STUDY ON THE RELATIONSHIP BETWEEN HIGHER EDUCATION GRADUATES AND THE LABOUR MARKET

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Abstract

Nelson Mandela said that education is the most powerful weapon you can use to change the world. Nothing more relevant in today's Europe, dealing with extremely diverse events, the effects of which are sometimes difficult to discern.

The current economy poses to human resources, seen as factors that ensure that objectives are met, the need for on-going training to deal with different, and sometimes harsh, realities. Additionally, the complexity of socio-economic processes generates the need to be adaptable, creative, innovative, engaged and responsible. These elements can be ensured through a certain level of education, through a tailored and adaptable career path.

Europe's strategy of becoming a smart, sustainable and inclusive economy translates into five goals, one of them focusing on education.

This paper aims to surprise on one hand how the Europe 2020 strategy regarding education has been implemented at national level, and secondly to highlight the challenges Romanian higher education goes through when we consider its finality: employability of graduates.

Keywords*: education, higher education, labour market*

JEL clasification: I23, J44, J62

1. European objectives on education

Modern society is interested in identifying competitive advantages that allow the maintenance of markets and even entering new ones. The literature considers that at present, competitive advantage comes from being different and being able to do something that cannot be easily copied or replicated by others and that has economic value (Pfeffer J, 2009, p.170). We consider that a viable solution in this regard is the provision of educated human resources. Education has become a subject of focus to all: governments, civil society, educational institutions.

Education is one element that makes the difference not only at micro but also macro level, not only at local but also regional, national, European and international levels. Education today is a differentiating factor that can give a nation superiority, appropriate solutions to overcome crisis situations (L Badea, Rogojanu A., 2012).

The importance of education is generated by the known fact that less educated people can only get poorly paid or low prestige jobs, with better regarded positions requiring skills and special training (Hatos A., 2009)

OECD study shows that the employment rate of adults with high school education is 80% and increases to 82% for those with a bachelor's degree, 87% for people with master's and 90% for those with doctorate degrees, respectively. (OECD, Education at a Glance 2016, https://www.oecd.org/education/education-at-a-glance-19991487.htm)

The importance of education is demonstrated through the earnings of people with higher education, as well. Thus, the OECD study shows that, on average, those with master's or doctorate degrees earn twice as much as high school graduates, while bachelor's degree graduates earn almost 48% more. (OECD, Education at a Glance 2016, p.116)

The European Union, through the Maastricht Treaty, title VIII, article 126 paragraph (1), included higher education as area of competence, showing that the community should "contribute to the development of high quality education by

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encouraging cooperation between Member States and, if necessary, by supporting and supplementing their action, while fully respecting Member States' responsibility for the content of teaching and the organization of education systems and their cultural and linguistic diversity ". The consolidated version with regards to the Treaty on the Functioning of the European Union, article 6, also states that the European Union is competent enough to carry out supportive actions, coordinate or supplement the actions of Member States in the following areas: (a) protecting and improving human health; (B) industry; (C) culture; (D) tourism; (E) education, vocational training, youth and sport; (F) civil protection; (G) administrative cooperation. (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12008E/TXT:RO:HTML)

With regards to education, article 165 of the consolidated Treaty states that Union's action aims to: develop the European dimension in education, particularly through the teaching and dissemination of the languages of the Member States; encourage the mobility of students and teachers, by encouraging the academic recognition of qualifications and periods of study; promote cooperation between educational establishments; develop exchanges of information and experience on issues common to the education systems of Member States; encourage the development of youth exchanges and socio-educational and support youth participation in the democratic life in Europe; encourage the development of distance education, developing the European dimension in sport, by promoting fairness and openness in sporting competitions and cooperation between bodies responsible for sports, and by protecting the physical and moral integrity of sportsmen and sportswomen, especially the youngest. (MARIN George eds., 1999, p. 146)

Moreover, the Commission's strategy "Europe 2020" shows that by 2020 about 16 million new jobs will require high qualifications, while the demand for unskilled workers will decline by around 12 million.

The economic and financial crisis that began in 2007 has revealed, in a complex fashion, the necessity of knowing employees' traits: central, structural and ideal values, capable of change, innovative and adaptable and explaining the sources of motivation and behavioral patterns they generate. In this context, improvement of the education system, at national level, but also more examples of positive behavior patterns can contribute to a change in the attitude of Romanian employees. At EU level, education systems remain the national appanage, union offering support to solve common problems, such as: aging population, lack of skilled workers, technological development or global competition. (http://ec.europa.eu/education/policy/strategic-framework_ro).

