

LOCAL DEVELOPMENT IN NORTHEAST REGION THROUGH ACTIVITIES IN ITC DOMAIN

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Abstract:

Economic areas with high technology are key drivers in sustainable regional development, including unemployment and consequently decreasing population migration in the region. Northeast Region is the largest development region of Romania in terms of number of inhabitants and the owned area. On 01/01/2014, according to balance employment, labor resources of the region were numbered 2,428,700, which represent 49.6% of employed population. The registered unemployment rate at 31 August 2014 was 6.5%, with 82 thousand unemployed registered. In terms of participation in the main economic activities, civilian employment in agriculture, forestry and fishing is predominant (40.1%) while in service, civilian employment is 37.1%, while industry and construction is 22.8%. The paper aims to analyze the situation that the potential employment and development opportunities for the Northeast region through activities in the field of ITC domain. Unfortunately, this area was the worst in most indicators, the use of computers and the internet to the turnover of companies and investments in the IT & C and unfortunately in terms of employment population that is under 50%.

Key words: local development, sustainable development, ITC

JEL classification: A1, L86, R1

1.INTRODUCTION

According to data provided by the portal EURES (The European Job Mobility)[12], Northeast Region is the largest development region of Romania in terms of number of inhabitants and the owned area. It consists of the following counties: Bacau, Botosani, Iasi, Neamt, Suceava, Iasi.

According to the latest census, the Northeast region has a total population of 3,302,200 people thus is the most populated region of the country.

On 01/01/2014, according to balance employment, labor resources of the region were numbered 2,428,700, which represent 49.6% of employed population. The registered unemployment rate at 31 August 2014 was 6.5%, with 82 thousand unemployed registered. In terms of participation in the main economic activities, civilian employment in agriculture, forestry and fishing is predominant (40.1%) while in service, civilian employment is 37.1%, while industry and construction is 22.8%.

As indicated in the methodological Employment Balance (BFM 2011) employed population - includes all persons who have an income generating occupation, which habitually exercises in one of the activities of the national economy being embedded in an economic activity or social, under a contract of employment or independently (on their own) in order to get income as salary, payment in kind etc. In view of this and of the population aged 15-64 years of working age, in the first part of the paper is analyzed trends in employment rates which, according to the Romanian Statistical Yearbook (ASR 2012) "represents the ratio between employed population and total population years expressed as percentage aged 15-64 "both in Romania and the development regions according to NUTS 3.

2. DEVELOPMENTS IN THE EMPLOYMENT RATE OF LABOR RESOURCES IN THE 2007-2013 PERIOD

The economic crisis that started in 2009 had negative effects on employment rates and labor, both in the UE28 countries (Zaharia & Bălăcescu, 2013) and at national and regional level (Bălăcescu & Zaharia, 2013). Analyzing the period 2007-2013 there is relatively different developments of this indicator in the eight development regions of Romania (Figure no 1). A common characteristic is the fact that this economic indicator showed a significant setback during the economic crisis began in 2009. The 2010 average employment rate in Romania was 3.8 percentage points lower than in 2007.

