the basic educational services can provide the solutions to the first cause of the inequalities in education – access to resources.

A second important aspect in managing the equality in education is represented by the provision in equidistant terms of respect and recognition. Some educational systems do not offer the possibility to recognize diversity. Thus, different treatments may appear depending on criteria regarding gender, religion, class, race, ethnicity, age, etc.

These treatments are materialized in different educational programs, different teaching styles. From the perspective of gender inequalities, these can manifest in the educational field as well, starting with the lack of attention paid in the class up to the unequal stimulation of the personal intelligence of children with gender differentiations.

The solutions to these serious phenomena are given by the powerful intervention of both state's institutions authorized to organize educational systems and civil society through its representatives. Implementing online educational systems, based on e-learning can also be a useful way to eliminate difficulties regarding access to education of some disadvantaged social groups. The e-learning systems can eliminate obstacles related with space, time and working hours for broad social categories. (Ionescu E.I., Oprea C.C., 2011, p. 404) Educating children and young people, as well as the promotion among teachers of the ideas regarding the acceptance of cultural and gender diversity is the basis for solving these situations

The relationship between equality of chances and social inclusion

The issue of promoting the equality of chances is closely correlated with that of social inclusion. Social inclusion is a concept that gives the measure of the degree of social cohesion and application of democratic principles in a state; it

guarantees the right of all members of the society to actively participate in its life, to assume social roles in full accordance with their own abilities, training level, personality and interests.

The promotion of a proper social inclusion cannot be made without first obtaining an equality of chances. In order for individuals to be able to socially include in a coherent manner, the essential condition is represented by the possibility to enjoy equal opportunities for development, for equal chances to use their own potential.

In addition, the social inclusion also refers to acknowledging the right of inclusion in the decision-making processes and not just enjoying their effects. (Ruth L., 2003, p. 7) Individuals must be able as well to express their will and interests in terms of the decisions that are taken at the level of social groups. Thus, social inclusion will refer to the active participation within groups, to the development of each ones potential. The concept of social inclusion as well as that of exclusion represents multidimensional concepts that do not refer, in a limited horizon, only to poverty and inequality. Social inclusion and equality of chances will potentiate each other.

Thus, as individuals enjoy equal chances, personal development and the affirmation of their own potential are stimulated. Once the individual is freely and unrestrictedly using his potential at a maximum level, the chances to successfully integrate into society grow proportionally. Once socially integrated, the optimal relationship with other members of the society, the active participation to the control and decision mechanisms ensures the individual increased possibilities to use the resources and the potential.

The role of equality of chances in terms of sustainable economic development

Equality of chances, poverty eradication and sustainable development are concepts that are intrinsically linked. Sustainable development takes into account multiple aspects of economic, social, environmental, political, etc. nature. The analysis of sustainable development starts however form the society's most important cells – the individuals. The way in which each member of the society puts himself forward, the participation in the social mechanism of the exchange actually determines the development potential and, automatically, the society's ability to implement sustainable development.

The manifestation of equality of chances, non-discrimination based on gender, allows all individuals within society to express their human potential in line with their own resources, capabilities and interests. Non-discrimination of women becomes a crucial element in the context in which woman's social role is highlighted by the amount of skills and characteristics she has accumulated so far. Thus, women have an active role in the economy, as economic and social agents, structurally being closer to the model of some real agents of sustainability.

Studies have shown that women are more likely than men to choose a lifestyle characterized by sustainability, to develop an environmentally friendly

consumer behaviour and to take sustainable decisions. (United Nations Development Program, 2012, p. 12) Therefore, it is essential to ensure a strong participation of women in key leadership positions from the perspective of the decision-makers who can implement the sustainable development process.

A sustainable economy model will enable women to become active in positions of producers, managers, sellers, promoters of sustainable business. From the position of entrepreneurs, women can more easily achieve the transition to a sustainable economy, getting involved in the environmental protection or the "green industries". The involvement of the economic agents from the level of the national economy must be complete in order to be able to talk about substantial changes towards sustainable development. That is why entrepreneurial initiatives that are built on these models should be encouraged. With a ratio of almost 25% of all small and medium enterprises in developing countries, the entrepreneurial initiatives led by women can make a difference if we talk about a real commitment towards sustainable development.

From the institutional and legal point of view, sustainable development requires the creation of the necessary framework and institutions to ensure the effective implementation of its specific principles. This legal framework should be complemented by elements specific to promoting the equality of chances, as the manifestation of human creative potential cannot be realized without a regulatory framework that guarantees its use in conditions of fairness and security. All social categories and existing groups should be able to have access to institutional resources used to implement sustainable development.

In terms of the policies and actions regarding the regulation of the global energetic system, a more active participation of women at the decision-making level, to the substantiation of the energy policy strategies is required.

The optimal representation of women within the analysis, implementation and decision groups represents another prerequisite for stimulating the sustainable development. The current lack of representativeness does not provide a healthy foundation for the decision-making progress concerning the sustainable development policies, both at the national economies levels and at the global one.

Sustainable development requires the engagement and the activity of a substantial number of change agents. Women, due to their intrinsic characteristics, represent potential change agents towards promoting the principles that lie behind sustainable development.

Conclusions and future research directions

The issue of efficiently promoting the equality of chances and social inclusion raises a number of question marks. Although in the last 40 years impressive efforts have been made at the level of regional and global institutions towards eliminating or alleviating the differences based on gender, race, religion, etc., relevant studies and analysis still indicate the existence of multiple gaps and of some differentiated approaches regarding the integration of individuals into the contemporary social and economic circuit.

There still are states and national economies where gender segregation or on religious grounds is present. There are still cultural stereotypes that promote the most diverse differences between genders, different social roles of men compared to women. In addition, visible disparity between the pay of men compared to women or differences in access to certain types of occupations still occur on the labour market, in different regions of the world. Even at the level of education systems, there are still discriminatory approaches for social groups considered peripheral, prejudices or artificial communication barriers.

All these elements paint a complex economic and social reality, characterized by dynamism and huge potential for change and evolution. The more and more powerful affirmation of women in the economic and social life, the active and interchangeable roles in the family structure, the involvement in the political or economic decision represent elements that support the development potential in the direction of equality of chances affirmation.

We believe that one of the extremely important lines of action, perhaps even decisive for the future, is represented by the stimulation of children and youth's education towards being aware of the need for equality of chances and social optimum in terms of the social inclusion of the individuals. The moment when opinion leaders of tomorrow will form, from a very early stage, a coherent vision, lacking inherited stereotypes and preconceptions, on the issue of equality of chances, of recognising the natural differences, imposed by the impartial social roles which men and women can take in order to build the social good, all the efforts made so far towards humanity's evolution and social progress will find their justification and the real basis for tangible results.

References

AAUW, *The simple truth about the gender pay gap*, Washington, 2014, pp. 1-25, http://www.aauw.org/files/2014/03/The-Simple-Truth.pdf.

Cipollone A., Patacchini E., Vallanti G., Women labour market participation in Europe: Novel evidence on trends and shaping factors, IZA Discussion Paper No. 7710, October 2013, p. 1-39, http://www.siecon.org/online/wp-content/uploads/2013/09/Cipollone-Patacchini-Vallanti.pdf.

