

Skills Management: A Base for Increasing Economic Competitiveness in Romania

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ABSTRACT

The study incorporates an analysis of the performance of higher education system (the Bologna Model) from the perspective of evaluations made by companies. The main objective is to identify the competence areas required from fresh graduates for sustaining the contention of business enterprises and to analyse investments made by companies for developing talents within the framework of pressure generated by the economic crisis. The study take into consideration the partnership between the economic environment and higher education institutions as well as an anticipation of occupation trends for young graduates based on employee forecasts. Research results demonstrate the fact that the education system relies mainly on a transfer of knowledge and not on developing the competencies necessary for enhancing the employment chances of graduates or on their job performance. Only two out of ten employers are satisfied by the competencies demonstrated by graduates, the statistics being similar to the number of employers who collaborate with higher education institutions for providing adequate study programmes. From amongst the companies declaring that they provide continual development programmes, most invest in courses related to communication, team work and client orientation, although they are not satisfied with the graduates' abilities in solving problems, making decisions or in leadership. A weak collaboration between companies and educational institutions generates a lack of rapid response from the educational system to the requirements of the market economy, amplifying the deficiency of competences, especially in fields with continual technological development or in those where new occupations are constantly appearing.

KEYWORDS: *graduates' competence deficiency, economic crisis, competitiveness, training, graduate employment trends*

JEL CLASSIFICATION: *I23, I25, J24, M53, M54, O15*

INTRODUCTION

Over the last few years, investments in research and innovation, associated with continual development of information technology and communication have generated major changes in the world economy structure. The orienting of financial resources and attracting talents towards industries based on advanced technologies have determined unprecedented transformations at the job market level as well, where multinational companies have acted

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as a genuine catalyst in the globalisation process. Research and innovation have proven to be essential factors for performance development in industrial areas based on high technology, significantly influencing occupation trends and human resources development in economically advanced countries (Bogliacino, Piva & Vivarelli, 2011). States that have understood that knowledge is essential for ensuring competitiveness and a status of social welfare (Brooking, 1996) in the new socioeconomic structure forming this millennium, have switched their major investments from fixed assets towards human capital and intelligence growth. The new vision and the changes arisen in economic strategies have reconfigured the role and importance of industries in international classification, easing the arrival and development of new spheres of activity. The approach generated significant changes in the leadership and organisation of activities within corporations as well as the professional and social status of people, with significant effects on education, professional training and the job market (CEDEFOP, 2010a). The new economy, based on knowledge and innovation has contributed to growth of productivity but has triggered multiple debates regarding the importance of continued learning and redefined priorities leading to investments in education and the development of replacement potential in organisations (Vaira, 2004).

1. THE ECONOMIC CRISIS DICTATES KEY PRIORITIES FOR A SOLID DEVELOPMENT

For triggering the economic growth of its member states, the European Commission (2010) proposed to focus on five main objectives in its *Europe 2020* strategy as a general support for development, namely economics, technology, social field, education and research-development,. However, the implementation of the policies was gravely affected by the financial and economic crisis, which led to great efforts being made for increasing the number of available jobs and hire-ability as means of overcoming the impasse (Aceleanu, 2011) at the European Union level. In the 2011 Report, *Innovation Union Competitiveness*, the European Commission clearly indicates that „*The challenge of increasing investments in knowledge remains a key priority even during the severe budgetary constraints in Europe.*”

Despite all the measures taken, the economic crisis amplified the gap between Romania and other developed countries in Europe, fact proven by the ten place descent in global competitiveness ranking (World Economic Forum, 2011). According to the European Commission report recently sent to the Parliament and the European Council (European Commission, 2011), the economic recovery and increase of competitiveness in Romania can be obtained by creating an environment that favours innovation and new economic activities.

Through the National Reform Programme 2011-2013, the Romanian Government makes provisions for an economic growth of 4 - 4,7%, thus recovering the decline suffered during 2009-2010. The envisioned scenario is based on improvement in activities encompassing all economic branches, but industrial sectors with a high potential for export and constructions have been singled out in particular. The National Prognosis Commission Report in March 2012 indicates a visible improvement of macroeconomic indicators of the past year.

