

LABOUR FORCE MOBILITY – FACTOR OF ECONOMIC GROWTH IN ROMANIA

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Abstract

The paper aims to identify and synthetically present some factors (demographic-economic, technologic, socio-politic, educational of cross regional disparities) which produced, at the beginning of the 21st century, a series of new migration characteristics compared to previous periods, which generated the potential for transformation of the migration processes from the point of view of the typology, level, structures, intensity, costs and benefits.

Also, the paper has in view to perform a multiple analysis of labour force mobility in Romania, by regions, with the aim to identify the social and economic impact of Romanian migration.

Key-words: *labour force mobility, socio-economic impact of migration, economic growth, remittance*

JEL Classification: J21, J30, J61, J62, J82

1. Introduction

In 1849, Victor Hugo said: *It would come a day when all nations of this continent, without losing distinctive characteristics or glorious individuality, would fusion and would form European brotherhood. It would come a day when would exist only battlefields on spiritual level. It would come a day when bullets and bombs would be replaced by votes.* It took more than a century that his utopia predictions to become a reality.

The enlarged European Union belongs to a world that exists in a rapid and radical process of changing; this is the reason for a new stability. In this conjuncture, Europe should not concentrate only on its development, and should be involve in globalization phenomenon. Although it had been obtained remarkable results in the field of commercial policy, European Union had a long road before it would be able to express with a single voice, or it would be present itself as a credible actor at world politics level.

The enlargement of European Union and concomitantly the liberalization of labour force movement determine substantial increase of migration flows' dimension. This phenomenon had an impact on economic growth both on short time and in long time, both on national and regional level.

For the European area, the main incentives for an intensified circulation and migration of persons and labour force are the EU enlargement in successive waves, accelerated demographical ageing of the (West) European countries and economic reasons. To these add up the pressures of globalization, which require new migrating

attitudes and behaviours, an increased flow of territorial movements, and a peculiar significance attached to the temporary migration.

Integration of Romania within the EU means, among others, an increase in the EU population by 22 million persons and quite high labour resources, relatively young, but incompletely used and turned to the best account. To these add up an economy in full transformation/adaptation, which has not yet fully defined its development directions. In such a context, integration of Romania is a true challenge, and labour migration and mobility some of the main problems.

Labour force mobility is approached both theoretically and practically in connection with the need of a balanced social and economic development at the sectors and regional levels, combining the structural aspects with the functional ones.

Labour force mobility in Romania represented a complementary result to privatization and restructuring and not a factor of economic development. The labour market was characterized by lack of opportunities for professional development, precarious jobs, weak functioning of the mechanisms/policies active on the labour market, seldom defective (re)allocation of labour force.

2. The social and economic impact of migration

The mobility of people in general but mostly of labour force, can influence in a different way the quality of human capital of a country/region of origin, but also that of a destination country/region.

The quantification of socio-economic impact of migration both origin country/region and destination country/region is a very complex process that means the knowledge of costs and benefits at individual, local, regional, national and international level of migration, of world conjuncture analysis.

The effects of massive external and internal migration, on short and medium term are important for economy. The high flow of younger workers has impact on demography and contributes to labour force ageing, reducing the dimension of active population and the number of contributors to social assistance budgets, this it would increase the pressure on social insurance expenses.

In the same time, migrants send important money transfers to families that contribute substantially to the surplus of payments balance. These transfers formed a network of private social insurances that compensate the defects of public system. The research had pointed out that workers had send to Romania, average 200 euro per month, a total of 2 billions euro per year, a sum higher than annual flows of foreign direct investment. That increases private consumption and investment; is clearly than in some Romanian cities and villages it had been gained constructions and services sectors.

Studies made by internal and international organisms indicated the fact that Romanian people have the higher tendency for migration for medium (few years) and long period of hiring, comparatively with other countries from Central and Eastern European countries.

This fact had repercussions on some sectors of national economy, when it feels the lack of labour force. For example, in constructions, one of the most affected sector by the shortage of qualify workers (as carpenters or joiners, etc.), data from National

Institute for Statistics indicates that the value of constructions works is increasing from year to year, an important weight is represented by the new constructions.

If EU countries will continue to attract human capital from Romania, then their economy will evolve faster and in this time the Romanian economy will be left behind. As a conclusion, on long term, the EU and Romania economic growth will have divergent configurations.

3. The impact of Romanian accession to the European Union on migration

People mobility/movement and especially of labour force could influenced differently the quality of human capital of origin country/region, but also of destination country/region.

The quantification of socio-economic impact of migration both on origin country/region and guest country/ region is a very complex process that means the knowledge both of costs and benefits on individual, local, national and regional migration, and the analysis of world conjuncture in which takes place this process.

The European Union enlargement process means growth and development strategies for member states (the scope being the adaptation to the imposed requests) and, also, corresponding policies for the institutionalization and legitimatization of these European strategies.

The policy of structural funds allocation is integrant part of European regional policies and had as scope the diminishing of socio-economic development departure between members states the increase of economic and social cohesion between regions. It represents also, an answer to the effects of European economy principles.

The European financial instruments have as main role co-financing in member states of interventions in principal domains, both on those that have a region impact and on horizontal interventions that favour the communication between responsible institutions and beneficiary states. The European principles that permit intervention in European funds are: subsidiary, additional, complementarities, partnership, compatibility, multiannual and concentration. All these principles converge to the accomplishment of European Union main objectives, considerate principal axes of European policy for financing through structural funds: convergence, competitiveness and labour force occupation, European territorial cooperation.