Comisia Europeană, Comunicare a Comisiei către Parlamentul European, Consiliu, Comitetul Economic şi Social European şi Comitetul Regiunilor, *Strategie pentru egalitatea între femei şi bărbaţi, 2010-2015*, Bruxelles, 2010, p. 2-14, http://www.mmuncii.ro/pub/imagemanager/images/file/Domenii/Egalitate%20de%20sanse/Strategia%20UE%20pentru%20egalitatea%20intre%20femei%20si%20barbati%20%202010-2015.pdf.

Goudenhooft G., *The Influence of European Law Concerning Gender Discrimination in Romanian Labour Market: Some Aspects of Women's Migration in the EU*, *Journal of Identity & Migration Studies*, vol. 5, no. 1, 2011, pp. 21-36.

Ionescu E.I., Oprea C.C., Use of information technologies in education e-learning system, Conference proceedings of "eLearning and Software for Education" (eLSE), issue 01, 2011, pp. 403-406.

Lynch K., Baker J., *Equality in Education: an Equality Condition Perspective*, Theory and Research in Education, vol. 3, no. 2, 2005, pp. 131-164.

Ruth L., *The idea of social inclusion*, Social Inclusion Research Conference, University of Bristol, 12 July 2003, http://socialpolicyframework.alberta.ca/files/documents/2003_social_ inclusion_research_conference.pdf.
United Nations Development Program, Powerful synergies – Gender Equality, Economic Development and Environmental Sustainability, 2012, http://www.undp.org/content/undp/en/home/librarypage/womens-empowerment/powerful-synergies/.
http://www.mmuncii.ro/j33/index.php/ro/2014-domenii/egalitate-de-sanse-intre-femei-si-barbati/1005-council-of-europe-gender-mainstraming.

THE ROLE OF THE MODERN INFORMATICS SYSTEMS IN ASSISTED DECISIONS

Robert Gabriel DRAGOMIR
Spiru Haret University,
E-mail: robert73d@yahoo.com

Abstract

The present paper speaks about the complexity of the decisional phenomenon. First of all, we referred to the challenges of the informal society; strategic management is the one that occupies by them. Then we noticed that the most modern informational instruments are used by the strategic management in order to gain the best analysis and results. After that, we made references to the following solution of business intelligence: data warehouse, data cube OLAP and data mining. We presented their characteristics, advantages and disadvantages of usage one or another. In the end, we draw at the conclusions: the society has good premises of development by using such instruments.

Keywords: *decisional phenomenon, management informatics system, data warehouse, OLAP cube*

JEL Classification: C81

Literature review

The special literature treats the problem under discussion as being of a great importance within the scientific environment. This interests stands for the complexity of the present decision process. This implies the need to support the decision with the help of the performing informatics tools that are able to keep great volume of data based on accurate past experiments, inquire the great amount of information as the data type and offer scenarios for the future development of business.

Thus:

– **The new vision of the intelligent business is** (http://searchdata-management.techtarget.com): "Business intelligence (BI) is a technology-driven process for analysing data and presenting actionable information to help corporate executives, business managers and other end-users make more informed business decisions."

– **The informatics solutions for assisted decisions speaks about** (Maria Sueli Almeida, et al., 1999, p. 26): "Business intelligence tools can be broken down into three categories:

- query and reporting;
- online analytical processing (OLAP);
- information mining."

– **The main producers of platforms** capable to offer intelligent assisted solutions **are the following**: Microsoft and Oracle.

- **Microsoft** offers support with *SQL Server 2014* (http://www.microsoft.com) "SQL Server 2014 makes it easier and more cost effective to build high-performance, mission-critical applications, enterprise ready Big Data assets, and BI solutions that help employees make better decisions, faster. These solutions have the flexibility of being deployed on premises, in the cloud or in a hybrid environment, and can be managed through a common and familiar tool set."
- The **Oracle** Solution is *Oracle Database 12c* (www.oracle.com) "Oracle Database 12c introduces a new multitenant architecture that makes it easy to consolidate many databases quickly and manage them as a cloud service. Oracle Database 12c also includes in-memory data processing capabilities delivering breakthrough analytical performance. Additional database innovations deliver new levels of efficiency, performance, security, and availability".

Introduction

The modern informatics systems assure the technological support for the present informational society. The complexity of the decisional phenomenon is due to the great data volume and the abstract and suggestive form of any report. So, the contribution of the informatics systems for the management is substantial. They can generate from simple routine abstracts, to results of special situations generated on years, terms, semesters, months, weeks, days. Different special type of information required for strategic business decisions can be obtained using marketing research techniques. The widespread use of information technology and modern tele-communications enable different organizations to implement new ways of marketing research and collection of data techniques using internet based platforms in order to gather the information needed. (Bondrea A., et al., 2014, p. 119)

The strategic management has to be sustained by the informatics systems at the level of planning, control and decision-making level. Their essential role is to filter the information in an intelligent manner and to present it in a concise form, which intuitively orient towards correct and efficient decisional solutions.

The management informatics system (Doina Fusaru, Zenovic Gherasim, 2008, p. 56) (MIS) monitors and recovers data within the socio and economic environment, picks data from the company transactions and operations, filters and selects data and presents them to the managers as pieces of information. The necessity for MIS consists in the fact that the managers need to be informed on different levels of the company.

The informatics systems for assisted decision (SIAD) answer directly to the investigations as concern the causes of some situations, indicating ways of action, means of resolving, methods of analysis, but unimposing decisions for the structured or unstructured decisional environment. Their capacity consists in receiving and processing external data. Unlike the management informatics systems, that operated initially with data and the relations between them, SIADs

starts from managers to decision. The perspectives of the two types of informatics systems are different.

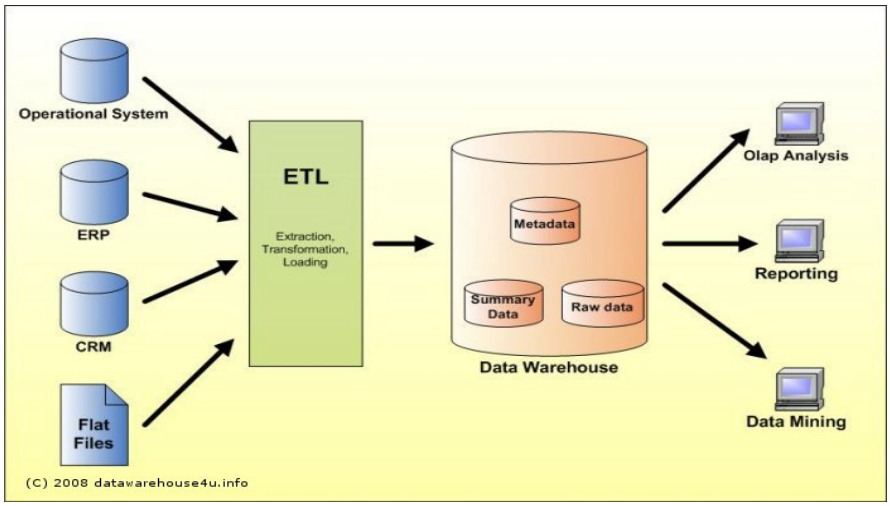
The solutions of business intelligence are to improve the processes of data analysis. The information is organized into structures that satisfy the needs of complete and complex analysis of data.