**Table 1. The evolution of main macroeconomic indicators
(Percentile modifications as compared to last year, %)**

Indicator	2010	2011
Gross domestic product		
▪ real growth	-1.6	2.5
Of which, gross added value in:		
▪ Industry	4.8	5.0
▪ Agriculture, forestry and fishing	-6.3	11.3
▪ Constructions	-7.3	2.7
▪ Services	-2.3	-0.1

Source: National Prognosis Commission (2012)

Analysis of sectors based on investments made in research-development show that Romania continues to have an economic structure based on low and average level technology areas, with an underdeveloped innovation level and a demand for average knowledge. As compared to other states within the Union, Romania has one of the lowest coefficients in added value for services (Hințea, 2011). A higher added value can be found in industries based on intense use of work force (textile, garment, leather, footwear, timber processing) but also in industries requiring heavy investments per unit of product (for example, cement production). Over the last few years, an increase in coefficients for industries based on high technology has been visible: software and communication equipment, radio and TV transmitters and receivers, wires and isolated cables, etc. Although the coefficients for high and medium level technology services export from the total of export is close to the European average while the export of high and medium level technology is above that of the European average, Romania registers a significant disparity regarding human resources. Indicators of employees engaged in activities requiring a high level of knowledge from the total of working population is 6.16% in Romania as compared to 13.03% in EU 27.

1.1 Education must be aligned to the requirements of the new economy based on knowledge

The quality and contents of education represent the main factors for progress in the business environment since they can generate the forecasted changes in economy and the job market for the next decade (Ciucă & Lincaru, 2010). Estimates carried out in the study entitled *Skills supply and demand in Europe, Medium – Term Forecast up to 2020* (CEDEFFOP, 2010 b) indicate a tendency of growth of population above the age of 15 with higher studies from 21.2% in 2010 to 26.6%, in EU 27, together with a significant decrease of less qualified workforce. Changes will reflect similarly in Romania as well. The job market will increase slightly in the average qualified workforce segment and more significantly on staff with higher studies. Textile, garment and footwear, timber processing and paper manufacturing as well as electrical equipment manufacturing industries will meet a decline in the workforce demand whereas the distribution sector shall see a significant increase.

Table 2. Employment trends in main sectors of activity (Thousand people)

Sectors of activity	EU 27		Romania	
	Levels 2010	Changes 2010-2020	Levels 2010	Changes 2010-2020
Primary and utility sector	14,704	-2,782	2,911	-703
Processing industry	36,526	-2,188	1,628	-208
Constructions	15,425	275	456	136
Distribution and transport	58,773	3,406	1,944	608
Business and other services	48,773	7,260	583	124
Non-marketing services	53,056	1,253	1,378	29

Source: Cedefop (2010b)

According to the same source, during the time frame 2010-2020, the most prominent increase of employment at the EU 27 level shall be in the technical branch (1.2% per annum). In Romania, the number of employment opportunities shall decrease in the primary and utility sector as well as in the processing industry. It shall increase in constructions, business and services but under the level of evolution recorded during 2000-2010 (INSSE, 2011b).

The economic crises during the past few years and the evolution trends recorded on the job market have obviously influenced higher education in Romania (Vasile, Prelipcean and Șandru, 2010). Following the maximum level of increase reached in the 2007/2008 academic year, the number of students began to drop. In 2009/2010, the gross rate of participation in higher education reached 45% as compared to 51.7% during the previous year. The graduation rate for higher education has seen a similar evolution. In the academic year of 2009/2010, Romania had a graduation rate for tertiary education of 16.8% as compared to an average of 32.3% recorded in EU 27. Alternatively, the indicator regarding the increase of graduates in science and technology was surpassed. If in 1998 Romania had 4.8 graduates per every thousand citizens aged between 20 and 29 in mathematics, science and technology fields as compared to 8.8 at EU 27 level, in the year 2009/2010 it became the country with the highest numbers (20 graduates), being outranked only by France (20.2). During the fall of the year 2010, throughout all the universities in Romania there were 1,655 fresh graduates in Electronics, 1,356 fresh graduates in Electrical Engineering, 3,731 fresh graduates in Vehicle Engineering and 3,102 fresh graduates in Computer Sciences.