For Romania, the occupation's evolution was divergent and it was characterized through the allocation of work resources mostly in the sectors with a reduced efficiency: agriculture and industry. The main identified problems regarding the structure of Romanian labour force, comparative with EU15 and EU25 are:

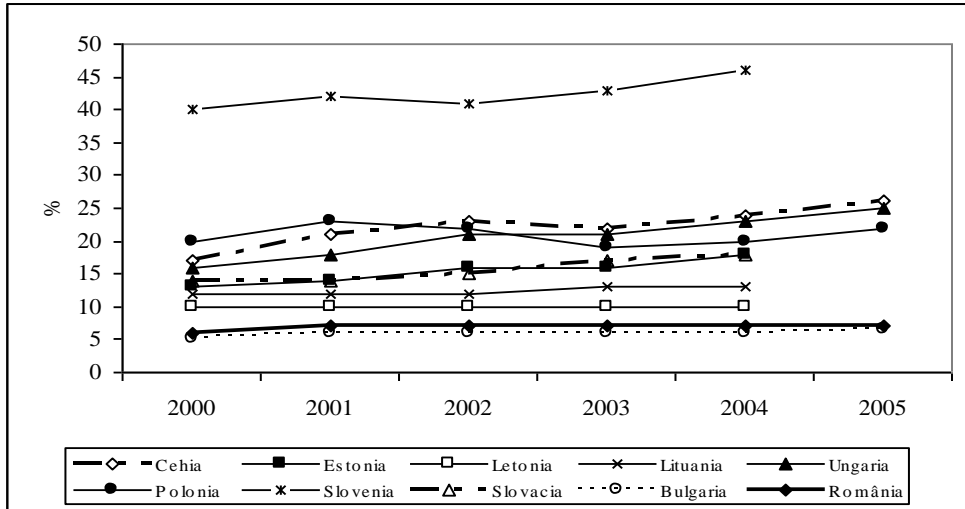
i) high weight and slightly decreasing of occupied population from agriculture, starting with 2003;

ii) increasing weight, but still reduced, of occupied population from services (approximately half from the EU ones);

iii) the diminishing of occupied population from industry;

iv) weak mobility of labour force from agriculture and industry to services sector.

In Romania is recorded a *reduced cost of labour force*; this fact influences the localization of activities intensive in this production factor (fig. 1).



Source: Eurostat statistics, www.eurostat.eu

Fig. 1. Relative levels of labour force hour costs (EU15=100, (%))

The reduced level of Romanian economic technology leads to a reduced productivity of work, comparatively with the new EU member states; and that erodes a part of reduced wages advantage.

4. Determinants of interregional occupation

Many specialized papers deal with the problem of factors that determinate, generally, regional behaviours of migration. It could be said that from all migration's components, the demographical ones are most volatile and interact directly with other domains of society, as labour market, politic and institutional factors. Non-demographical characteristics could constitute useful information for the stipulation of regional distribution of international migration.

There is an important difference between migration determinants at national level and the ones at regional level. Determinants that could vary between regions are classified in groups:

- economic factors (economic structure, labour market, etc.);
- dwellings market (quality);
- metropolitan character (urban level, infrastructure);
- location (regions borders, distance against borders);
- regional advantages (clime, relief, etc.);
- immigrants' networks.

The first five determinants refer to external characteristics, especially at non-demographical characteristics of regions. The last determinant is related directly with immigration flows.

Traditionally, migration is clearly related with regional differences from economic development. Migrants are often attracted by the regions with rapid economic growth, and in the same time regions less prosperous tend to experiment important flows of emigration.

Empirical studies for the investigation of relative impact of different determinants on migration flows' dimension and distribution had been made by a series of researchers. For example, Zagórski had formulated and tested a number of hypotheses regarding the impact of regional economic structure on regional immigration from Australia. One of its study conclusions was that independence from economic factors, between immigration and metropolitan character of region is a negative correlation. Those regions where an internal emigrant released living space attract international immigrants. Also, a number of other socio-economic characteristics of regions represent a determinant factor of immigrants' destination.

Another tested hypothesis was the one that affirmed that economic power of region and its metropolitan character have an indirect impact on conditions from labour force market. High unemployment implies reduced immigration and vice-versa. This hypothesis had been not confirmed in the analysis made by Zagórski. The unemployment has not contributed to the explanation of regional distribution when it was replaced with other factors.

The industrialization had created changes on labour market, but had destroyed, also, the traditional mechanism of personal insurance. When industrial sector stagnated, workers could not move so easy from a sector to other. Rapid immigration and population' increase had mean that an increasing weight of labour force market had lost the connections with agriculture.

Keyssar suggests that many institutions had initially appeared as a defence modality against labour force market. At the end of 19th century, commercial unions had increased in power and one of the most important functions of these was the offering of different modalities for protections against unemployment and inconstant income.

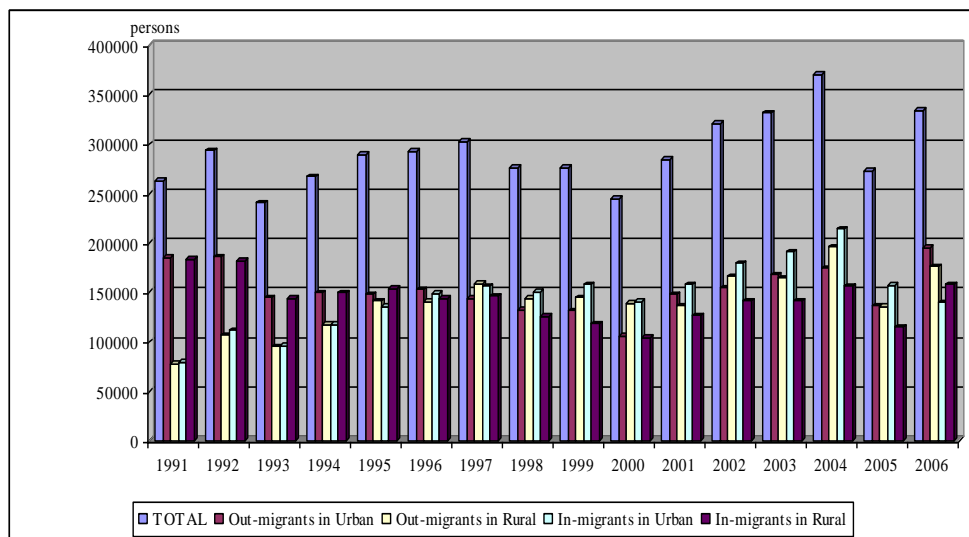
In Sweden, industrialization had begun only at the end of 19th century. Montgomery and Olofsson papers indicate the fact that unemployment problem in Sweden appeared long before the apparition of industrialization society and that the first attempts for an unemployment policy (in modern sense) had been recorded only at the beginning of the 19th century.