Data Warehouse

The concept of *data warehouse* (Nagabhushana S., 2006) was invented by Bill Inmon in 1990; he defined it as follows: a deposit is an oriented subject, integrated in time and of collecting the non-volatile data in assisting the decision of managing the process of decision assistance.

Data Warehouse is an assembly if data specially produced, in order to sustain the managerial decision. (Patil Preeti S., Rao Srikantha, Patil Suryakant B., 2011, pp. 33-37) Another definition of the data warehouse makes references on their provenience from different sources (distinct data bases with different structures). Data gathered from different sources, put in different places are usually stocked in one place, with a unified structure and typically resumed. This internal means of organisation allows an easier analysis of the data carried by extended companies. A data warehouse is considered a key factor of a decisional support system (DSS). The DSS have as an objective assisting the managerial process on different levels of decision, being usually the middle and strategic level, taking data from management information systems (MIS). (Fusaru D., 2004, p. 419)

Figure no. 1. *Data Warehouse Architecture*



Source: http://datawarehouse4u.info/index_en.html

The data warehouses, the multidimensional organization or the data mining tools are but a few examples of technology capable to offer functions of detailed analysis.

A data warehouse represents a database that is separately kept from the other operational databases of the company. Data in the source systems are extracted, cleaned, transformed and stocked in special warehouses in order to help the decisional process.

The data sources for the deposits are the following: current operational databases, old, archived databases and the external databases. To implement databases gives more strategic value to the companies. They also contribute to the costs reduction.

Dimensional modelling is a technique that allows conceptualisation and representation of the quantitative, measurable aspects of the activity, tight connected to its context. (Zaharie D., et al., 2001, p. 94)

Within the multidimensional model, one can meet several object types, having a great importance when analysing:

Dimensions – represent compound structures, attributes structured on different hierarchical levels. The OLAP council defines the concept of dimension as being a structured attribute of a cube, consisting in a list of members, seen by the users as being of the same type (as examples all months, trimesters, semesters, years represent the dimension of Time). (http://altaplana.com/olap/glossary.html) Dimension represents a very concise, intuitive manner of organizing and selection of data for exploring and analysis.

Facts tables are central tables. They contain attributes as of measure type and external keys towards tables' dimensions. The facts are usually numerical data that can be summed up and analysed at different levels.

Metadata represent the most important component of the data warehouse. In order to use the data warehouse, users have to know the type of data they can find in; metadata are not but data about data, data that describe the content of the warehouse.

The scheme of the data warehouse is a collection of objects, including tables, visions, indices and synonyms. There are several types of schemes used in their multidimensional modelling. The star scheme is the most frequent used model of organising the data warehouses.

The table containing facts stands for the central position and it is connected to the corresponding dimension tables.

A simple star scheme consists in one table facts and more tables of dimension. Here dimensions do not bare names; they contain redundant data that eliminate the necessity of the multiple connections between tables. There is only one connection in a star scheme, the one between the table facts and dimensions.

Data cube OLAP

Data warehousing and on-line analytical processing (OLAP) are essential elements of decision support, which has increasingly become a focus of the database industry. (Chaudhuri Surajit, Dayal Umeshwar, 1997, pp. 517-526)

Data warehousing technology is becoming essential for effective business intelligence, business strategy formulation and implementation in a globally

competitive environment, wherein larger and larger amounts and date (doubling and 18 months) are required to be processed faster and faster (in a few seconds) for comprehension of its real mining and impact. (Prabhu C.S.R., 2008, p. 1)

OLAP (Online Analytical Processing) is the technology behind many Business Intelligence (BI) applications. OLAP is a powerful technology for data discovery, including capabilities for limitless report viewing, complex analytical calculations, and predictive "what if" scenario (budget, forecast) planning. (http://olap.com/olap-definition/)

OLAP functionality is characterized by dynamic multi-dimensional analysis of consolidated enterprise data supporting and user analytical and navigational activities including: (http://www.moulton.com/olap/olap.glossary.html)

- calculations and modelling applied across dimensions, through hierarchies and/or across members;
- trend analysis over sequential time periods;
- slicing subsets for on-screen viewing;
- drill-down to deeper levels of consolidation;
- reach-through to underlying detail data;
- rotation to new dimensional comparisons in the viewing area.

OLAP (On-line Analytical Processing) is characterized by relatively low volume of transactions. (http://datawarehouse4u.info/OLTP-vs-OLAP.html) Queries are often very complex and involve aggregations. For OLAP systems, a response time is an effectiveness measure. OLAP applications are widely used by Data Mining techniques. In OLAP database there is aggregated, historical data, stored in multi-dimensional schemas (usually star schema).

Within the multi-dimensional analysis, the cube with more than three dimensions is named n-dimensional cube or hypercube. The OLAP council defines it as being a group of data cells arranged after the data dimensions. A tri-dimensional matrix can be seen as a cube where every dimension forms a cube face. On-Line Analytical Processing is a type of technology used for organizing the great databases; it also offers decisional support for business. OLAP databases are split into several cubes, every cube is projected by a cube administrator, in order one can easy use the necessary PivotTable and PivotChart reports.

OLAP applications have to assure the users a multi-dimensional vision over data. The multi-dimensional operations implemented in the multi-dimensional model are:

– *Drill Down and Roll Up* represent operations of browsing within the hierarchies of the dimensions by aggregation at the superior levels or detailing at the inferior ones.

– *Rotations* represent the most used operations for the multi-dimensional data structures and offer the user the chance of choosing the perspective on data.

– *Sections* represent visions or images (*views*), specific to different categories of users, by operations of sectioning, thus obtaining bi-dimensional slices.

The multi-dimensional modelling bases on a peculiar model, an own vision as concern requires of the multi-dimensional analysis, scientific language and formalism.

There is not up to present any multi-dimensional data model unanimously accepted. We consider it necessary for serving as standardization and future research.

The conceptual modelling of the data warehouses starts from dimensional models that group data in the relational tables in star or snowflake schemes, where we can find the quantitative data in tables of transactions aggregated especially on time unity (day) and on other criteria (client, service, product etc). (http://data-warehouse4u.info/OLTP-vs-OLAP.html)

Creation of an OLAP cube bases the multi-dimensional data structure. These data are stocked in a multi-dimensional data structure. Here we define the data source of the table facts and dimensions. The measure is the result of some combinations between many columns, as expressions. The options for memorisation are:

– *ROLAP* data are still stored into the relational database, together with aggregations;

– *MOLAP* memorized both data and aggregations in multi-dimensional structures;

– *HOLAP* data are stored in the relational database, but aggregations are stored in multi-dimensional structures.

The implementations of the data servers for OLAP processing include the following types of servers:

✓ *ROLAP* are intermediate servers that stand between the relational *back-end* servers and *front-end* client instruments. They use systems of *relational* or *relational extended* databases, including optimizations for every system of the type DBMS. As opposed to MOLAP, ROLAP technology tends towards a greater scalability.