However, occasional studies (Leon, 2011) indicate deficiencies of the present education system regarding the transfer of competence among educational programmes that lead to an ineffective response from graduates to the requirements of knowledge economy, determining an increase in business' vulnerability during this time of economic and financial crisis.

2. THE SKILLS NEEDED FOR HIGHER EDUCATION GRADUATES TO SUPPORT THE COMPETITIVENESS OF ROMANIAN ECONOMY

The study regarding "*Demands of Economic agents regarding competences of fresh graduates and the discrepancies between supply and demand on the job market*" within the SOPHRD project "*Economic Scientific Research, a basis for human welfare and development in the European context*" attempts to capture the extent to which training

within the higher education system meets present demands and development trends of the national economy though an analysis of professional competences subject to evaluation by employers in Romania.

The general objectives of the research:

- (a) Evaluating the coverage of essential competences common in several occupations for establishing a correspondence between competences provided by higher education institutions through study programmes and demands from economic agents.
- (b) Determining the degree of interest shown by business enterprises in augmenting a lack of or insufficient development of certain key competences for fresh graduates with a higher education diploma employed during the economic crisis through special training programmes.
- (c) Determining the degree of interest shown by business enterprises in collaborating with higher education institutions for ensuring training programmes that meet the current demands of the job market.
- (d) Evaluating the degree of incorporation of graduates (Bologna class) on the job market during the economic crisis.
- (e) Forecasts of main employment trends for fresh graduates.

2.1 Research Methodology

Quantitative means of research were used for achieving the appointed objectives, which allowed for results under the form of statistics through the usage of the specific technique of surveys based on structured questionnaires.

A set of competences common to several occupations (Dune, Bennett & Carré, 1997) was designed. The general framework that ensures the training of graduates for any occupation was taken into consideration for defining the main competences, based on technical, social and personal abilities appreciated and required by employers (NATB, 2005; NATB, 2008; European Commission, 2006; European Commission, 2008; European Commission, 2009; ACPART, 2009; Amara, Baumann, Pelt, Guillaume & Ionescu, 2010).

The identification of the degree of coverage for key competences required by employers was investigated in the case of fresh graduates from colleges grouped into specialisations as contained in the Romanian Statistical Yearbook (INSSE, 2011a).

The sampling was based on the structure of fields of activity in the national economy framework as recorded by the National Institute of Statistics. Stratified sampling was used to achieve a reliable representation of different structures from amongst active social economic operators registered in Romania. The sampling selection was based on Pro Business Romania electronic catalogue, 10th edition, issued by the Romanian Chamber of Commerce and Industry. The database employed contains over 28,500 Romanian companies from all fields of activity. The sampling representativeness was ensured through random selection of 3,500 economic agents in Romania, congruent to fields of activity taken into consideration. The survey took place during March-April 2011.

A questionnaire was elaborated for the proper gathering of data within the quantitative research.

It contained one set of questions for identifying the business enterprise and seven for the actual content: five closed questions and one half-open question (the respondent had the freedom of selecting the desired item, the answers being multiple-choice). Two types of scales were used: Four steps scale of assessment (1= Very good, 2= Good, 3= Adequate, 4= Inadequate); Dichotomous scale of assessment: Yes; No.

The questionnaire was sent digitally by e-mail and was accompanied with instructions for completion. The questionnaire was self-administered, thus being completed independently by each subject.

94 companies answered the questions. The response rate represents 2.68% of the total number of social economic operators who were sent e-mails. 25 companies sent only comments regarding the reason why they refused to participate in the survey, some of whom brought relevant observations to the study. Competence evaluations for fresh graduates from all categories of colleges were included in the questionnaire, this ensured coverage over most of the specializing groups mentioned in the National Institute of Statistics' Yearbook.