5. Determinants of Romanian interregional occupation

Internal migration's flows played an important role in the configuration of regional demographical typologies. Both intra- and inter-district migration are influenced by the general level of economic development and by the presence of big urban centres.

In 1990, in Romania it had been recorded the higher migration flow from rural areas to urban ones, due to the elimination of restrictions regarding residence's stabilization in some cities (over 616,000 from a total of 786,471 persons implied in internal migration flows in the year 1990 had left rural areas to urban areas). After 1992, in the context of increasing urban unemployment, dwellings and utilities' costs had increased; Law of land fond had appeared and it had been recorded a return

tendency, from urban to rural. Thus, in 1997, for the first time in Romanian social history, migration flow from urban to rural had outrun the migration flow from rural to urban (fig. 2).



Source: Romanian Statistical Yearbook, 2007, National Institute of Statistics.

Fig. 2. Evolution of Romanian migration movement rural-urban

Internal migration flows are determined mainly by the regional difference from a series of indicators, from which:

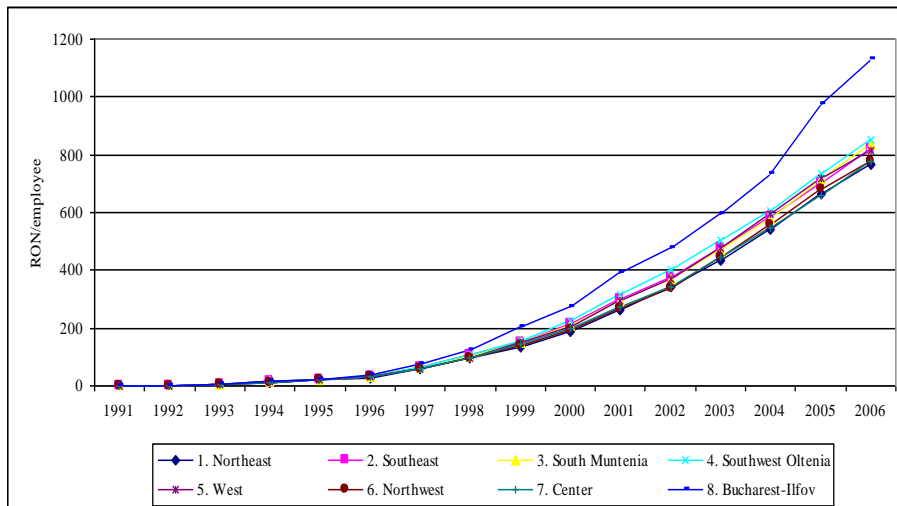
- from demographical point of view, Romania is characterized by important regional differences. Sub-Carpathians areas and those strongly urban are characterized by high densities of population, in contrast with mountain areas or the ones from Danube Delta and meadow. Most of the cities are in south, in centre of Transylvania and Moldavia. Regarding the structure of population age, this is relatively equilibrated in urban areas, but strongly older in rural areas;

- labour market represents another specific characteristic of current Romanian society and presents important regional variations. Restructuring and transformation process of economy, from all Central and Eastern European countries, had imposed the adopting of a new model of labour market. Beginning with politics, ideological and economic reforms, central-planned model was over fulfilled, old and it had been replaced by a new model, characterized by the liberalization of labour market, the increase of workers in private sector, the extension of state regulation functions, regarding the used of labour force;

- the collapsed of economic activity, especially in the first years of transitions, had profoundly marked Romanian labour market. Occupied active population had decreased, due to production's decline, and the unemployment had increased up to over 10% from active population – at middle 1995, and new increase are estimated in the context of new reform policies, settled by Romanian Government;

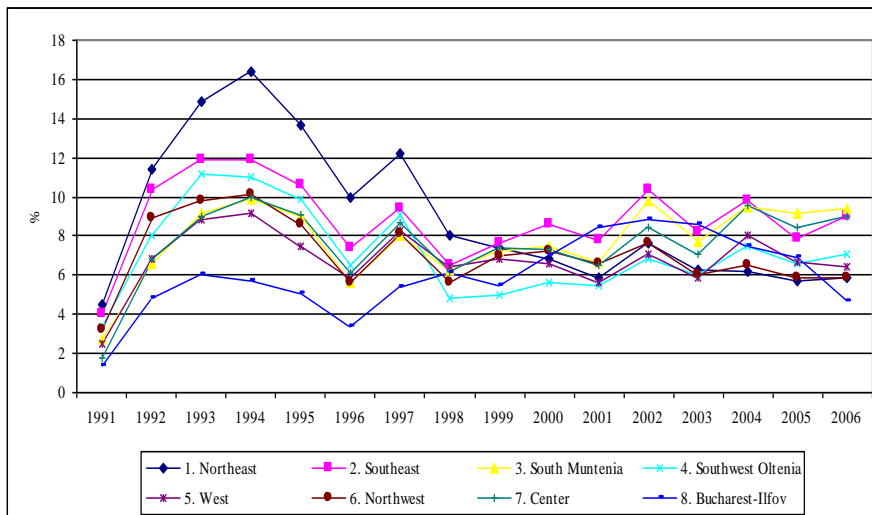
- the higher unemployment rates are visible, mostly, in the regions with forced industrialization, as Moldavia, Oltenia and North Transylvania. At present, private sector includes almost 50% from labour force, but many public factories maintain a supra-dimensional number of employees.

The analysis of internal migration after age shows a higher mobility of adult persons, with ages between 20 and 34 years. This represents over 43% from total migrants. If are taken into consideration their children, it means that over 63% from migrants are younger persons. As causes of interregional or external migration can be enumerated: wages differences from an area to another (fig. 3), unemployment rate (fig. 4).



Source: Romanian Statistical Yearbook, 1995-2007, National Institute of Statistics.