European cooperation in education and training has consolidated into the "Education and Training 2020" strategy, with the following goals:

- fulfilling the objectives of the lifelong learning program and mobility program;
- improving the quality of efficiency of education and training;
- promoting equity, social cohesion and active citizenship;
- stimulating creativity and innovation, including those of an entrepreneurial nature.

The benchmarks in the field of higher education, as defined by the Education and Training 2020 strategy, aim to ensure that:

- at least 40% of people aged between 30 and 34 will have completed some form of higher education
- at least 20% of university graduates and 6% of those aged between 18 and 34 years who have an initial vocational qualification will have completed part of their studies or training program abroad.

This paper aims to highlight the degree to which the objective was achieved European university graduates both at Union level and in Romania, but also to identify the relationship with the labour market.

Table no.1
Indicator development regarding enrollment in higher education, per country, 2012-2015

Nr. crt.	Country/period	2012	2013	2014	2015	Objective
1.	Lithuania	48.6	51.3	53.3	57.6	48.7
2.	Cyprus	49.9	47.8	52.5	54.5	46
3.	Ireland	51.1	52.6	52.2	52.3	60
4.	Luxembourg	49.6	52.5	52.7	52.3	66
5.	Switzerland	43.8	46.1	49.2	51.4	:
6.	Norway	47.6	48.8	52.1	50.9	:
7.	Sweden	47.9	48.3	49.9	50.2	45
8.	United Kingdom	46.9	47.4	47.7	47.9	:
9.	Denmark	43	43.4	44.9	47.6	40
10.	Iceland	42.8	43.9	46.4	47.1	:
11.	Netherlands	42.2	43.2	44.8	46.3	40
12.	Finland	45.8	45.1	45.3	45.5	42
13.	Estonia	39.5	42.5	43.2	45.3	40
14.	France	43.3	44	43.7	45	50
15.	Poland	39.1	40.5	42.1	43.4	45
16.	Slovenia	39.2	40.1	41	43.4	40
17.	Belgium	43.9	42.7	43.8	42.7	47
18.	Latvia	37.2	40.7	39.9	41.3	34
19.	Spain	41.5	42.3	42.3	40.9	44
20.	Greece	31.2	34.9	37.2	40.4	32
21.	EU (28 countries)	36	37.1	37.9	38.7	40
22.	Austria	26.1	27.1	40	38.7	38
23.	Euro area (19 countries)	35.1	36.1	36.5	37.3	:
24.	Hungary	29.8	32.3	34.1	34.3	30.3
25.	Germany	31.8	32.9	31.4	32.3	42
26.	Bulgaria	26.9	29.4	30.9	32.1	36
27.	Portugal	27.8	30	31.3	31.9	40
28.	Croatia	23.1	25.6	32.2	30.9	35
29.	Czech Republic	25.6	26.7	28.2	30.1	32
30.	Former Yugoslav Republic of Macedonia,	21.7	23.1	24.9	28.6	:
31.	Slovakia	23.7	26.9	26.9	28.4	40
32.	Malta	24.9	26	26.5	27.8	33
33.	Romania	21.7	22.9	25	25.6	26.7
34.	Italy	21.9	22.5	23.9	25.3	26
35.	Turkey	18	19.5	21.5	23.6	:

Source: Eurostat

Higher education is an important topic at regional level, as well, because it can provide graduates with improved competence, which involves innovation in various fields. In this context, European officials appreciate that the potential of European higher education institutions to fulfil their role in society and contribute to Europe's prosperity remains untapped. (European Commission 2011 Supporting growth and jobs - an agenda for the modernization of Europe's higher education systems, http://ec.europa.eu/education/policy/higher-education.ro)

Key priorities for higher education in the European Union strive to increase the number of university graduates, as well as the quality and efficiency of education and training, to promote the mobility of students and teachers, the implementation of mechanisms to ensure the governance and financing of efficient higher education systems. We note the inclusion of qualitative targets that take into account the knowledge triangle, namely the academic environment, research and innovation.

The disparities between member states of the European Union are evident when it comes to achieving the objectives of higher education, as well (Table no.1): thus there are 20 countries that have reached and exceeded the European goal, the others being closer (for Austria) or farther away from achieving it. (Romania, Italy).