✓ *MOLAP* represents servers based on multi-dimensional visualisations of data, through stocking motors of the multi-dimensional tables. Data are seen as structures of table data, as data cubes. The advantage of using a data cube is that it allows a rapid indexation of centralized and pre-calculated data. Many servers of MOLAP type stock data by using two levels: sets of organized data and sets of dispersed data. The more dense sub-cubes are identified and stocked as table structures, while the dispersed sub-cubes imply compressing technologies for an efficient way of stocking.

✓ *HOLAP* integrates the advantages of the two above-mentioned technologies: scalability and rapid indexation. This type of server allows the usage of great bulk of detailed data.

When speaking about the data warehouses, the more they are used, the more they evolve. This evolution takes place under stages. Initially, the data warehouses were used to generate reports and for answers to pre-definite interrogations. Progressively, they were used to analyse centralized and detailed data. Later on, they were improved with strategic and decisional competences, performing multi-dimensional analysis and complex operations as slice or dice. Nowadays, the data warehouses are implied in knowledge and strategic decision, using tools of data mining. Thus, the data mining tools can be grouped into access and regaining tools, tools for databases reporting, tools for data analysing and mining tools.

We can distinguish three means of applications within the data warehouses:

✓ *Information processing* (offers interrogations, basic statistical analyses, graphic reports, diagrams, tables; the present trend is represented by low price access instruments based on web technology, later on integrated into web browsers);

✓ *analytical processing* (allows OLAP basic operations, including operations such as *slice and dice*, *drill-down, roll-up,* slewing; generally it operates with centralized historic or detailed data; the force of this on-line analytical processing consists in multi-dimensional analysis of data in the data warehouses;

✓ *data mining* (discovers hidden model and associations, analytical models of building, classifications and performing forecasts and presents the results by using instruments of visualisation).

As concern data mining, consistent researches have been made on different platforms of data organisation: transactional databases, relational databases, spatial databases, base of text type etc.

The *OLAM – On-Line Analytical Mining* – named also OLAP mining integrates the analytical processing with data mining in multi-dimensional databases. Among many and different paradigms and architectures of the data mining systems, OLAM is extremely important, because it offers:

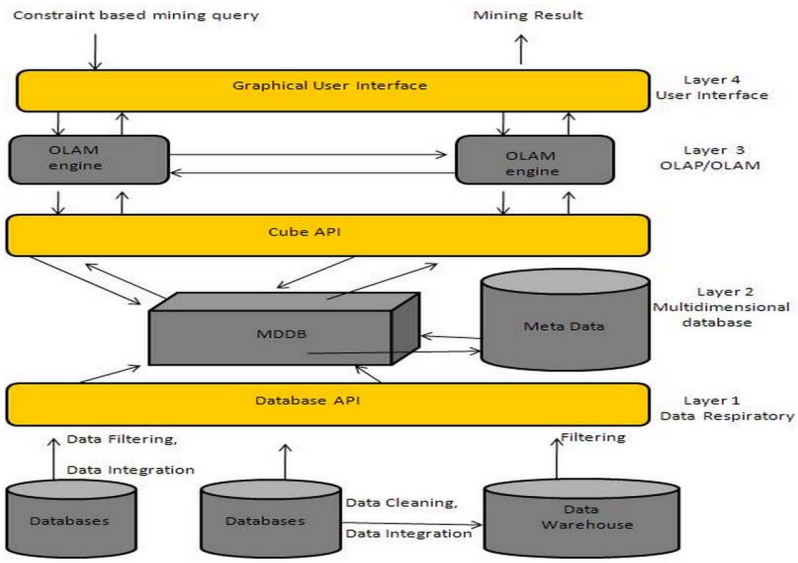
✓ *high quality of data in data warehouses.* The most instruments operate with integrated, relevant and cleaned data that need stages for pre-processing for cleaning, integration and transformation. Such a data warehouse becomes a valuable data source for OLAP, but also for data mining process. Data mining can be used for data cleaning and integration.

✓ *data infrastructure processing*. Information processing and data infrastructure analysis are built around data warehouses. They comprise accessing, integration, consolidation, transformation of the multiple heterogeneous data bases, facilitation when accessing and web services, reporting and OLAP analysis instruments.

✓ *analysis of data mining based on* OLAP. Data processing requires a preliminary stage of data mining. Users usually want to select relevant recordings, analyse them on different levels of detailing or to present the final results under different forms. The on-line analytical processing offers facilitations for mining on different data sub-sets and on different levels of abstraction, using specific processes: *drilling, filtering and slicing* of a cube of data and of some intermediate mining results.

✓ *functions of mining the on-line selected data*. There are many situations when the user does not know what kind of data he is to mine. By using the OLAP interrogation with multiple functions of data mining, the on-line analytical mining offers flexibility in order to select the desired mining functions for fulfilling the proposed objectives.

Figure no. 2. *Data Warehousing (OLAP) to Data Mining (OLAM)*



Source: http://www.tutorialspoint.com/data_mining/dm_evaluation.htm

Online Analytical Mining integrates with Online Analytical Processing with data mining and mining knowledge in multidimensional databases. Here is the diagram that shows integration of both OLAP and OLAM, as can be seen in the figure above.

Conclusions

Each of the software solutions presented above is able to valorise information. The strategic decision bases on two main components: the former of them is the past experience that is valorised in a proper way by the data warehouse; the later occupies with the possibility to create scenarios, using the data. Scenarios lead to simulations of the intelligent business. These stand on the force of the OLAP instrument and also the capacity of data mining of creating many new scenarios.

Although the manager is the one who can decide, it is important for him to be sustained during this process by these performing tools.

This work was supported by the project **"Excellence academic routes in doctoral and postdoctoral research – READ"** co-funded from the European Social Fund through the Development of Human Resources Operational Programme 2007-2013, contract no. POSDRU/159/1.5/S/137926.

References

1. Almeida Maria Sueli, Ishikawa Missao, Reinschmidt Joerg, & Torsten Roeber (1999), *Getting Started with Data Warehouse and Business Intelligence*, IBM Corporation, International Technical Support Organization.
2. Bondrea A. Aurelian, Geangu Iuliana Petronela, Gârdan Daniel Adrian, & Crețoiu Raluca (2014), 'Consumer rights protection in the context of online marketing research', Proceedings of the 4th International Conference on Law and Social Order, Constanta, 25 aprilie, vol. 2, New York: Addleton Academic Publishers, pp. 118-128
3. Chaudhuri Surajit, & Dayal Umeshwar (1997), *An Overview of Data Warehousing and OLAP Technology*, Appears in ACM Sigmod Record, 26(1), pp. 517-526, http://research.microsoft.com/pubs/76058/sigrecord.pdf, accessed on 10 November, 2014.
4. Fusaru Doina, & Gherasim Zenovic (2008), *Informatică managerială*, Bucureşti: Editura Fundației România de Mâine.
5. Fusaru Doina, Gherasim Zenovic, Lungu Ion, & Bâra Adela (2004), *Tehnici şi arhitecturi pentru micşorarea timpului de răspuns în sistemele cu depozite de date (data warehouse) (Techniques and architectures for decreasing the response time in the date warehouse systems),* Annals of Spiru Haret University, Economic Series, 4(4), pp. 419-426.
6. Nagabhushana S. (2006), *Data Warehousing: OLAP and Data Mining*, New Delhi: New Age International.
7. Patil Preeti S., Rao Srikantha, Patil Suryakant B. (2011), "Optimization of data warehousing system: Simplification in reporting and analysis." *IJCA Proceedings on International Conference and workshop on Emerging Trends in Technology (ICWET)*, 9(6), pp. 33-37.
8. Prabhu C.S.R. (2008), *Data warehousing: concept, techniques, products and applications*, 3rd edition, PHI Learning Pvt. Ltd.
9. Zaharie D., Albescu F., Bojan I., Ivancenco V., Vasilescu C. (2001), *Sisteme informatice de asistarea deciziei*, Bucureşti: Editura Dual Tech.
10. http://altaplana.com/olap/glossary.html, accessed on 10 November 2014.
11. http://datawarehouse4u.info/index_en.html, accessed on 25 October 2014.
12. http://datawarehouse4u.info/OLTP-vs-OLAP.html, accessed on 25 October 2014.
13. http://www.microsoft.com/en-us/server-cloud/products/sql-server/, accessed on 13 November 2014.
14. http://www.moulton.com/olap/olap.glossary.html, accessed on 25 October 2014.
15. http://olap.com/olap-definition/, accessed on 25 October 2014.
16. https://www.oracle.com/database/index.html, accessed on 15 November 2014.
17. http://searchdatamanagement.techtarget.com/definition/business-intelligence, accessed on 15 November 2014.
18. http://www.tutorialspoint.com/data_mining/dm_evaluation.htm