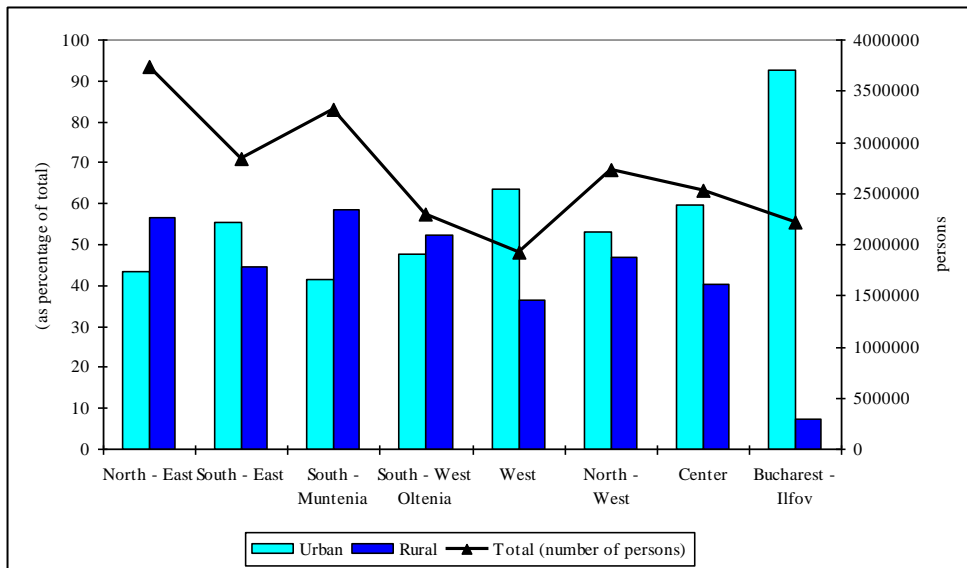
Fig. 3. Evolution of nominal average net earnings in Romanian main regions



Source: Romanian Statistical Yearbook, 1995-2007, National Institute of Statistics.

Fig. 4. Evolution of unemployment rate in Romanian main regions

These factors, together with the ones that are characteristic for regions made that population from Romanian main regions to be different, and the analysis of available statistics data distinguished a diminishing trend in all these regions, more emphasized after 2001. Data analysis from fig. 5 showed that, in 2006, the evolution of population number in North-East region is net superior to all other regions, even if after 2001 was recorder in this region the same trend – slightly decreasing – with a stabilization tendency after the year 2002.



Source: Romanian Statistical Yearbook, 2007, National Institute of Statistics.

Fig. 5. Population's evolution from Romanian main regions

6. Labour force and migration at Romanian regions levels

In **Bucharest-Ilfov** region, occupation rate of labour force was approximately 50% in the year 2005.

The demand of qualify labour force was higher in Bucharest-Ilfov region, thus – combined with the opportunities offered by capital (urban life style, prestige) – occupied population had a higher level of qualification and education.

Unemployment rate from 2005 is reduced (2.4%) comparatively with national average (5.9%) and the possibility to find a job is real. Mostly registered unemployed have reduced level of education, that means that Bucharest-Ilfov region is confronted with a demand for qualify labour force. In these administrative components, unemployment rate had values of 2.0% in Ilfov and 2.4% in Bucharest.

Regarding internal migration, beginning with 2001, the balance of migration increase had become positive for capital, having an annual average of approximate 5,000 units.

Civil occupied population in **South Muntenia region** was, at the end of 2005, 1,188.9 thousand persons.

Region's south districts are mainly agricultural, with a high weight of occupied persons in agriculture: Teleorman, Giurgiu, Călărași. Prahova and Argeș districts are characterised by a high-occupied population in industry and services.

Regarding unemployment rate, at December 31st 2005, was 7.3% at region level, pointing out the difference between south and north; the highest unemployment rates are recorded in Ialomița and Călărași districts and the smallest ones in Prahova and Dâmbovița districts. The lack of work places in rural areas determinate a massive outflow to Bucharest and younger' migration to Western Europe and this way small villages and cities are depopulated.

The weight of civil occupied population in total population in **Southwest Oltenia region** recorded a reduced level against country average. At district level, the higher occupation level is recorded in Vâlcea district and smaller ones in Olt district.

Labour market reflected tendencies from national level. On economic sectors, civil occupied population is concentrated in agriculture and forestry (42.1%), industry (26.9%) and services (31%).

The unemployment rate in 2005, in region, was 7.4% – a higher value than the average at national level (5.9%).

The lack of adequate work places had determinate also population's outflows to unqualified work abroad. Thus, in '90 the outflow was recorded to Serbia, but after the Yugoslavian crisis, the privileged destination had become Italy and Spain. A relative reduced level, comparatively with other regions; remarks the external migration from South-West Oltenia region but this phenomenon is intensified in the conditions of delayed measures for economic growth and increasing population's pauperization.

Labour force of **West region** represents a factor that contributes mostly to the socio-economic development; this is motivated, flexible and innovative, with a high level of specialization and contributes to the development of a dynamic entrepreneurial medium.

In 2005, civil occupied population represented 834.9 thousand persons, with a significant weight in tertiary sector, followed by industry and agriculture. The weight of civil occupied population had recorded the highest values in Timiș and Arad districts.

Unemployment rate had known fluctuations in the interval 1991-2005, from 2.5% in 1991, to 12.6% in 1999, with a maximum of 21.3% in Hunedoara district, due to cuttings off from mining sector, continuing to decrease and reaching in 2005 a value of 5.1%.

After 1990, due to the possibility of departure abroad for work, an important number of specialists had left the country, following old traditional relations, to German countries and Hungary. These are missing today, when more important investors based on factories in this region.

Civil occupied population in **Northwest region** was, in 2005, 1,145.5 thousand persons. Intraregional differences are strongly related to the industrialization level, the districts with more and sooner industrialization – Cluj and Bihor – have higher weights

of civil occupied population, and the districts with less and delayed industrialization – Satu Mare and Bistrița-Năsăud – have reduced weights.

Industrialization level has strongly influenced the unemployment rate. Due to the industry restructuring, in the last years, Bistrița-Năsăud and Cluj districts had recorded the higher unemployment rates. Reduced unemployment from western districts (Bihor and Satu Mare – less than 3%) is due to the higher foreign investment. These have attenuated, partially, the effects of industry restructuring.

A direct consequence of industrial restructuring process and of unemployment increase is the appearing of a unique phenomenon in Europe – population migration from urban areas to the rural ones and the increase of rural population weight in all the districts of region. At present, there are 3 districts where population is mainly rural (Bistrița-Năsăud – 63.8%, Sălaj – 59.3% and Satu Mare – 53.8%).