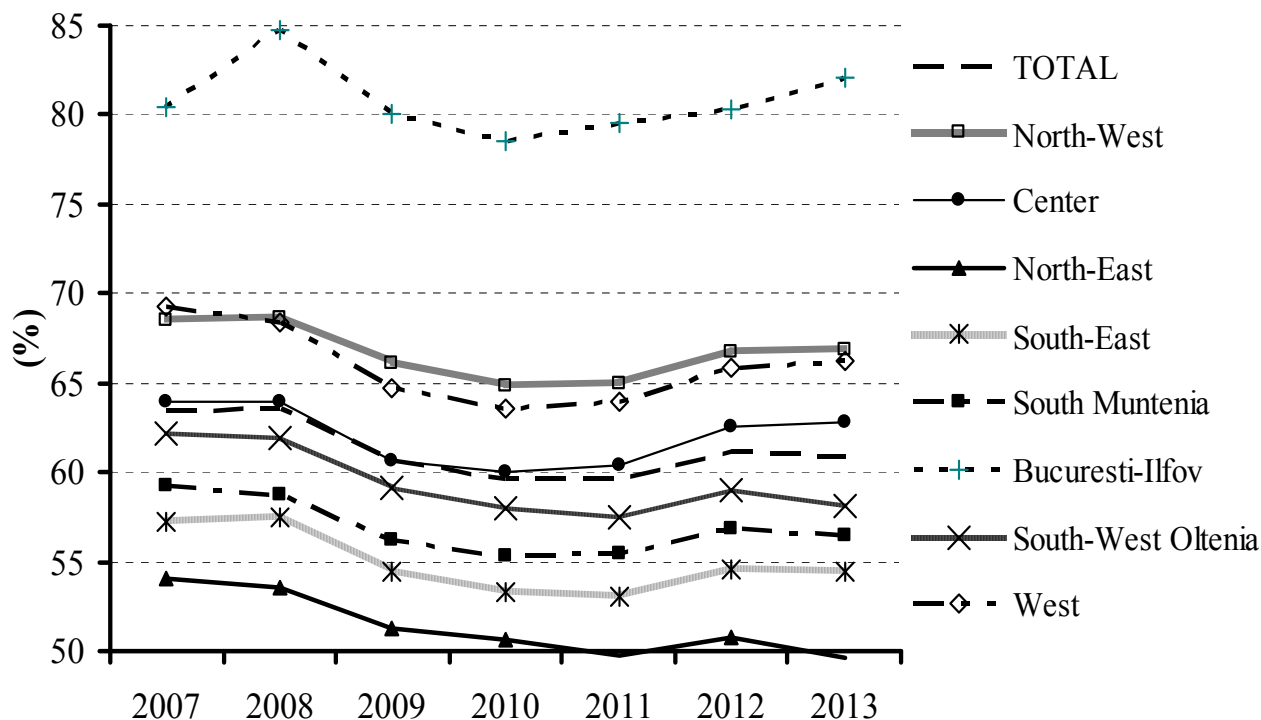


Figure no.1. Evolution of total employment rate of labor resources by region

Source: own processing after <http://statistici.insse.ro/shop/>

In the developing regions in 2013, employment rates have decreased between 5.7 percentage points and 1.9 percentage points in West region and in Ilfov development region. In the North-East region has been a decrease in the employment rate, at total of 3.9 percentage points, a relatively better than in the South-West Oltenia region (a decrease of 4.2 percentage points), South Muntenia and Center, both with reductions in employment rates by 4.0 percentage points.

Since 2011, five of the eight development regions recorded the recovery trends, employment rates recorded increases ranging from 0.1 percentage points in North-West region and 1.0 percentage points in the Bucharest Ilfov. The decline in employment rates continued its work in developing regions South-East (-0.3 percentage points), South-West Oltenia (-0.5 percentage points) and North-East (-0.9 percentage points). Although 2012 was favorable one for employment rates of population growth in all eight development regions of Romania, 2013 brings reductions in employment rates both in Romania (-0.2 percentage points) and at the level of development regions South-East (-0.1 percentage points), South Muntenia (-0.4 percentage points), West (-0.9 percentage points) and North-East (-1.2 percentage points).

Analyzing the evolution of employment rates in the period 2007-2013 shows that, except for the Bucharest-Ilfov development region in all other regions the economic crisis has not passed, the

worst results recorded in South-West Oltenia regions (-4.1 percentage points) and North-East (-4.4 percentage points).

In terms gender development in the employment rate of the labor force during the period analyzed, differences are found both on the percentages recorded values and the impact of the economic crisis on them (Table no. 1). Thus, in 2007 the employment rate of male population was higher than the corresponding females both in Romania and in all eight regions. The biggest difference, 6.3 percentage points was recorded in the West, and the smallest difference of 1.4 percentage points was recorded in North-East region.