CRITICAL ANALYSIS OF IAS 2 „STOCKS", VERSION OF 2005

Mircea UNTARU
Romanian Academy, Bucharest, Romania
E-mail: mircea.untaru@andestm.ro

Abstract

This research paper aims to achieving a comparative analysis of the two versions of IAS 2 „Stocks" (variants of 1993 and 2005). The research is part of a larger study regarding the accounting processes carried out for the acknowledgement and assessment of the company stock, and the purpose of the study is to develop a new framework methodology for the acknowledgement and assessment of stocks.

The research is based on a series of work hypotheses: (I1) IAS 2 variant of 1993 needs to be reviewed according to the regulations and normatives in force; (I2) the necessity to review IAS variant of 1993 derives from the critics raised by the regulating authorities for stock and shares, by the professional accountants and by other interested parties, with regard to the reduction or elimination of alternatives, redundancies and conflicts from standards, and the solving of convergence issues; (I3) the 2005 variant of IAS 2 is the result of a limited reviewing of the 1993 variant of IAS 2, and needs to be further modified.

Keywords: *IAS 2 „Stocks", critical and comparative analysis, the International Accounting Standard, stock assessment*

JEL Classification: M_{41}

Introduction

The history of IAS 2 started with its first issuing in 1974, its endorsement coming one year later, in October 1975, under the name of IAS 2 „Evaluation and presentation of stocks within the context of the historic cost system".

In 1993, the Committee for International Accounting Standards modified the IAS 2 standard and published it in December 1993, under the name of IAS 2 „Stocks". The first signal for the modification of IAS 2 „Stock" occurred in 1999, through the elaboration of SIC 1 „Consistency – Various methods for the determination of stocks costs".

In 2003, the International Accounting Standard IAS 2 „Stocks" suffered some minor alterations, more in its essence than in its form, and the result was the current standard, which came into force in January 2005.

The fundamental objective of the IAS 2 „Stocks" is to offer the legal framework for the description of the accounting treatment of stocks. The specialised literature emphasises the existence of a fundamental issue in stock

accounting, namely the value of the cost that is to be recognised as asset and reported until the acknowledgement of the relevant income. IAS 2 „Stocks" provides for recommendations related to the determination of the cost and to its consequent acknowledgement as expense, including any reduction of the value down to the net achievable value. Moreover, the standard provides for recommendations related to the formulae for the determination of the cost, used for the calculation of stocks costs. (CECCAR, 2013)

The problematic of stocks accounting has been widely approached in the specialized literature. (Carl S.Warren, James Reeve, & Jonathan Duchac, 2013), (Ristea, M., & Dumitru, C., 2007), (Ristea, M., 2005), (Ristea, M., & Dumitru, C., 2003), (Needles, B.E., Anderson, J.R., & Caldwell, J.C., 2000), (Feleaga, N., & Ionaşcu, I., 1998).

Definitions given in such literature with regard to stocks all boil down to the same conclusion, namely that stocks represent the entirety of goods that intervene in the operation cycle, either intended to be sold under the same form (merchandise) or at the end of the production process (finished products), or to be consumed during the first exploitation. Stocks are included in the category of floating assets, and they classify as floating assets when they are being purchased, or as products for own consumption or products intended for selling, and they are expected to be achieved within 12 months from the date of the balance sheet. The characteristic of stocks is that they are consumed from the first exploitation, and they fully transfer their value on the achieved products. (Bradu, I., 2010)

The accounting of stocks is a modern issue of great interest for many entities, due to its significance with regard to the financial position and performance. Mainly, Stocks Accounting should be regarded with interest and responsibility by two categories of entities, namely: (Morariu, A., 2012)

a) the distribution entity (trader), meaning a retailer or a wholesale agent that has a single stock account – the merchandise stock (goods at their disposition, which they have purchased in order to re-sell);

b) the manufacturer, that ordinarily has three categories of stocks: raw materials, products in course of execution, and finished products.

Therefore, we may observe that the IAS 2 "Stocks" standard applies to the following categories of stocks, designated as floating assets by OMFP 3055/2009: (http://codfiscal.net)

a) stocks held in order to be sold, along the ordinary development of the company activity;

b) stocks in the production process, in view to be sold along the ordinary development of the company activity;

c) stocks in the form of raw materials, materials and other consumables that are to be used in the production process or for services supply.

In order to evaluate the assets of a company, there are several methods recommended by the international standards:

1. Evaluation in terms of cost history. By this method, assets are registered in terms of cash or cash equivalents paid upon purchase or in terms of the right value of the amount paid upon purchase. Debts are registered in terms of the equivalents

obtained in exchange for the bond, or, under certain circumstances, in terms of the amount that is to be paid in cash or cash equivalents in order to extinguish the debt, during the normal development of the company activity.

2. Evaluation of stocks in terms of current cost. The use of such method implies that assets are registered in terms of the amount in cash or cash equivalents that should be paid if the said asset or a similar asset were currently purchased.

Debts are registered in terms of the non-updated value of the amount in cash or cash equivalents necessary in order to currently extinguish the bond.

3. Evaluation of stocks in terms of the achievable value (of discount). Assets are registered in terms of the amount in cash or cash equivalents that may be obtained currently by normally selling the assets.

Debts are registered in terms of their discount value, respectively of the non-updated value in cash or cash equivalents that should be paid in order to extinguish the debts, during the normal development of the company activity.

4. Evaluation of stocks in terms of updated value. Such method implies that assets are registered in terms of the updated value of future net income in cash that is to be generated along the normal development of the company activities.

The general framework of International Accounting Standards states, in paragraph 101, that the evaluation base most frequently adopted by entities while assessing financial situations is the cost history method. It is commonly combined with other evaluation bases, as, for example:

– stocks, which are usually registered in terms of the lesser between the cost and the net achievable value;

– transactionable titles – in terms of the market value;

– debts regarding pensions – in terms of their updated value.