Another effect of economic restructuring and of work places diminishing is the emigration process – especially the younger ones where is recorded an important migration. Many places from rural areas (especially Maramureș and Satu-Mare) have a very small weight of younger population, but prosperous through the constructions financed by the money send from abroad. Civil active population of **Centre region** was, at the end of 2005, 1,008.1 thousand persons. In Brașov and Sibiu districts, the weight of occupied population in industry and services was high; these are also the districts with a predominant industrial activity, in contrast against Harghita and Mureș.

Population migration from the last years has been recorded to other activity sectors and immediately after 1990; it recorded a massive outflow to Western Europe, especially to Germany.

Unemployment rate from region recorded in 2005 a percentage level of 7.3. The region, through its complex economic structure, had had an important capital of professional knowledge, especially in technical sector. The diminishing of industrial activity had determinate specialists' migration to other activity sectors or abroad.

Civil occupied population of **Northeast region** is 1,265.16 thousand persons. The highest weight of occupied population is recorded in agriculture, especially in Botoșani and Vaslui districts. The weight of occupied population in industry and services is under national average, Botoșani and Suceava districts recording the smallest occupation level in industry and Vaslui district in services sector. Also, these districts are confronted with an evident small level of industrial and agricultural technology and with a reduced level of population qualification.

Many ageing persons from this region worked temporary or permanent in economic activities in Bucharest, Banat, Transylvania, Western Europe and Israel. In villages from Bucovina, after the departure of young masculine population, it had been recorded an emigration tendency of women; thus in many areas had remained only children and older people. In many areas the construction activity is impressive. The raw material is wood. In this way it has been accentuated the difference between regions' areas from the point of view of general level of development and infrastructure.

The unemployment recorded a higher value (6.8%) than the national ones (5.9%)

In 2005, civil occupied population of **South-east region** was 1,028.2 thousand persons, mainly in services and agriculture, followed by industry. It is remarked high

weight of occupied population in services in Constanța and Galați districts, due to the health resorts seacoasts and due to Constanța, Mangalia and Galați harbours. In contrast, in Vrancea district, over 50% from occupied population was working in agriculture and 62% of district's population lived in rural areas.

The unemployment, with a value of 6.4% (at the end of 2005) is higher than national average (5.9%). The cutting offs from the metallurgic industry (MITTAL GROUP) had determinate Galați district to have the higher unemployment rate, followed by Brăila and Buzău.

The lack of adequate work places, inadequate wages and inappropriate qualification had determinate massive outflow to areas with economic growth, national or international. The most accentuated migration is recorded in Vrancea district, especially due to fragile economic structure, where younger population had left places to work abroad.

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THE APPROACH OF EDUCATION IN THE VIRTUAL SPACE

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Abstract

The main objective of this paper is to analyse some particular aspects on collaborative environment focusing on educational applications. Stating collaborative space, defining its own workspaces and sharing mechanisms become the most important tool in order to perform actors' actions and interactions. Consequently, the mutation produced in educational area is also drawn, concerning: learning procedures flexibility, learning objectives dynamic covering, evolving sensitive curricular as feed-back Portfolio Method is used to customize the different states of evaluation in learning collaborative environment.

Key-words: *Lifelong Learning, Portfolio Method, collaborative space, education*

JEL Classification: I21

1. Collaborative environment

Combining computer networks and telecommunication had inspired a new application class focused on group activities support. Such an application may be used by individuals in order to mediate their interactions in performing collaborative actions. Designers are faced with new challenges: no space borders, teams' activities coordination, provide common view of shared sensitive information for entire team. Because a lot of this requirements are generic to any collaborative activity it's naturally to define basic generic services and building blocks in order to quickly develop specific solution covering a given area.

The main feature of a collaborative aspiration consist in: many players commit a suit of transactions in order to perform some common objectives. In a such approach, each player shares its own experience or information (part of), documents, databases, different computer application and so on. Such partners will exchange data entities and knowledge reaching common and individual objectives. Deploying this approach the implementation of new learning methods are needed. A new dimension – collaborative environment specific – has a large impact on the learning process (methods and methodologies) because of the essential collaborative nature of learning. An entire age face to face meeting was the appropriate way in communication. But sometime this become a strange barrier for acquirements. Technical statement of collaborative environment allows come back to the former definition of communication: not one

way information transfer, but peer to peer knowledge connections, giving up relevant tools for learning, in a dipper fashion.

Reusable service library

One of the most important challenge refers to re-building information systems and integrating them in collaborative environment keeping in use legacy applications. The usual approach is to expose specific aspects as services hosted in a library. Designing this services in a appropriate level of abstraction, OSI architecture low levels compliant it become possible to have different instance for different area, for heterogeneous software platforms, for different type of computers. Because of high level of costs reuse each slight of information, application, structure or hardware/software architecture became essential. Stating, designing and deploying collaborative services in educational area became effusive.

Information management: a service which enable actions on date for decision making, in any field, to be modelled and instantiated in order to process and record collaborative transaction.

Group communication: this service is used for synchronizing distributed member's interactions.

Team Management: service which enables team building, both for structured groups and ad-hoc groups. The main task should be: team structure's statement, the identity and roles for each partner, and actions allow for them to operate, to build the team and team decommissioning.

Process Management: this services operate over enterprise formalized (coded) rules, coming from different departments, being accomplished through repetitive usage and storage. This services provide support for ad-hoc process usage (using informal relationship and connections for usual task performance).

Infrastructure support: this sort of services states a basic level for connectivity and data transport protocols between computers (ensuring the efficiency, interoperability and location transparency in order to control access to critical resources). These are needed in order to have a real access control to the restricted resources, as well as to have an appropriate security level for data exchange.

Sharing information became an essential feature of collaboration. Information is transformed in an explicit knowledge, which allows making decision for team members, having a collaborative objective. This sort of information may be private (owned by an individual) or may be shared. In this way we state the concept of Information Space, which concern stored data containing information. The sort of information contained may be any type, meaning any storage facility for managed data: file names, databases and so on. People work usually with that public data in a private way. Working Information Spaces identification is needed to support group collaborative activity:

- personal Space – the information is owned by a group member, usual solely;
- group Space – the information is owned by the group, all group members share it; the information is available to each of them;

- organization Space – the information is owned by the organization (the reunion of different teams), being available to different groups belonging to the organization;

- project Space – the information is available to each organization involved in that project.