2. National traits involving higher education

Strategic vision on education and training in Romania, as defined by the Education and Training in Romania for the 2016 -2020 period strategy (http://www.edu.ro/sites/default/files/_fi%C8%99iere/Minister/2016/strategii/Strategia_VET%2027%2004%202016.pdf) is to give everyone the opportunity to acquire high-level skills relevant to the labour market and to society.

The overall objective of the strategy is to develop a system of education and training adapted to labour market needs and the needs of direct beneficiaries.

The strategic goal set at national level for education obtained through higher education is as follows: 26.7% of people aged 30 -34 years will have completed a form of tertiary education.

The data in Table 1 indicates the growth in the number of people who complete tertiary education from 21% in 2012 to 25.6% in 2015.

Table no.2

The degree of inclusion in various forms of education of the school population

Age groups of school population	Year									
	1990	2000	2007	2008	2009	2010	2011	2012	2013	2014
	UM, %									
Total	63,5	68,9	81,1	85,9	86,5	84,1	80,4	79,6	79,4	73,7
19 - 23 years and over	10,6	32,9	72,5	78,3	76,4	70,1	59,7	55,4	54,5	66,4

Source: INSSE Tempo-online

Regarding the degree of coverage of the school population in some form of education (table 2), an increase from 10.6% in 1990 to 78.3% in 2008, then a 54.5% decrease until 2013 and then an increase up to 66.4% in 2014 can be observed. The decline registered in 2008-2013 could be attributed to the financial and economic crisis that affected much of the population by reducing wage levels but also by decreasing youth interest in education.

To better illustrate the completion of tertiary education by people aged 30/34 years objective, we have created Table no.3.

Table no.3

Evolution of The Number of People Enrolled in Undergraduate Education

Level of education	Age	Year									
		1995	2007	2008	2009	2010	2011	2012	2013	2014	2015
		UM: Number of people									
Total	Total	4703277	4404581	4324992	4176866	4029226	3823515	3734326	3650933	3735552	3642632
	Age 30-34	6077	39110	43024	38423	28326	19350	15808	14192	23918	23004
Undergraduate	Total	336141	907353	891098	775319	673001	539852	464592	433234	411229	410697
	Age 30-34	6077	39110	43024	38423	28326	19350	15808	14192	13803	13425

Source: INSSE Tempo-online

If we look at the absolute number of persons enrolled in undergraduate education (Table no. 3) similar trends are observed, growth up until 2008 followed by decline until 2015.

Table no.4

School population by level of education and area of residence

Level of education	Area of residence	Year									
		1995	2007	2008	2009	2010	2011	2012	2013	2014	2015
		UM: Number of people									
Enrolled studnts - undergraduate	Total	336141	907353	891098	775319	673001	539852	464592	433234	411229	410697
-	Urban	336141	906842	890659	774852	672522	539455	464397	433040	411070	410508
-	Rural	:	511	439	467	479	397	195	194	159	189

Source: INSSE Tempo-online

Analysing the absolute number of students enrolled in undergraduate, depending on their residence, we see an on-going decrease, such that in 2015 the school population at undergraduate level represented only 45% of students enrolled in degree in 2007 - the year with the highest recorded value. By residence, those from urban areas are included in the 45% compared to those from rural areas which recorded a further decline, representing in 2015 only 36% of the value recorded in 2007.

If we consider the number of students based on majors, the data indicates two periods, 2000-2007 which is a period favourable for economic studies, student numbers increasing from 132,332 to 294,417 and 2008-2013, unfavourable for the economic field, with the number of young people turning their attention to this area reaching only 80,360 in 2013, almost equal to the 1995 level.

Table no.5

School population by level of education and subject

Level of training	Type of Property	Subject	Type of Education	Year									
				1990	2007	2008	2009	2010	2011	2012	2013	2014	2015
				UM: Number of people									
Enrolled students – undergraduate	Total	Total	Total	192810	907353	891098	775319	673001	539852	464592	433234	411229	410697
-	-	TECHNICAL (industry, transport and telecommunications, architecture and construction, agriculture, forestry)	Total	120541	178258	188660	168863	160432	152657	139932	134391	:	:
-	-	Industry	Total	96871	122100	128328	111756	108183	107509	98216	95730	:	:

Level of training	Type of Property	Subject	Type of Education	Year									
				1990	2007	2008	2009	2010	2011	2012	2013	2014	2015
				UM: Number of people									
-	-	Transport and telecommunication	Total	2709	5376	6361	5778	5458	4705	4519	3727	:	:
-	-	Architecture and construction	Total	11148	28187	32250	30093	28861	26248	22872	20230	:	:
-	-	Agriculture	Total	7075	14474	13385	11692	10822	11195	11478	12023	:	:
-	-	Forestry	Total	794	4614	4691	3674	3387	3000	2847	2681	:	:
-	-	Medical	Total	20128	41398	47758	50059	54375	54545	55777	56666	:	:
-	-	Economics	Total	20003	294417	281421	223961	170217	114703	92653	80360	:	:
-	-	Law	Total	3975	116538	127399	112621	96148	67698	48974	42595	:	:
-	-	University teaching	Total	26270	265624	235923	210126	182442	141789	119526	111703	:	:
-	Public Property	Total	Total	:	526844	480239	452982	433063	399464	364916	353988	345336	351450
-	-	TECHNICAL (industry, transport and telecommunications, architecture and construction, agriculture, forestry)	Total	:	166773	174432	155428	148608	143218	132667	129414	:	:
-	-	Industry	Total	:	112963	116988	100799	98520	99854	92392	91892	:	:
-	-	Transport and telecommunication	Total	:	5269	6295	5778	5458	4705	4519	3727	:	:
-	-	Architecture and construction	Total	:	26598	30283	28283	27376	25046	21967	19530	:	:
-	-	Agriculture	Total	:	14131	13010	11292	10398	10803	11122	11688	:	:
-	-	Forestry	Total	:	4305	4211	3406	3135	2810	2667	2577	:	:
-	-	Medical	Total	:	37251	42182	44165	47145	47671	48606	50257	:	:
-	-	Economics	Total	:	125795	102405	93505	81240	66878	58360	52924	:	:
-	-	Law	Total	:	22842	23233	22853	25289	23465	21141	20386	:	:
-	-	University teaching	Total	:	165526	130488	129298	123033	110914	97164	94113	:	:
-	Private property	Total	Total	:	380509	410859	322337	239938	140388	99676	79246	65893	59247
-	-	TECHNICAL (industry, transport and telecommunications, architecture and construction, agriculture, forestry)	Total	:	11485	14228	13435	11824	9439	7265	4977	:	:
-	-	Industry	Total	:	9137	11340	10957	9663	7655	5824	3838	:	:
-	-	Transport and telecommunication	Total	:	107	66	:	:	:	:	:	:	:
-	-	Architecture and construction	Total	:	1589	1967	1810	1485	1202	905	700	:	:
-	-	Agriculture	Total	:	343	375	400	424	392	356	335	:	:
-	-	Forestry	Total	:	309	480	268	252	190	180	104	:	:
-	-	Medical	Total	:	4147	5576	5894	7230	6874	7171	6409	:	:
-	-	Economics	Total	:	168622	179016	130456	88977	47825	34293	27436	:	:
-	-	Law	Total	:	93696	104166	89768	70859	44233	27833	22209	:	:
-	-	University teaching	Total	:	100098	105435	80828	59409	30875	22362	17590	:	:

Source: http://statistici.insse.ro

Table no.6

Evolution of the number of students enrolled in economic studies during 2000-2013, by types of property

Types of property	Year													
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	132332	146110	158185	172409	188505	221619	242330	294417	281421	223961	170217	114703	92653	80360
Public Property	71134	83457	92578	101553	109918	118781	126517	125795	102405	93505	81240	66878	58360	52924
Private Property	61198	62653	65607	70856	78587	102838	115813	168622	179016	130456	88977	47825	34293	27436

Source: http://statistici.insse.ro

Given the type of property, the number of students enrolled in economic studies showed a 56% increase in public institutions (2000-2006) and 53% for private institutions. In the following period, 2007-2013, public education has registered a continuous decrease, reaching, in 2013, 74% of the number of students in 2000 and 41.8% compared to 2006 (when it peaked). In the same period, private education saw an increase in 2007 and 2008, with the highest level reached being 179,016, while in 2009-2013 this number declined, falling to 45% in 2013 from the 2000 level.