Table no 1. Evolution of the employment rate of employment of the male population (M) and female (F) in the 2007-2013 period (%)

	2007		2010		2011		2012		2013	
	M	F	M	F	M	F	M	F	M	F
TOTAL	65.3	61.3	61.2	57.9	60.7	58.4	62.4	59.6	62.6	59.1
North-West	70.6	66.4	65.9	63.8	66.2	63.8	68.3	65.1	69.5	64.1
Center	66.5	61.2	62.9	56.9	62.9	57.7	65.8	59.2	66.6	58.8
North-East	54.7	53.3	51.0	50.2	49.0	50.4	50.4	51.2	49.4	49.7
South-East	60.0	54.2	55.3	51.1	54.7	51.3	55.7	53.3	56.2	52.6
South Muntenia	60.5	57.9	57.0	53.5	56.2	54.5	58.2	55.4	58.0	54.9
Bucuresti-Ilfov	83.0	77.8	79.8	77.3	81.5	77.4	82.9	77.8	83.7	80.6
South-West Oltenia	64.0	60.2	59.6	56.2	57.8	57.1	59.3	58.7	58.9	57.2
West	72.4	66.1	67.3	59.8	67.4	60.4	69.3	62.3	70.5	61.8

Source: <http://statistici.insse.ro/shop/>

Period 2007-2009 and economic crisis brings significant changes thereof. Thus, while in 2007 the national activity rate for the male population was 4 percentage points higher than that of the female population, in 2010 the ratio changes, the activity rate of the female population outrun by 0.7 percentage points on the male population. Significant differences on the impact of the economic crisis on employment rates of male and female population is recorded in the Bucharest Ilfov where the activity rate of the female population surpasses that of the male population by 2.7 percentage points, and North-West region where the activity rate of the population female surpasses that of the male population by 2.1 percentage points. Opposite from the population in the same year, the rates of activity of the male population is continuing overtake those of the female population in the regions Center (0.7 percentage points), South-Muntenia (0.9 percentage points) and the West (1.2 percentage points).

Comparing the values registered by activity rates by sex recorded in 2013 with those recorded in 2007, the conclusions are relatively similar to those observed in the total population. It should be noted that if the male population, besides the Bucharest Ilfov, Center region recorded a value of 0.1 percentage points above the 2007 level. On the other hand, it is shown that the impact of the economic crisis on employment rates of female population was much stronger than the corresponding male population. Thus, while the activity rates of male population, except for the Bucharest-Ilfov and Center, in 2013 recorded values lower than in 2007 by between 1.9 percentage points and 5.3 percentage points West region to region North_East rates activity of the female population recorded in 2013 compared to 2007, except for Bucharest-Ilfov region, are between 1.6 percentage points in South-East region and 4.3 percentage points in the West.

In the North-East region development activity rates of the population had a downward trend with 0.729 percentage points annually overlapping oscillating component with positive values of amplitudes compared to the trend between 0.3 and 0.4 percentage points in 2008 and 2012, and negative values ranging from -1.2 in 2009-2011 and -1.4 percentage points recorded in 2009 and 2011 (figure no 2).