The applications working on data belonging to such spaces allow team members working in a collaborative way. The information used by application (and the resulting information) will be a data combination from different relevant Information Space. This is shown in figure below.

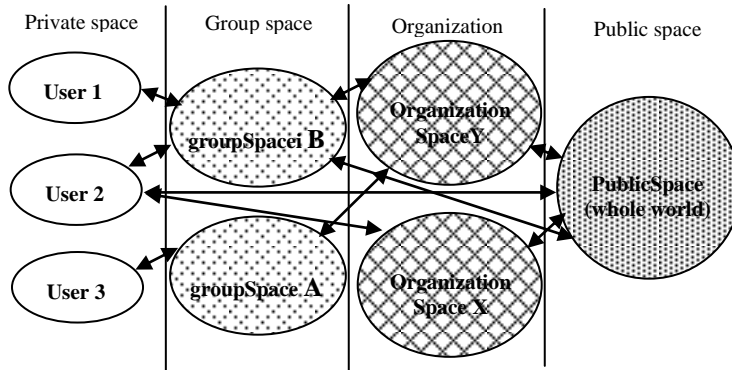


Fig. 1. Information scope and communication template

Information management services enable: members' access to such spaces and information identification conflicts. Typically, this services must be able to: create, delete, modify, search, update, transfer and authenticate. In behalf of these, some validation service for information management should work: information modelling and information mapping.

Sating collaborative space and its referred services open a new way to think educational process. A new environment is born defining working space for each player involved:

The student will have:

- his or her own working private space;
- a shared space – fellows and teacher (optional);
- a shared space – stating only teacher-student relationship;
- a public space – the student publish the activities results here.

The teacher will manage:

- his or her own working private space;
- student shared spaces, defining access rights for each student;
- a shared space – collaboration with other teachers;
- a public space – containing activities result published.

Teachers' community:

- a shared space – with the participation of each member of teachers' group;

- a shared space – between different teachers' groups;
- a public space – containing activities result published.

In the same way, it will be structured shared spaces, common and collaborative, for faculty, university, social community (town, county, etc.) level, having a specific granularity of views.

These spaces allow interaction on all the levels and granularities in order to accomplish the objectives of social community, university, faculty, individual, etc.

Such a structure allows in an operational way defining and redefining politics, strategies and immediate actions having a strong and effective feed-back, assessable, automatically conveyed to each cell of the system.

It's important to define all services, at each granularity level, publishing measured results and pointing out non-standards compliance behaviour, in order to accomplish such a functionality. More, the portability of appraisable results and activities on heterogeneous hardware and software platforms and business environment become really a necessity.

Of course, the heterogeneous environments, the different approach and authentication methods become a challenge for evaluation. Obviously, there are more approaches in evaluation methods. We focus our research on Portfolio Method because of a high level of portability assured.

e-portfolio

A e-portfolio is a container, heterogeneous as format, and containing different types of information concerning subject's activities:

- about digital and non-digital work papers created by subject (or with subject's participation);
- about other activities where the subject was involved;
- the competencies accomplished by subject;
- about subject's bias;
- assessment notes issued by any actor involved, reflections or simply evaluations;
- about the results on all tests' performance;
- contextual information supporting results' interpretation;
- integration in informational context;
- about e-portfolio authoring and intellectual property.

Generally speaking, e-portfolio service and, especially, the needed storage are not the e-portfolio subject.

Based on objectives of use, there are stated different sort of e-Portfolios:

– **Assessment e-Portfolio** – are used to demonstrate achievement to some authority by relating evidences within the e-Portfolio to performance standard defined by the authority. Rubrics are commonly used to score assessment portfolios.

– **Presentation e-Portfolio** – are used to evidence learning or achievement to an audience in a persuasive way. Presentation e-Portfolios often contain instructions about how their contents should be depicted. This type is frequently used to demonstrate professional qualifications.

– **Learning e-Portfolios** – are used to document, guide, and advance learning over time. They often have a prominent reflective component and may be used to promote meta-cognition, to plan learning, or for the integration of diverse learning experiences. Learning e-Portfolio most often is developed in formal curricular context.

– **Personal Development e-Portfolio** – is defined as “a structured and supported process undertaken by an individual to reflect upon their own learning, performances and/or achievement and to plan their personal, educational and career development. This could include a learning e-Portfolio, but goes beyond that.

– **Multiple owners’ e-Portfolios** – are used to allow more than one individual to participate in the development of content and presentation.

– **Working e-Portfolio** – combine elements of all the preceding types. They often include multiple views, each of which may be analogous to an assessment, presentation, learning, or development e-Portfolio.

In an historical view the five degrees of e-Portfolio maturation are defined mainly based on portability degree and the interaction between the main factors involved in creation, certification and simply use of e-Portfolio.

Level 1 – Scrapbook – These portfolios are simply collections of selected assignments completed in a course or awards they received along the way, having different presentation forms, unstructured. These portfolios are not a usual tool and is difficult to assess the real student performances evolution (even for a specific assessor).

Level 2 – Curriculum Vitae – These sort of portfolios are traditional too, containing both student’s personal data and the performances connected to a given curricular area. Curricula are in this case a natural and formal framework which allow performance criteria to be defined and, therefore, a formal and procedural assessment of accomplished tasks. Many concerned parts are manual edited, having a low degree of portability.

Level 3 – The organization able to support such a portfolio needs to have very clear defined curricula requirements or to be compliant with standards defined by an formal authority against which the evaluation should be done. Such a portfolio is build from examples stored in a database. The database access is controlled by creator (student) and refers individuals whose feed-back are summative or formative for published documents, influencing student’s evolution. The portability depends a little bit on platform, but is limited to technical aspects.

Level 4 – This sort of portfolio is similarly with the previous one, inside adding some important features for infrastructure needed: including portals referring performed activities, some tools for mentor (coach, teacher) – student connection, feedback from mentor (coach, teacher) processing, making possible to assign and reassign tasks, re-formulate at all or partial a previous approach. The added value due to the organization is relevant and consists in a strong functional infrastructure (technical, educational, informational, available analysis, access control, networking etc.). The portability is platform independent including some criteria accepted by both organization and social environment.