2.2 Research results

Through the first question in the questionnaire (Q1) „Indicate the level of coverage in key competences demanded by the company for fresh graduates you have hired” business representatives were asked to evaluate graduates employed during the past few years on a scale from 1 to 4, based on a set of 13 competences, identically formulated for all categories of higher education specialisations taken into account:

- (a) Familiarity with the field of activity the graduate trained for in college;
- (b) Familiarity with the fundamental theory regarding the graduate's specialisation;
- (c) The capability of practically applying theoretical knowledge accumulated during college;
- (d) Basic practical abilities regarding the graduate's field of study;
- (e) Digital competence (using Communication and Information Technology for solving problems);
- (f) Aptitude for Leadership.
- (g) Organising ability at the workplace/during activities/production processes;
- (h) Independent acquisition and procession of data;
- (i) Decision making.
- (j) Solving problems at the workplace;
- (k) Teamwork;
- (l) Communication;
- (m) Client oriented work.

The general analysis of the evaluation made by the employer regarding the extent of the coverage of competences ensured by the formal intermediate education system for all fields of higher education specialisations indicated the fact that 20.30% of companies are satisfied with the knowledge, abilities and behaviour/attitude of fresh graduates in fulfilling their work responsibilities. 31.32% of the respondents conferred the qualification „Good” for all 13 components. Nearly 27% of the respondents considered the fresh graduates with higher education they had employed within the past few years as having competences elaborated in the questionnaire only at the „Adequate” level whereas 15.74% declared themselves dissatisfied („Inadequate”).

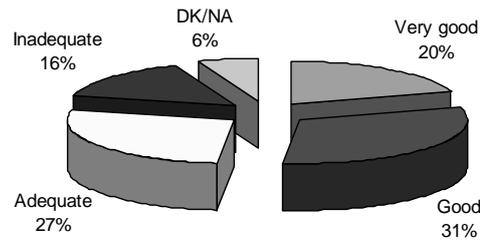


Figure 1. Degree of satisfaction within companies regarding the competence of employed fresh graduates

Source: authors

Note: The qualifications amount to answers regarding the competences of fresh graduates from all higher education fields of study.

Results recorded on each area of specialisation indicate that graduates included in the subcategory „Other specialisations than those included in the questionnaire” (a category where the respondents indicated: Public order and safety; Navigation and public order; Fire-fighters; Construction installations - Fire-fighters; Hydrotechnics - Faculty of military electronics and computing systems, Mechatronics and Weaponry Integrated Systems, Military and Intelligence Sciences, Economic Engineering; Tourism) obtained the highest number of responses for the qualification „Very good” (52.31%) while graduates of colleges with an agricultural profile had the least number of responses (4.61% employers).

Table 3. The „Very Good” qualification given for each college profile (Percentile response %)

The profile of the department graduated by the young employee	The „Very Good” qualification, conferred for overall competences
Other specialisations	52.31
Political and Administrative Sciences	31.62
Medicine and Pharmaceutics	21.37
Computer Sciences/Transportation and Telecommunication	19.44
Juridical Sciences	19.04
Engineering-Construction and Architecture	16.17
Economic Sciences	14.28
Technical	12.09
Academic –Pedagogical	12.09
Agricultural Sciences	4.61

Source: authors

Note: Answers from companies concerning all 13 competences, for each college profile graduated by young employees

Employers from Constructions and those from Production and supply of Electrical and Thermal Energy, Gas, Hot water and Air conditioning didn't confer the assessment „Very Good” or „Good”. There is only one field of activity – Information and Telecommunications – where employers are satisfied first of all with the competences ensured by colleges in the specific field of activity as well as with graduates of other specialisations. In Public Administration, for example, 70.33% of employers confer the assessment labelled „Very Good” to young employees who have graduated Other

Specialisations and only 7.7% to those who have graduated from Political and Administrative Sciences. Commerce employers conferred the maximum qualification to students having graduated Political and Administrative Sciences in a proportion of 46.15% and only 16.63 to those from the company's profiled activity (graduates of Economic Sciences). The same situation can be found in the processing Industry, where 46.15% of respondents conferred the „Very Good” assessment to graduates from Juridical Sciences and only 15.80% to those from technical specialisations. The given answers indicate the fact that employers aren't satisfied with the competences required strictly by the base job, which are part of the front line for the business.