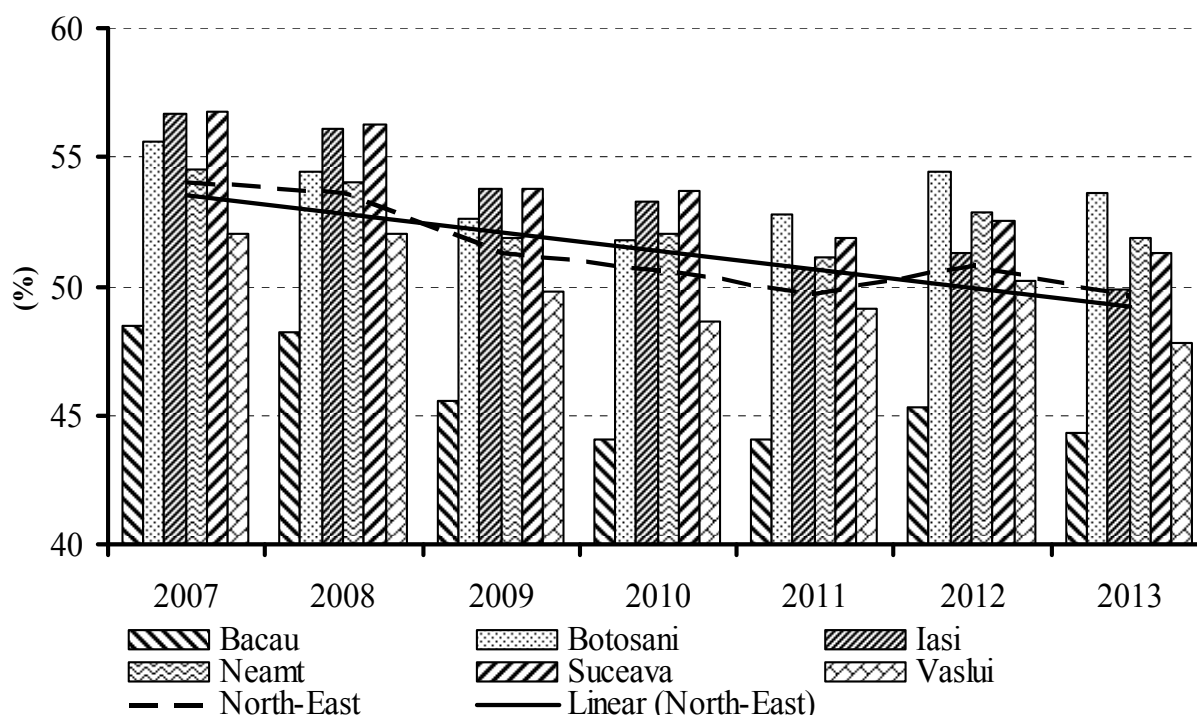


Figure no 2. Evolution of the population activity rates in the counties of North-East development region in the 2007-2013 period.

Source: own processing after <http://statistici.insse.ro/shop/>

The counties with the lowest values of employment rate of the population were Bacau county in which the analyzed period, the employment rate decreased from 48.5% in 2007 to 44.3% in 2013, with a minimum of 41.1% in 2010, and Vaslui county where the employment rate decreased from 52.0% in 2007 to 47.8% in 2013.

In other counties, the employment rate of the population values were found throughout the period, more than the regional average. However, the economic phenomena that occurred in the period under review resulted in change of hierarchy of these counties. Thus, while in 2007 the highest value of the activity rate of 56.8% of the population was registered in Suceava County (2.8 percentage points above the average for the region), in 2013 the highest value of 53.6% was recorded Botosani County (figure no 2).

3. SKILLS AND INCOMPETENCE OF THE POPULATION IN THE USE OF COMPUTERS

Of course, computer user skills training depend on the level of individual material resources, education, social environment that individual comes, belonging to religions etc. Of these, the first part of the paper was analyzed developments in employment rates both in the development regions of Romania and the North-East region counties. Further, the paper, after a brief analysis highlights the Individuals' level of computer skills and Individuals' level of internet skills at national level, presents developments percentage of people that have never used computer development regions in the developing regions of Romania.

Individuals' level of computer skills at national level in the period 2006 - 2014 are shown in Table no 2. In the period 2006-2011 there were significant increases in the percentage share of individuals with high skills in computer use, doubling the values of this indicator. At the same time, increased by 40% weighting individuals with average computer use, while the percentage of those with low level computer use increased by only 15.3%.

Table no 2. Individuals' level of computer skills at national level (%)

Level of computer skills	2006	2007	2009	2011	2012	2014
Low	13	14	17	15	14	18
Medium	10	10	10	14	13	13
High	5	5	9	10	8	7

Source: http://www.insse.ro/cms/files/Web_IDD_BD_ro/index.htm

Since 2012, however, it highlights a regression on individual skills in computer use. Significant regression of the percentage of individuals with high level computer user is not due to decreasing levels of those who in 2011 had the skills but significantly higher increase in the number of individuals with low skills in this area. It is assumed that this is due, on the one hand, some significant changes in the attitude of young people and the quality of their training in terms of declining interest in education and therefore the use of computers, and on the other hand decrease the quality of education in some schools primary and secondary.

Also, analyzing developments weights Individuals' level of internet skills (Table no 3) find similar attitudes.