Certain entities use the current cost as an answer to the lack of capacity of the accounting model based on the cost history to solve problems related to the effect of the modification of non-cash assets prices.

The issue of interest is the stock assessment base.

According to the Accounting Standards, the base for the evaluation of stocks remains the “cost history”, combined with the “net achievable value”, in the form of the selection of “the lesser value between the cost of stocks and the net achievable value thereof”.

Description of the problem

Within the process of stock evaluation, a significant issue, both from the theoretical – methodological point of view and the practical one, is the establishment of the procedure applied for the accurate determination of the stock cost, of the net achievable value, as well as the application of such procedures to the accounting works and the works for the drafting of financial reports. Given the importance of the assessment of stocks in view to drafting and presenting financial reports, our research focuses on the problematics of evaluation.

The International Accounting Standard IAS 2 "Stocks" sums up a series of main characteristics and offers the legal framework for several activities related to the evaluation of stocks: (Florentin, D., 2013)

– possibilities of recognition for current assets in stocks area;

– determination of the value of the cost related to a stock element;

– procedures for the determination of the stock costs in function of the moment of the initial acknowledgement, as well as the treatments applicable to the stock evaluation at the time of the exit thereof;

– report with regard to the value attached to the stocks at the time of the initial acknowledgement of the financial status, up to the time when the income generated by such stock are acknowledged.

The standard covers the presentation of stocks, in order to get acquainted to and to understand the accounting treatment of stocks, by applying the cost history system.

The latest update of the International Accounting Standard IAS 2 "Stocks" happened in 2003, and the current standard entered into force on January 1st, 2005. The latest update was limited; therefore there are many requests for further modifications of the standard, mostly by professional accountants.

This research paper operates a critical analysis of the modifications brought to the IAS 2 "Stocks" variant of 1993 that have led to the issuing of the current standard, in 2005. The paper also emphasizes the need to further modify the IAS 2 "Stocks" variant of 2005.

The reasons for the further reviewing of the International Accounting Standard IAS 2 "Stocks" are as follows [9]:

– such reviewing may reduce or eliminate certain alternatives and redundancies with regard to the stock evaluation;

– such reviewing may clarify the area of application in the sense that there are certain stocks that cannot be assessed by means of the IAS 2 standard, and there are certain stocks that enter the area of the standard application and qualify as exceptional only in terms of assessment.

The category of stocks that are not included in the application area comprise: plants, animals or harvested agricultural products, obtained from such plants and animals. Moreover, the International Standard excludes building contracts (IAS 11 – Building Contracts) and the financial instruments (IAS 39), but the principles of the standard may apply to such categories, when "there is a decision regarding the manner of implementation of certain aspects of the excluded standards". (Greuning, H., Scott, D., & Terblanche, S., 2011)

The IAS 2 "Stocks" version, which has applied since January 1st, 2005, comprises 42 paragraphs, with equal authority, as well as the Annex and the Baseground for Conclusions. The preamble to the standard emphasises that "IAS 2 must be read within the context of its objective and of the Baseground for Conclusions, of its Preamble to the International Standards for Financial Reporting and of the General Framework for the Developing and Presentation of Financial Reports, as well as of the IAS 8 "Accounting policies, modifications of accounting

estimates and errors", which offers a baseground for the selection and the application of accounting policies in the absence of certain specific guides". (CECCAR, 2013)

In order to identify, in terms of concept and operations, the sense and the significance of the elements introduced by the latest version of the standard IAS 2 "Stocks", this research paper analyses the motivation of the amendments, as well as the contents and the utility thereof for the accounting treatment of stocks, and the development and presentation of financial reports.

This analysis has been developed also from the perspective of the provisions issued in the preamble to IAS 2, considering, for a start, that the **objective** of the Standard, namely "the description of the accounting treatment for stocks" focuses on issues like:

– the value of the stock that is to be acknowledged as asset and reported until the acknowledgement of the relevant income;

– the calculation of the cost and the subsequent acknowledgement as expense, including any reduction of such value down to the net achievable value;

– formulae for cost calculation that are to be used for the calculation of stock costs.

The comparative analysis of the current version (2005) and the previous version (1993) of the IAS 2 „Stocks" standard emphasises the areas that have been intervened upon, as well as the newly introduced elements. Table 1 shows a synthesis and a comparative tableau of the main structures and elements that differentiate the 2005 and the 1993 versions of the International Accounting Standard IAS 2 „Stocks".

Table 1

Comparative tableau of the IAS 2 „Stocks" standard variants of 1993 and 2005

No.	Domain/ Element	IAS 2 "Stocks" version 1993	IAS 2 "Stocks" version 2005
1.	Standard structure	Standard	– Introduction – Standard – Annex – Baseground for conclusions to IAS 2 "Stocks"
2.	Number of paragraphs	41 paragraphs	– 17 paragraphs, Introduction – 42 paragraphs, Standard – 2 paragraphs, Annex – 23 paragraphs, Baseground for conclusions
3.	Introduction		– motivation for IAS 2 "Stocks" revision – main changes

No.	Domain/ Element	IAS 2 "Stocks" version 1993	IAS 2 "Stocks" version 2005
4.	Standard		
4.1.	Definitions	– Stocks – Net achievable value	– Stocks – Net achievable value – Real value
4.2.	Purchase cost	– Includes currency variations	– Excludes currency variations
4.3.	Formulae for cost calculation	Introduces two types of accounting treatment: – basic treatment; – allowed alternative treatment	– Introduces one single type of treatment, through the elimination of the allowed alternative treatment.
4.4.	Acknowledgement as expense	Paragraph 32 "The acknowledgement of the sold stocks value as expense leads to the connection of the costs to the income from current activities"	Paragraph 32 from the 1993 version has been eliminated
4.5.	Presentation of information in financial reports	– paragraph 34 Financial reports will present the following information: c) accounting value of such stocks that have been evaluated in terms of net achievable value. – paragraph 36, Stocks Cost, calculated through LIFO formula, letter a) and letter b) – paragraph 37. Financial reports will present some of the following information (optional):	– paragraph 36 Financial reports will present the following information: – c) accounting value of such stocks registered in terms of the real value minus selling costs; – d) stocks value acknowledged as expense over the period; – e) value of any reduction of the stocks' value as expense over the period, according to paragraph 34; – paragraph 36, letter a) and letter b), LIFO formula, has been eliminated. – The optional presentation of the information in letter a) or b) has been eliminated, while the remaining request refer to the information in letter a) stock cost

No.	Domain/ Element	IAS 2 "Stocks" version 1993	IAS 2 "Stocks" version 2005
		a) stock cost acknowledged as expense over the period; **or** b) exploitation costs related to the income from current activities, classified after their nature and acknowledged as expense over the period.	acknowledged as expense over the period (see paragraph 36 letter d) stock value acknowledged as expense over the period)
5.	Annex	–	Amendments to other provisions
6.	Baseground for conclusions to IAS 2 "Stocks".	–	– They accompany, but are not part of IAS 2 and comprise: – introduction; – area of application; – formulae for the calculation of stocks cost.