Level 5 – This type of portfolio adds features in order to authenticate activities and certificate competencies and ability. The organization proofs by itself or by a recognized body the evaluations and reports concerning authenticated activities,

objectives accomplished. These proof a inserted in a way (directly, by a portal, by a database of organization, by references, etc.) into portfolio content. To be effective, the credibility of organization is significant. Here are involved the executed policies of organization, the accurate evaluation of results and the impact due to the organization in social environment. The portability is at the highest level.

Starting with the Level 3 it is possible to reuse information contained in portfolio. At Level 3 the certification authority is limited to the Faculty level where results on courses and practice are accepted and recognized, covering a curricular area. At Level 4 the information is available at University level ensuring the portability over University's space. At Level 5 the portfolio aims to be an integration tool between student, organization and society. Of course, the organization itself needs to have such a portfolio, needs to positively respond to relevant requirements as: a strong infrastructure in order to ensure the informational portability, at faculty, university and society level, to be able to certificate performances against relevant accepted standards (ensuring professional portability) etc.

As example we will use the results developed in Grundtvig PELLEA project, no. 110510-CP-1-2003-1 DK-Grundtvig – G1: Portfolio Evaluation in Lifelong Learning improving Employability for Adult Learner.

Learning process

Portfolio based evaluation method involve two main actors: student in one side and in another teacher (coach, mentor, tutor). The relation between the both sides is based on collaboration and it become obvious that student is guided and assisted by teacher in order to develop competencies.

Portfolio based evaluation methodology means a suite of documents published by student being commented by fellows and teacher in order to assess the progress performed by student in a new competence development.

The development competences process is an interactive complex one. The teacher's role refers: monitoring, guiding and assessing not only the student's activity but the whole learning process. The role of the student essentially consists in reflection and progress.

We refer a model for learning process having five stages:

- 1) enrolment;
- 2) initial Assessment;
- 3) assignment;
- 4) final Assessment;
- 5) presentation.

During learning process arise both legacy educational feature and new features virtual space specific.

Virtual space work as a specific toolkit available to all the actors involved. The semantic side of educational process is human specific. It is a measure of acceptance of educational needs in knowledge based society. The learning process need to fill, the gap between professional requirements and personal competencies and abilities covering a main need both for potential learners and society. We try to define the new

image of teacher based on legacy experience and having a new view about the new context, focused on quick changing needs.

Essay on mentor definition

We remember that the mentor is a rudder, managing learning process. The mentor assess the actual competences, make the assignments in a dynamic way for learner, evaluate in each stage the performances and continues this iterative process until the new required competence is reached. Is someone alike a teacher but more and more. The new image of a teacher as a mentor is stated by European Commission mentioning that e-learning need new models for teacher and formatters highlight the role of mentor to support learners in the age of new technologies. European Commission state: “Traditional academic mission consisting in knowledge transfer from an undoubted expert point of view is inadequate in an open, flexible learning space supported by IT&C. Teachers and tutors need to be focused on cooperative building of knowledge in order to perform eLearning“ (Attwell 2003). The learner is collaborative involved in this role conferring the initial semantics of concept (for instance: Academos)

Services type

As mentor, the teacher plays this role on several distinct directions. The cardinality of role is due to many factors as: personality of learner, previous competencies, organization resources, infrastructure ensured etc. Its mentor’s ability to be addressed as model by learner, as a personal reference model able to offer that that learner attempt (knowledge, behavior, social position, dialog, collaboration). The learner perceives the teacher as a coach, guide, or somebody able to manage portfolio area. More specifically, a mentor need to support the learner to focus on his/her personal aspiration and to well define the objectives by sharing knowledge, competencies, attitudes, abilities needed to reach the final educational target.

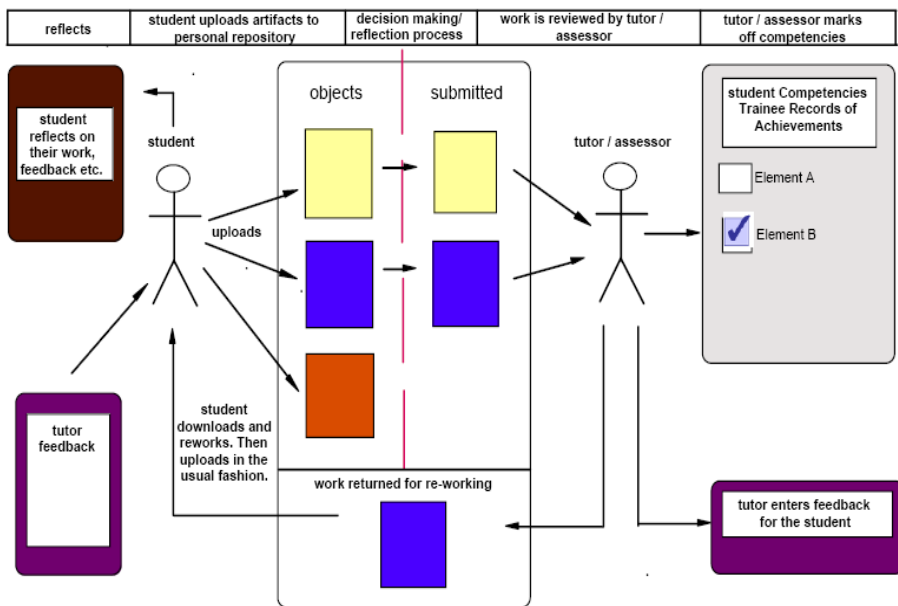
The mentor will support the learners to: define their weakness and strength, stating competencies needed, making a good action plan, a good schedule in order to manage organizational aspect. Over formal and professional communication the emotional support is important.

In order to define the collaboration mechanism it’s important to share the common space in three slices:

- learner area – is owned by learners who have the entire access control. This area is used by learner to do homework, to reflect about, to store the information, to try anything about the subject, being both formal and informal;

- teacher&learner area – owned both by learner and teacher, the learner having a limited access rights. It’s the most important area. Here the communication and collaboration will take place. It’s a formal area; any essay will be assessed and the learner receive a feedback from teacher;

- teacher area – owned by the teacher. This is s the evaluation, monitoring and feedback trace area. It may be used for teacher evaluation and educational process performance assessment too.