Table no 3. Individuals' level of internet skills at national level (%)

Level of internet skills	2006	2007	2010	2011	2013
Low	14	16	25	20	29
Medium	7	10	16	17	23
High	2	2	1	7	5

Source: http://www.insse.ro/cms/files/Web_IDD_BD_ro/index.htm

In terms the share of individuals who have high skills in using the Internet, in 2011 there was a real boom. This jump was not caused by increased interest in using computers but was encouraged by the emergence and widespread use of smart phones, considerable decrease their costs and the explosive growth of social networking. These developments have influenced and influence the development of electronic commerce in Romania (Enachescu & Zaharia, 2013).

A Eurostat statistics presented in terms of the percentage of the population that has never used a computer, the developing regions of Romania, shows that nationally their share decreased from 58% in 2008 to 42% in 2012. Although a significant reduction, Romania is still far from countries where the values of this indicator showed significant reductions, such as Belgium (from 23% in 2008 to 12% in 2013), Czech Republic (from 28% in 2008 to 16% in 2013), Hungary (from 31% in 2008 to 23% in 2013), Croatia (from 48% in 2008 to 26% in 2013), France (20% in 2008 to 12% in 2013) and even our neighbor, Bulgaria where the proportion of people who never used computer decreased from 53% in 2008 to 40% in 2013.

On development regions of Romania, the share of population evolution who never used the computer in 2008-2013 is shown in Figure no 4. Of these, as expected, the lowest values of this indicator in Bucharest region Ilfov and are determined by the specificity of this region. In the other seven regions weighted population never used computer evolved relatively grouped with values ranging from 62% in 2007 (North-East regions and South-Muntenia) and 53% (in the West). In 2013 the population weighted never used computer evolved from 51% (South-Muntenia region) and 38% (in the West). It should be stressed that if in 2008 the value difference between the highest and the lowest was 9 percentage points in 2013 it reached 13 percentage points which shows an amplification of differentiation between developing regions respect the share of population has never used computer.

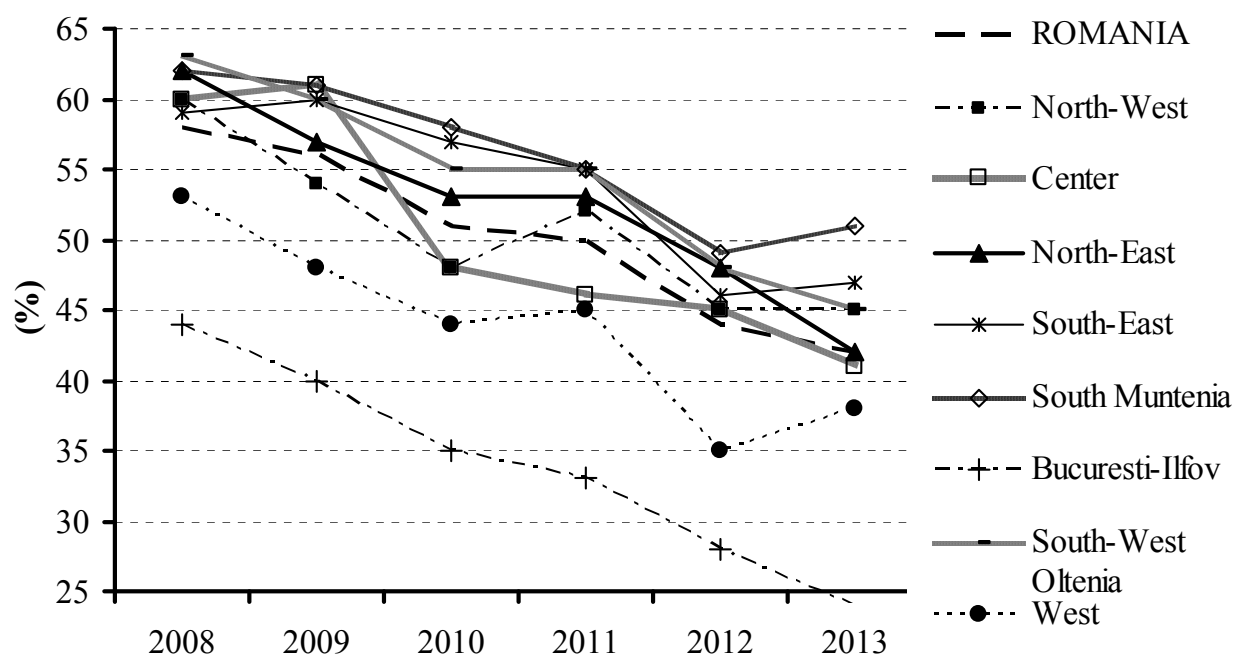


Figure no 3. Evolution of the population ratios of the development region of Romania who have never used the internet