Source: Created by the author, by use and interpretation of the two versions of IAS 2 "Stocks"

A first observation deriving from the comparative study of the two versions of IAS 2 "Stocks" standard is that the structure of the 2005 version is more complex, having an **Introduction**, the **Annex** and the **Baseground for Conclusions**. These new components of the IAS 2 "Stocks" standard accompany the proper standard, but are not part of the IAS 2 standard; nevertheless, this does not affect their utility.

The Introduction explains the reasons that have led to the revision of the Standard and emphasises the main changes that have been operated.

The Baseground for Conclusions presents the considerations and the arguments of the International Accounting Standards Board (IASB) that have been taken into account in order to issue revision decisions, based on the applicable professional reasons.

We appreciate that the two structures, the Introduction and the Baseground for Conclusions, are extremely useful for national accounting regulators, as well as for professional accountants, in order to understand the signification of the revisions and of the newly introduced elements, as well as the logic, the concepts and the reasons of the revised elements.

The Revision Motivation is the answer to the questions and critics raised by the regulating authorities for stocks and shares, by the professional accountants and

by other interested parties, with regard to the reduction or the elimination of alternatives, redundancies and conflicts within standards, and to the treatment of certain convergence issues. **It is a limited revision in view to the reduction of alternatives within the issue of stock assessment. The International Accounting Standards Board has not carried out a new analysis of the fundamental approach of stock accounting treated in IAS 2.**

Methodology and source of the data

The research methods used in this paper have been: (1) critical analysis and (2) comparative analysis of the International Accounting Standard IAS 2 "Stocks", variants of 1993 and 2005. The bibliographic resources that have served as a baseground for the critic and comparative study of the research paper are the two versions of the IAS 2 standard, from 1993 and from 2005. (http://oferteconta.ro)

Results obtained

The main results of the critic and comparative analysis of the two versions from 1993 and 2005 of the International Accounting Standard IAS 2 "Stocks" refer to the revised aspects introduced in the 2005 version, as well as to the interpretation thereof:

1. *Elimination of the phrase "held according to the cost history system" from the paragraphs that present the objective and the application area of the IAS 2 "Stocks" standard.*

This amendment is explained in the "Baseground for Conclusions" in the sense that, given the fact that in the previous version both the objective and the area of application referred to "the accounting treatment of stocks according to the cost history system", some analysts have interpreted such phrase in the sense that the Standard only applies in accordance with the cost history system and that it allows entities to select the application of other evaluation bases, such as, for example, the real value. Since this has not been intended as the definition of the "cost history system", the Board has eliminated such phrase from the standard text, also by clarifying the fact that the Standard applies to all stocks that are not expressly excluded from its area of application.

2. *Clarification of the application area.*

In comparison with the previous version, the IAS 2 "Stocks" version of 2005 emphasises on two types of stocks, with regard to its area of application. This classification leads to the conclusion that, with regard to the accounting treatment of stocks, we may distinguish two types of stocks:

- Types of stocks that are not within the area of application of the IAS 2 standard (paragraph 2, letter a), b) and c) also mentioned in the previous version);
- Types of stocks that are exceptional only in terms of the evaluation of the requirements comprised in Standard 2 "Stocks" (paragraph 3, letters a and b).

Therefore, there is a clear distinction between:

a. Stocks that are entirely outside the area of application of the Standard, described in paragraph 2, namely:

– production in process of execution within construction contracts and services thereof, that are covered by the area of application of IAS 11 "Construction contracts";

– financial instruments;

– biologic assets related to agricultural activities and to the agricultural production at the time of harvesting, assets that are covered by the area of application of IAS 41 "Agriculture";

b. Stocks that are outside the area of application of the evaluation requirements, but are covered by the area of application of other requirements of the Standard, described in paragraph 3.

In such cases, the Standard does not apply:

– to the evaluation of agricultural and forest related stocks that belong to producers, respectively agricultural production after harvesting and minerals and other mineral products, as long as they are evaluated in terms of the net achievable value according to well established practice within the activity sector (paragraph 3a);

– to the evaluation of stocks of stock exchange brokers, as long as they are evaluated in terms of the real value minus selling costs (paragraph 3b).

By examining the text of the Standard with regard to the area of application, one may notice that, in the case of Stocks that are entirely outside the area of application of the Standard, the reference is to categories, types of stocks, while, in the case of Stocks that are only outside the area of application of the evaluation requirements, but inside the area of application of other requirements of the Standard, the reference is to producers, respectively stock exchange brokers. We notice that the Standard allows for different treatments, mainly with regard to the holders of the stocks.

3. *Stock purchase costs*

3.1. The 2005 version of IAS 2 "Stocks" does no longer permit that the variations of currency that result directly from the recent purchase of stock invoiced in foreign currency be included in the purchase cost of stocks. This modification of the previous version of IAS 2 results from the elimination of the alternative treatment allowed for the capitalization of certain exchange differences present in IAS 21 "Effects of the currency exchange variations".

3.2. Paragraph 18 has been introduced with the purpose to clarify that, when stocks are purchased under delayed payment conditions, the differences between the purchase price for normal credit conditions and the amount paid should be acknowledged as interest expense in the structure of the purchase cost of stocks, over the financial period.

4. *Formulae for cost calculation*

In order to better mark the requirements of the "Consistency" principle, the new version of the IAS 2 "Stocks" Standard includes the provisions of SIC 1 "Consistency – Various methods for stock cost calculation", in order for entities to use the same calculation formula for all stocks with similar nature and utility for such entity.

The 2005 IAS 2 version gives up the optional concept of accounting treatments for the evaluation of stocks (basic treatment and allowable alternative treatment), by introducing a single type of treatment, through the elimination of the allowable alternative treatment. This version of IAS 2 does no longer allow for the use of the LIFO (last in – first out) formula for the calculation of stock costs. Within the 13 paragraphs of the Baseground for Conclusions (BC9 to BC21), there are clear motivations and explanations with regard to the decision of the Board to eliminate the allowable alternative treatment, respectively the LIFO formula, with regard to the stock cost calculation. Here are some of these reasons:

– LIFO treats the newest parts of the stock as first sold (used), and, consequently, the parts that remain in stock are the oldest. Therefore, the LIFO method does not cover a credible representation of the real stock flows;

– the use of the LIFO formula results in stocks acknowledged in the balance as values that have little to do with the recent levels of stock costs.

Therefore, the Board has decided to eliminate the LIFO method, mainly because of its lack of representation of stock flows. Nevertheless, the Board mentions that this decision does not eliminate the specific methods of cost calculation, which reflect stock flows. Thus, IAS 2 "Stocks" still allows for the use of the FIFO method, as well as of the "balanced average cost" in terms of the calculation of the fungible stock costs.

With regard to the LIFO method, the Baseground for Conclusions underlines the acknowledgement by the Board of the fact that, in some jurisdictions, the use of such method for tax purposes is possible only if the method is used also for accounting purposes, and the conclusion has been drawn that the analyses regarding fiscality do not offer an appropriate conceptual baseground for the selection of an appropriate accounting treatment and that it is not acceptable to allow for an inferior accounting treatment only because of the fiscal regulations and advantages within such jurisdictions.