Table no.7

National economy evolution

CAEN Rev.2 (activities of the national economy - sections)	Legal forms	Year						
		2008	2009	2010	2011	2012	2013	2014
Total	Total	776606	801011	768371	734330	794514	862202	871264
-	Companies	548357	535758	486504	440899	467512	472722	475482
-	Freelancers	221902	259341	276420	288575	322142	384809	391346
-	Other legal forms	6347	5912	5447	4856	4860	4671	4436
G Wholesale and retail trade; repair of motor vehicles and motorcycles	Total	268050	260676	244054	229846	240579	274269	273015
-	Companies	210678	194764	179288	162729	167429	166140	163498
-	Freelancers	54131	63066	62153	64747	70847	105892	107410
-	Other legal forms	3241	2846	2613	2370	2303	2237	2107
I Hotels and restaurants	Total	27068	31239	28751	28194	30027	34907	35064
-	Companies	23386	25868	24134	21989	23276	23473	23535
-	Freelancers	3432	5069	4349	5984	6527	11231	11332
-	Other legal forms	250	302	268	221	224	203	197
K Financial and insurance services	Total	8014	8537	8147	1653	8349	10961	10849
-	Companies	6906	7052	6563	0	6715	6971	6832
-	Freelancers	1014	1416	1512	1653	1569	3928	3959
-	Other legal forms	94	69	72	0	65	62	58

Source: http://statistici.insse.ro

If we look at the economic situation we see that the situation in higher education reflects developments in the economy, thus from 2008 to 2013 the number of companies, employers of graduates of economic studies, drops from 548,357 in 2008 to 440,899 in 2011, recovering slightly in 2014 to reach 475,482 active companies (table no.7).

In the financial and insurance sector the situation is unfavorable, more specifically from 6,906 active companies in 2008 the number decreased to 6,832 in 2014.

The hotels and restaurants sector recorded a fluctuating evolution, the largest decline being in 2011. It should be noted that the choice of undergraduate studies is the result of several factors, both objective and subjective, and that there may be other elements that generate a choice in favor of or against economic studies.

Table no.8
Evolution of the population with higher education, by age

Level of education	Age group	Period					
		2011	2012	2013	2014	2015	1st quarter of 2016
		UM: Number of people					
Total	Total	659426	627209	652984	628682	623910	584562
-	25 - 34 years	176864	181294	192960	179626	181188	180903
-	35 - 49 years	208517	195282	201778	204413	208371	200882
Superior	Total	73387	82065	89221	98340	73952	63779
-	25 - 34 years	32458	39505	44087	50790	38437	36991
-	35 - 49 years	13547	16076	16000	19545	16826	16038

Source: Eurostat

The population with higher education increased in 2011-2014, 63.9% for ages 25-34 years and 69.3% for those aged 35-49. 2015 saw a decrease in the number of people with higher education, a trend that continued in 2016.

Regarding the evolution of those unemployed, we refer only to 2011-2016, as data allowing correlation between level of education and level of unemployment can only be found after 2011.

Table no.9
Relative share of unemployed people with higher education

	2011	2012	2013	2014	2015	2016
	%					
Total	11,12	13,0	13,66	15,64	11,85	10,91
25-34	18,35	21,79	22,84	28,32	21,21	20,44
35-49	6,49	8,23	7,9	9,5	8,07	7,98

Source: Eurostat

Most who are unemployed are university graduates, aged 25-34 years, which could be an indicator of their small chance of being absorbed into the labour market, especially since the greatest need identified by employers is of skilled workers.

Table no. 10
Structure of unemployed people with higher education, by age

Total	2011	2012	2013	2014	2015	2016
	%					
25-34	44,22	48,13	49,41	51,64	51,97	57,99
35-49	18,45	19,58	17,93	19,87	22,75	25,14

Source: Eurostat

It is notable that the structure of unemployed people with higher education is dominated by those aged 25-34, people in this category are highly affected: 1 in 5 are unemployed. The reduced preference for graduates when seeking employment is explained by the development of professional skill shortages identified by employers. Higher education facilitates the development of transversal skills but has problems engendering a positive attitude towards work - autonomy and responsibility in the workplace.

3. Conclusions

Education is crucial for any economy, as a factor of growth and value creation. Education gives people the knowledge, abilities, skills to participate in social and economic life effectively, to further develop existing knowledge in order to function and better integrate in the labour market.

In conclusion, the education system is subjected to simultaneous and contradictory pressures: the labour market's need for skilled workers in specific professions, while European policies highlight the long-term need for training in higher professions and superior specialization. In this context a permanent dialogue between the formal education environment and employers, as well as active people, is necessary. Students must have an active approach to their own professional development.

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