Source: <http://appsso.eurostat.ec.europa.eu/nui/show.do>, Individuals who have never used a computer [isoc_r_cux_i] accessed on 09.03.2015

In Romania, in the period under review, the share of population that never used computer decreased on average by 3.343 percentage points annually. Of course, this decrease was due to the reduction of the proportion of people who never used the computer in the Bucharest Ilfov region where the average annual reduction was 3.943 percentage points.

In terms Northeast region, the share of the population that never used computer decreased from 62% in 2008 to 42% in 2013, the average annual decrease of 3.628 percentage points higher than that recorded at national level, meaning a positive influence (favorable) of the regional indicator values recorded on the national

4. ASPECTS OF THE EVOLUTION OF THE ITC INDUSTRY

ICT industry is an important industry both in the creation of national income and in employment of labor resources with high level of training. The period 2008-2010 was marked by real turbulence. To what extent this had an impact on the turnover of the ICT industry in eight regions of developed and to what extent these developments are in line with the evolution of the employment rate of the population in these regions development?

Except for the Bucharest-Ilfov which concentrates most of the businesses in this industry, the turnover recorded here representing over 73% of the total turnover of the ICT industry in Romania, in the seven regions were recorded both increases and decreases (table no 4).

Table no 4. Turnover of the ITC (million RON)

Development region	2008	2009	2010
ROMANIA (total)	34959	32306	32493
North-West	1798	1674	1731
Center	1323	1411	1520
North-East	1210	1181	1236
South-East	840	869	819
Bucuresti-Ilfov	25548	23330	23865
South Muntenia	1672	1588	1330

South-West Oltenia	593	623	598
West	1975	1630	1394

Source: data series TEMPO, INSSE and http://www.nord-vest.ro/Document_Files/Planul-de-dezvoltare-regionala-2014-2020/00001310/bvd0x_Societatea%20informationala%20-%20noiembrie%202012.pdf

Thus, in developing regions South-West Oltenia and South-East in 2009 slight increases in turnover in the ITC compared to 2008, by 5.0% and 3.4% respectively. In regions of North-East and North-West developments were in the opposite direction from the ITC turnover recorded in 2009 was lower than that recorded in 2008, by 2.4% and 6.9% respectively.

Developments of greater magnitude were recorded in South-Muntenia development regions and West region, in the 2008 – 2010 period, the turnover of the ITC fell dramatically by 20.5% and 29.5% respectively. Finally, during that period, there is a region, the Center region, where the turnover of the ITC, increased by 14.9%.

Comparing these developments, however, with the employment rate shows that the evolution of turnover of the ITC, at least in the period under review, did not affect the employment rates of the working age population in developing regions.

5.CONCLUSIONS

Continuing the analysis of the regions of Romania (Enachescu D.,2013.2014) in terms of development opportunities in active ITC and its implications for employment and labor mobility, the paper tries to present the situation of the North East region in terms of impact of information society that Romania should accede. We presented these data and statistical analysis to highlight the region's potential in the field of ICT development activities that would increase the population employment levels, lower unemployment and thus the migration of the population in the region and support the sustainable development of the region (Teodorescu A,2012).

Unfortunately, this area was the worst in most indicators, the use of computers and the internet to the turnover of companies and investments in the IT & C and unfortunately in terms of employment population that is under 50%.

On the other hand, no significant investments were made in this sector, preferring other economic fields. Personally, I think it would be extremely important development of this area of economic activity in the ITC activities in conditions of adequate information infrastructure, enabling a large number of people engaging in activities consuming less resources and energy. Due to the low cost and well qualified workforce, the region is one of the best investment areas in Europe.

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