5. *Presentation of information in financial reports*

The schedule and structure of the information related to the stocks that are to be presented in financial reports have been extended in the 2005 version, in order to offer a more complete report to users. Thus, beside the information indicated in the 1993 version, the new version requires information such as:

a) the value of stocks registered in terms of the real value minus selling costs;

b) the value of stocks acknowledged as expense over the period;

c) the value of any reduction of the value of stocks as expense over the period.

Conclusions

The critical and comparative analysis of the two versions of the IAS 2 "Stocks" standard of 1993 and 2005 confirms the hypotheses initially stated and that have formed the baseground of this research paper.

H1 The IAS 2 „Stocks" variant of 1993 needs to be reviewed according to the regulations and normatives in force, given the fact that, in 1999, there have been certain modifications of the Standard by the introduction of SIC 1 – SIC 1 "Consistency – Various methods for stock cost calculation", in order for entities to use the same calculation formula for all stocks with similar nature and utility for such entity.

H2 The necessity to review IAS variant of 1993 derives from the critics raised by the regulating authorities for stock and shares, by the professional accountants and by other interested parties, with regard to the reduction or elimination of alternatives, redundancies and conflicts from standards, and to the solving of convergence issues.

H3 The 2005 variant of IAS 2 is the result of a limited reviewing of the 1993 variant of IAS 2, and needs to be further revised. The 2005 version of the IAS 2 „Stocks" maintains the previous principles and requirements regarding the acknowledgement and evaluation of stocks (cost history), with certain amendments with regard to the alternative treatments and the allowance for certain categories of entities to evaluate stocks in terms of the real value minus selling costs. Therefore, with regard to the evaluation of stocks in view to financial reports, paragraph 9 maintains the requirement that „Stocks should be evaluated in terms of the lesser value between the cost and the net achievable value".

In this view, paragraph IN3 from the Introduction specifies that „For IAS 2, the main objective of the Board has been to perform a limited revision, in view to reducing alternatives for the evaluation of stocks". The International Accounting Standards Board has not carried out a new analysis of the fundamental approach of stock accounting treated in IAS 2.

This work was supported by the project **"Excellence academic routes in doctoral and postdoctoral research – READ"** co-funded from the European Social Fund through the Development of Human Resources Operational Programme 2007-2013, contract no. POSDRU/159/1.5/S/137926.

References

Bradu, I. (2010), *Politici şi tratamente contabile privind evaluarea stocurilor IAS 2,* Bucureşti.

Feleaga, N., & Ionaşcu, I. (1998), *Tratat de contabilitate financiară, vol. I si II,* Bucureşti: Economică.

Florentin, D. (2013), *Politici şi tratamente contabile privind evaluarea stocurilor IAS 2,* Bucureşti.

Greuning, H., Scott, D., & Terblanche, S. (2011), *Standarde internaţionale de raportare financiară,* Bucureşti: Institutul Irecson.

MFP 3055/2009, *Reglementări contabile conforme cu directivele europene,* http://codfiscal.net/39020/mfp-modificarea-si-completarea-unor-reglementari-contabile-omfp-30552009-proiect-ordin.

Morariu, A. (2012), *IAS 2 convergențe şi divergențe între IAS 2 şi norma națională (OMFP 3055/2009).*

Needles, B.E., Anderson, J.R., & Caldwell, J.C. (2000), *Principiile de bază ale contabilității*, ediția a cincea, Chişinău: Arc.

Nica Dumitru (coord.), Ionescu Cicilia, Dobrin Marinică, Balu Mariana, Ionescu Eduard, Predescu Iuliana (2007), *Evaluarea întreprinderii*, Bucureşti: Editura Fundației România de Mâine.

Ristea, M., & Dumitru, C. (2007), *Tratamente contabile şi informaționale privind stocurile*; Revista Gestiunea şi Contabilitatea Firmei.

Ristea, M. (2005), *Contabilitate financiară*, Bucureşti: Universitară.

Ristea, M., & Dumitru, C. (2003), *Contabilitate financiară*, Bucureşti: Mărgăritar.

Standardul IAS 2 "Stocuri" varianta 2005, IFRS 2013, Bucureşti: CECCAR.

Standardul IAS 2 "Stocuri" varianta 1993, http://oferteconta.ro/index.php/documentatie/category/4-ias?download=151:ias-standardul-international-de-contabilitate-ias-2

Warren Carl S., Reeve James, & Duchac Jonathan (2013), *Accounting*, South Western Educ Pub.

BOOK REVIEW

FRANCESCO PASTORE

The Youth Experience Gap

Explaining National Differences in the School-to-work Transition

Francesco Pastore is qualified as full professor of Economic Policy. Currently, he is Assistant Professor of Economics at Seconda Universita di Napoli. He is also secretary of the Italian Association of Labor Economics (AIEL) and a member of the executive board of the Italian Association of Comparative Economic Studies (AISSEC). His main research interests are in labor and education economics. He is also interested in development and transition economics. He has contributed extensively in several such fields as regional unemployment differentials, school-to-work transitions, labor market dynamics, gender discrimination, human capital investment, public employment services and passive as well as active labor market policy, labor market consequences of international trade and nonprofit organization.

The book entitled *The Youth Experience Gap. Explaining National Differences in the School-to-work Transition, published in the year 2014,* points the youth experience gap as a key concept that provides the basis for to explain the meager youth employment opportunities and earnings, but also national differences in youth labor market outcomes. Observers are divided as to optimal design of youth employment policy. Liberalist economists believe that the market itself should address the youth disadvantage having in view that more flexible labor markets should also guarantee greater labor turnover, including temporary work, so as to allow young people to move from one job to the next until they accumulate the work experience they need to become more employable and find the right career. In contrast, other economists criticize entry flexibility and temporary work, claiming that the former type helps only the most skilled and motivated target groups, while the latter only allows young people to gather generic, not job-specific work experience. To help young people fill in the gap and ease the school-to-work transition, every OECD country provides its own mix of policy instruments, including different degrees and types of labor market flexibility, of educational and training systems, of passive income support schemes, and fiscal incentives. Five different country groups are detected whose outcomes in terms of youth unemployment are dramatically different: (a) the North European; (b) the Continental European; (c) the Anglo-Saxon; (d) the South European; (e) the New Member States.

The book is divided into seven chapters that include: some stylized facts regarding youth experience gap, the youth experience gap, the mainstream approach to the causes of youth unemployment, weaknesses of the mainstream approach, the interventionist approach, the classification of school-to-work transition regimes, discussion and summary remarks.

The present book addresses to the segment of readers who includes students who are specialized in labor economics, political economy and business, graduates skilled in the art, and stakeholders and other specialists on the labor market.

17 noiembrie 2014
Daniela PAŞNICU Ph.D. Professor,
Spiru Haret University, CSI, INCSMPS

Redactor: Mihaela N. ŞTEFAN
Tehnoredactor: Marcela OLARU
Coperta: Magdalena ILIE

Bun de tipar: 19.12.2014; Coli tipar: 4,75
Format: 16/70×100

Editura Fundației *România de Mâine*
Bulevardul Timişoara nr.58, Bucureşti, Sector 6
Tel./Fax: 021/444.20.91; www.spiruharet.ro
e-mail: editurafrm@yahoo.com