An analysis of the „Very good” assessment for each separate competence offers a view of the means in which higher education fulfils its obligations arisen from basic objectives in education and forming. A classification of those 13 competences according to the „Very good” assessment attributed by the respondent's ranks „Basic practical abilities regarding the graduate's field of study” on the seventh position whereas „The capability of practically applying theoretical knowledge accumulated during college” was ranked on the eleventh position. The first positions in the ranks made by employers situates competences that are not part of the specialising domain of colleges but are rather part of a set of abilities transferable from one level of education to the next (primary and secondary school). The average “Very good” assessment conferred to each category of competence indicates the fact that many employers (35.67%) from all fields of activity appreciate computer skills (using Communication and Information Technology for solving problems), Teamwork (33.06%) and communication (30.10%). In exchange, only 13.27% of employers are satisfied by the capacity of fresh graduates in applying theoretical knowledge accumulated during the years of college. The statistical weight of those extremely satisfied with the graduates' capacity in decision making is of 10.24%, whilst only 6.55% of employers confer the assessment labelled “Very good” for leadership capabilities.

Table 4. The „Very Good” assessment conferred for each competence (Percentile response %)

Competences	The “Very Good” qualification
Digital competence (using IT&C for solving problems)	35.67
Teamwork	33.06
Communication	30.10
Familiarity with the field of activity the graduate trained for in college	26.47
Client oriented work	23.97
Solving problems at the workplace	18.88
Familiarity with the fundamental theory regarding the graduate's specialisation	17.78
Independent acquisition and procession of data	16.96
Basic practical abilities regarding the graduate's field of study	15.78
Organising ability at the workplace/during activities/production processes	14.11
The capability of practically applying theoretical knowledge accumulated during college	13.27
Decision making	10.24
Aptitude for Leadership	6.55

Source: authors

Note: The „Very Good” assessment as conferred for each competence refers to all categories of higher education specialisations.

Business enterprises are relatively satisfied by the knowledge accumulated in the field of activity students trained for during college but the level of appreciation drops significantly when the graduate demonstrates in practice the training accumulated during the years of study. Only 18 employers out of every 100 are extremely satisfied by the fundamental theoretic knowledge in the graduate's specialisation and when it comes down to practically applying theoretic knowledge, only 13 employers out of a hundred offer the „Very Good” assessment.

In order to efficiently establish the efficiency of investments in improving the performance of fresh graduates at their workplace, answers for question 1 (evaluations made by employers on the 13 competences) were correlated to answers regarding the type of training programme offered by companies to these graduates on each competence taken into account. The results recorded for the second question in the questionnaire (Q2) „Check those competences you were forced to ensure training programmes for in order to cover deficiencies found in the activity of young employees from amongst the graduates” indicates that the highest number of companies that offered training were those in the commercial department. Banking institutions were situated on the second position whereas the third position is occupied by companies from the Other service activities, a branch which encompasses a significantly large number of companies with accounting and financial audit activities, consulting in fiscal related sectors, business consulting, management consulting or support services for business enterprises in the present study.

The most frequent courses where employers dedicated their investments are those regarding Communication (13.5%), Client oriented work (11.65%) and Team work (10.02%). An arguable preoccupation, if we compare the degree in which the respective competences were appreciated: one third of employers (33.06%) conferred the „Very Good” assessment for team work competences, 30.01% for communication and 23.97% for the capacity of graduates in orienting their work towards the client. The percentages are above the general average recorded for „Very Good” qualification given to all competences. The least viewed programmes were those assigned to ensuring the fundamental theoretical knowledge in the graduate's field of specialisation, aspect that suggests that faculties adequately ensure transfer of knowledge towards the student.

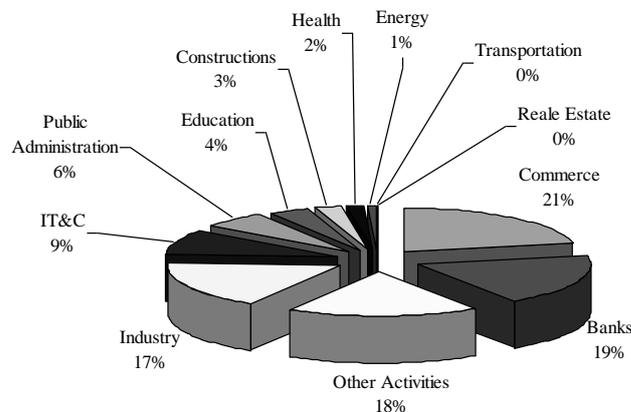


Figure 2. The importance of professional training offered by employers on fields of activity

Source: authors

Note: The training offered by companies only targets the 13 types of competences for covering the deficiencies ascertained in the activity of employment of fresh graduates.