Source: David Tosh, University of Edinburgh, “EUCEBS and the e-portfolio”, presentation made at the Seminar on e-portfolio, Regina, Canada, June 2004

Fig. 2. Overview of the learning process

Collaborative approach empower semantics of contextual communication between community’s actors, event the community is a small one, a state or an union. The entities conveyed are not information or knowledge but competencies and abilities. Each actors need to learn from each other. Ensuring a good functionality is not enough. It’s needed to have a flexible and efficient behavior and to perform this requirement it is necessary to learn.

Creating and maintaining a portfolio, especially on higher levels of maturation, allow to evaluate author’s (authors) activity following a many sort of criteria from the educational criteria to employer specific, from quantitative to qualitative, from individual instances to whole activity, functional and behavioral

It’s obvious that the organization’s role grows significant. Learning in virtual environment is enabled if and only if the organization is able to comply with defined, accepted and implemented standards. Standard poverty should lead to a poor social efficiency. The organization’s role concerns flexibility, that means that the student’s objectives math environment objectives, defined occupation fit market requirements, applied curricula meet the demand of occupation. A lot of opportunity arises due to this new approach both in educational field and business environment. The educational role becomes more and more important. Nobody have time enough to have an effective educational choice. Information amount is huge and personal and social needs refer competencies and abilities not separate information or knowledge. Learning is not enough. Efficient learning is a necessity.

Learning process integration

We drew some features for the two main actors: learner and mentor. We drew an evaluation model resulted from contextual dialog between learner and mentor. It is important to understand that this type of dialog is not insulated. Is not insulated because mentor him/herself may be a learner having his/her dialog with another mentor, faculty become a learner for university, university is a learner for environment and so on.

Such an approach takes advantage even if unforeseen regarding learning process integration. Learning about environment needs means understand them and translate these needs in educational process means integration.

A good evaluation process is essentially, because the complexity of student-mentor roles grows exponentially at each level in hierarchical tree. It is more and more difficult to manage functionality but is better to assess the results. Speeding evaluation process on different views about subject's activity and aggregate results may be efficient. Even if is a large amount of data processed is better to shift toward competencies and abilities evaluation rather than information and knowledge. This provide a great flexibility in learning process management being able to states finest granularity for learner's objectives, course's learning objectives, faculty strategies or university politics. It was already stated that the learning basic process running at low level (learner-mentor communication) can't be insulated but it is a part of real environment's life.

In this approach mentor's evaluation is focused on defining a learning strategy for student. In order to certificate the learner's performance it is necessary to have a defined authority doing that. In this way the learning process become more efficient, more objective embedding all levels performances (university, faculty, course, mentor, student). Measuring educational result by amount of resources deployed is not enough. Measuring effects due to education in real life is in turn o valuable reason. That is why contemporary Return of Education (ROE) is a frequently used criteria. ROE allows modelling, deploying and implementing educational policy architecture. We can define levels of such architecture:

- European;
- zonal;
- national;
- local;
- organizational;
- curricula;
- course;
- actors directly involved: learners and mentors.

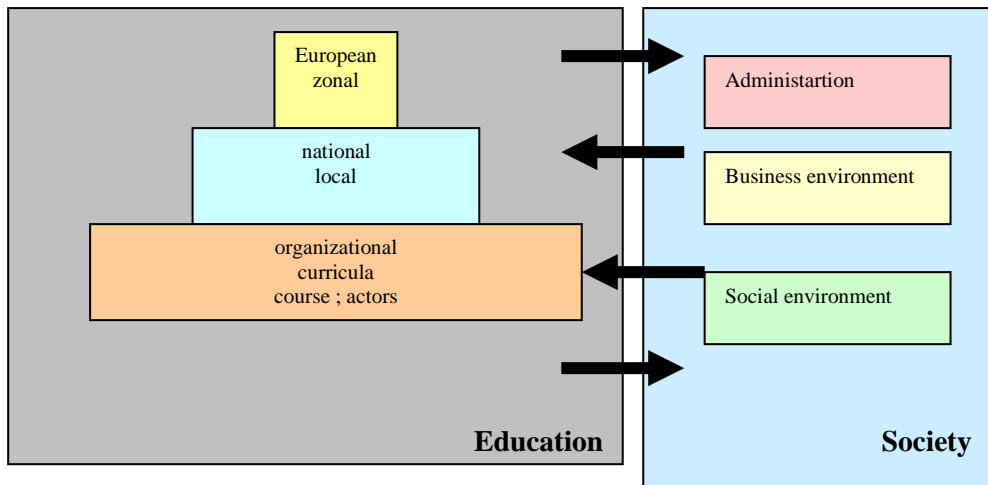


Fig. 3. *Learning process integration*

Now, we have a balance between the two approaches: society to education (top-down approach) and education to society (bottom-up approach). There is a permanent dialog between the two approaches. The society (administrations, social and business environment) asks competencies and education answer result in competent people. This life cycle becomes shorter and shorter.

Moving toward the new education's technologies is a necessity.

This integration itself allow managing effects, allow to effective assess student's competence level. Because of dynamic of technologies, because of the challenge of changes it is necessary to permanently upgrade competencies. That is why Lifelong learning concept is born. Collaborative approach coupled with virtual based learning process seems to be answer to change management.

Conclusion

The society is changed. The new sort of society named sometime Knowledge Based Society already reached a certain level of maturity. This approach regarding learning in new age is an integral part of Knowledge Based Society, as Lisbon declaration states. This main change influences new opportunity arising, determining new and unforeseen needs. It's difficult to perceive the whole society as jointed issues, but as a complex sum of all aggregate events. That is why education can't be disrupted from the new age technologies characterizing the extent and complexity for each component. The identified part of society needs, coupled with new technologies leads defining educational policy architecture.

Therefore, this approach is not (and can't be) an extension for traditional approach. It is different, even it use some experienced results, tools and attached methodologies. Reusing valuable results from past in a new approach, defining new relationships between actors and fills them with new semantics; structuring education in a well built architecture is a chance to face the Knowledge Based Society challenge.

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