Proof of the fact that companies are preoccupied with developing the efficiency and productivity of employees lies in the large number of answers regarding the supply of courses that allow people to better organise themselves at the workplace/during activities/production processes (9.56%), independently solve problems they are confronted with during their present activity (9.56%), applying theoretical knowledge amassed during college (8.86%). The relatively large number of responses indicates the fact that higher education has failed to improve the field work know-how of students which would allow for the necessary connection between theory (transfer of knowledge) and practice (working ability in the specialisation).

Results obtained during the first questions were correlated to answers provided to the question regarding the collaboration of business enterprises with higher education institutions in order to see the extent to which economic agents augment measures for overcoming the economic and financial crisis. Except for companies in three fields of activity, Education, Construction and Real Estate Transactions that did not collaborate with any higher education institution for ensuring adequate study programmes corresponding to demands, all other business enterprises indicated certain faculties they had established various partnerships with.

More than a quarter of the companies in the Industry sector, similarly in public Administration (25.64%) responded affirmatively to the question (Q3) „Are you collaborating with any higher educational institution in this training field in order to ensure study programmes that adequately suite your needs?”. As expected, industrial business enterprises collaborated with technical universities (50% of total responses). Despite this fact, representatives from industrial business enterprises stated that they were forced to offer additional training programmes (17.48%) in order to improve competences graduates acquire within the higher education system.

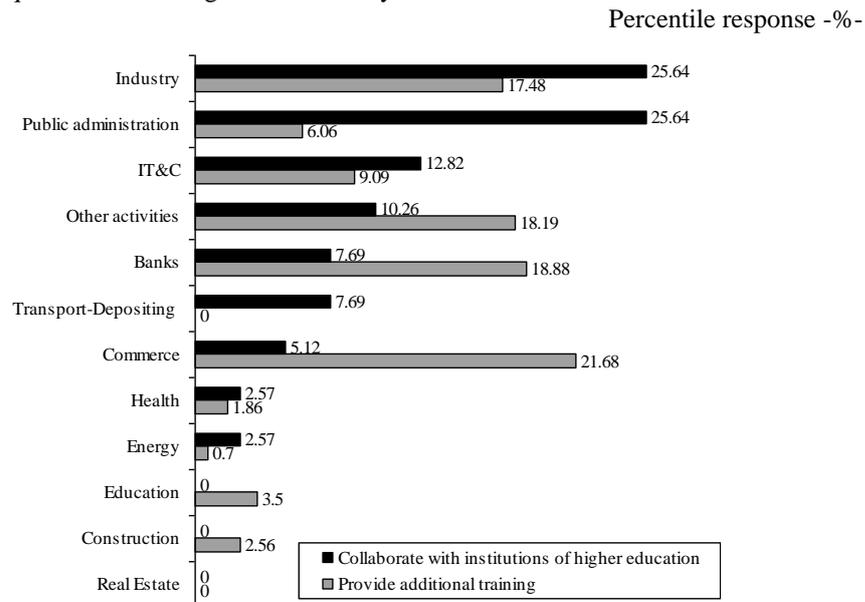


Figure 3. The importance of collaboration between companies and higher education institutions, by fields of activity

Source: authors

In the Financial - Banking field of activity, 7.69% of answers indicate the existence of collaboration with universities for developing educational programmes suiting demands. The same weight is seen in the case of companies in the Transport-Depositing branch. The difference lies in the fact that bankers assign extra funds for continual training programmes whereas employers in the logistic sector do not allot training programmes for improving competences among young employees.

As an alternative, Commercial companies prefer to invest directly in programmes for training new employees, only 5.12% being preoccupied with collaborating with the academic community for developing competence of students from the Faculty of Computer and Economic Sciences.

The interest in collaborating with the academia is even lower in the case of companies in the Health and Energy fields of activity, where 2.57% positive answers were registered for each sector. Employers in the Health sector indicated faculties of Medicine whereas those in the Energy field mentioned technical profile faculties, the collaboration with the academic community being rounded in small proportions with investments in training for improvement of competences of young employees.

The flexibility and dynamics of graduates from the first Bologna type courses on the job market were measured through three types of questions in the questionnaire: (Q4) „Can you recruit the required number of fresh graduates specialised in your field of activity?"; (Q5) „How many people from amongst graduates in this field of activity did you employ during the past year?"; (Q6) „How many people from amongst those who have graduated a faculty with this profile do you intend to employ this year?" A comparative analysis of the given responses illustrates a few relevant aspects pertaining to the evolutionary trends of the job and education market.

- (a) Although the number of graduates has increased significantly for some specialisations, employers encounter difficulties when recruiting young candidates.
- (b) Employers who have not been collaborating with the academia for training students have encountered more problems when recruiting young candidates.
- (c) Employers have had to ensure additional training for improvement of necessary competences at the workplace even in the case of those who have collaborated with universities for adapting higher education programmes to the level of specific demands of the economy.

Answers offered by employers to question (Q4) „Can you recruit the required number of fresh graduates specialised in your field of activity?" indicate that graduates from economics and juridical faculties are still easy to find on the job market. An explanation might be attributed to the high unemployment rate amongst this category of graduates, 22% (based on the study „Recent higher education graduates and their integration on the job market", coordinated by the Executive Unit of the National Adult Training Board, an advisory body for the Ministry of Education), but also to the increasing number of graduates. In 2009, this number doubled as compared to the year 2007. The situation is similar in the case of graduates of technical faculties. 20% of the total responses to question number 4 corroborate the fact that employers find enough graduates with technical studies. On the other hand, discussions held with employers reveal the fact that candidates with experience in the field are preferred, factor that acts in the detriment of young graduates interested in occupying a job.

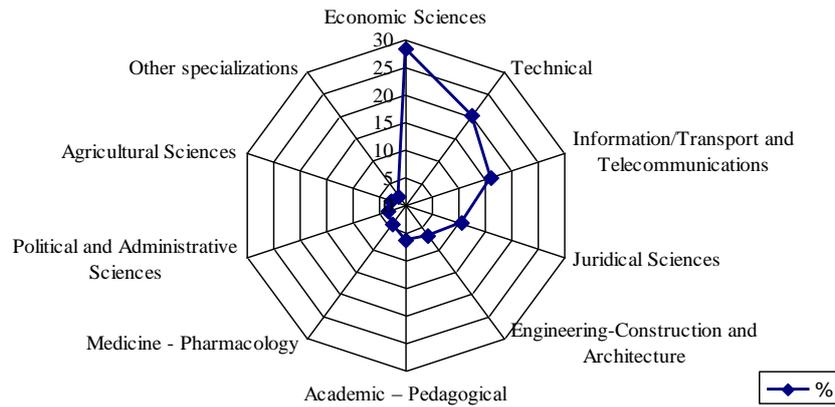


Figure 4. The degree of flexibility for the supply of fresh graduates on the job market

Source: authors

Note: Responses given by employers to the question (Q4) „Can you recruit the required number of fresh graduates specialised in your field of activity?” refers to the job market flexibility on graduates’ specialisations.

The figures forecasted by employers to question (Q6) „How many people from amongst those who have graduated one of the specialisations cited in this questionnaire do you intend to employ this year?” places graduates of technical profile faculties in the category of those who stand a higher chance of finding a job in the years to come. However, on the whole, business forecasts indicate a decreasing trend of recruitments as compared to 2010. Graduates from Political and Administrative Sciences, segment where demands have been completely reduced for the year 2011, will be the most affected. For the first time in a long succession of years when graduates from Computer Sciences/Transportation and Telecommunication specialisations were favoured on the job market in the job offers as well as remuneration frameworks, employer forecasts predict a decrease of over 60% in demands. Graduates from Academic–Pedagogical, Juridical Sciences and Economic profiles as well as Engineering–Construction and Architecture specialisations will be affected.

Table 5. Employment forecasts for fresh graduates

Higher education specialisations	No. of employments in 2010	Estimated no. of employments 2011	Employment trends compared to 2010 (%)
Economic Sciences	550	352	- 36
Other specialisations	453	441	- 2.65
Computer Sciences /Transportation and Telecommunication	452	178	- 60.62
Medicine and Pharmaceutics	235	327	39.15
Technical	117	125	6.84
Juridical Sciences	44	26	- 40.91
Engineering-Construction and Architecture	38	24	- 36.84
Academic –Pedagogical	34	18	- 47.06
Political and Administrative Sciences	10	0	- 100
Agricultural Sciences	7	10	42.86

Source: authors

Logical deductions indicate that employment trends in reference to graduates with economic studies maintain their similarity pattern known during the past few years. They continue to represent a category with the most job opportunities on the market although the demand has met with a significant contraction. However, graduates of Juridical Sciences move away from the pattern. In their case, the decrease is significant as compared to the year before (-36%). This phenomenon is also taking place with graduates from Computer Sciences / Transportation and Telecommunication specialisations but with a heavier weigh than is the case for Law graduates, which indicate a major contraction of future job market demands in this field of activity.

Growth trends for recruitment of graduates of Medicine and Pharmaceuticals are remarkable (approximately 40% higher than the last year). Although the number of graduates from Polytechnic educational institutes is slowly rising, which denotes that the segment of specialists with technical training are trying to earn back the grounds lost during the economic transformation process of the transitional years, the number of employment opportunities in the processing industry are forecasted to decrease by 2.83% in 2011.

Massive reductions anticipated by employers regarding recruitment of graduates from Academic –Pedagogical and Political and Administrative Sciences find an explanation in the restructuring programmes of the administrative system in Romania but can also be correlated to a demographic decrease, that is, of the scholar population.

On the whole, responses from employers indicate a decrease in recruitment among fresh graduates in most economic sectors.

CONCLUSIONS

The first observation to be asserted before drawing conclusions based on data derived from the survey is connected to the lack of interest from companies in participating in this study although they do not have access to objective information regarding the job market since the authorised educational and workforce occupation institutions do not conduct systematic research studies.

The conclusions drawn from the present study indicate that only two out of ten employers are satisfied by the competence skills of people who have graduated a higher education institution in the past few years, about as many as those who collaborate with higher education institutions for ensuring study programmes that meet the requirements of the market economy.

Results gathered demonstrate the fact that the education system continues to be based on training of knowledge and not of competence required by students to raise their chances of occupying a job. In the academic world, learning has been decontextualized, graduates leave the educational system with a baggage of declarative knowledge (what is known about something) while employers seek procedural knowledge from them (the know-how) which is why they insist upon problem solving, team work, making decisions or on the ability to organise one's activities at the workplace. A weak collaboration between companies and education institutions generates a lack of rapid response from the educational system to the demands of the job market, amplifying the competence deficiency, especially in the continuously developing sectors or in those where new occupations are constantly appearing.

Based on the economic, technological and computing evolution during the last few decades, a short-lived life span for knowledge and competence can be distinguished, fact that leads

to a permanent need for learning. The study indicates that approximately five of ten employers offer training programmes for enhancing or developing the professional competences of graduates, although the investment in education can maintain or increase the advantage of competitiveness, more so in a time of economic and financial crisis. This explains why employers prefer to recruit specialists with experience and not fresh graduates. The study indicates that the number of employment opportunities forecasted for 2011 amongst fresh graduates is under the one recorded in 2010 in most economic sectors. Of the 12 economic sectors surveyed, only employers in Health, Constructions, Electrical and thermal energy, gas and water have announced an increase in recruitments of fresh graduates.

The data based on the response of employers presented in this study indicate the necessity of anticipating the demand for knowledge and competence as well as a correlation between skills acquired during formal education and the economical and occupational dynamics associated with new technologies and computing systems. The results obtained by companies, productivity and competitiveness are, after all, the expression of importance awarded to education.

ACKNOWLEDGMENTS

The study presents some research results conducted within the project SOPHRD/89/1.5/S/62988 „Scientific research economic, welfare and support human development in a European context”, National Institute for Economic Research „Costin C. Kirițescu” within the Romanian Academy.

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