
LABOUR FORCE PERCEPTIONS ABOUT THE RELATIONSHIP BETWEEN EDUCATION SYSTEM PERFORMANCES AND LABOUR MARKET REQUIREMENTS¹

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Abstract

The purpose of this paper is to investigate some of the educational mismatches occurred in the Romanian labour market and to try to find solutions for a more rapid adaptation of the education system to labour market transformations. The analysis is based on a quantitative research aimed at studying employers' opinions related to the relationship between education system performances and labour market requirements.

The results show that even in a crisis period when unemployment is at high values, employers have difficulties in finding appropriate qualifications for some jobs, or the right candidate for the vacancies. Even current employees lack some important abilities or skills such as: motivation, loyalty or responsibility.

Key words: labour market. Education system, quantitative research, educational mismatches

In the last years, industrialized countries have experienced significant labour market transformations in terms of occupational structure. Official statistics and scientists' research have shown a tendency of job polarization towards both high skilled (high wages), low skilled (low wages) employment. The reasons for these changes are complex, involving among others technological and offshoring processes, slow pace of educational attainments, policy settings in terms of wages and union power and, not at least, crisis consequences.

Using data available for the period 2000-2008 and the 27 EU countries, CEDEFOP analysis (2011) shows that, in terms of sectoral structure, polarisation

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affected most of the economic branches, the only exceptions being education, health and social activity, fishing. As was expected, the most exposed sector to job polarisation was the services. In terms of unskilled workers, the largest increase occurred in the private households sector, agriculture, transport, storage and communications, wholesale and retail trade.

The expansion of these occupational categories, at the bottom of the wage distribution, has multiple explanations, many of them demographic or social (aging, migration, female employment increase), but also that could be related to the economic growth and the emergence of a group of wealthy people needing dedicated services.

An analysis confined to Eastern Europe and Central Asia (Sondergaard and Murtha, 2012) revealed for most of the countries of these areas a restriction of the occupations requiring low-skilled workers and an increase in the skill content of the jobs. From a sectoral basis, several trends have manifested more strongly: a sharp fall in the demand for qualifications in agriculture, caused especially by the decline of the employment in this sector, reduction of the demand for manual labour, skilled or unskilled, once with technological progress, increase in the demand for qualifications for the services sector, who, in fact, took over a lot of the workers employed initially in declining sectors, strong growth in the need for professionals.

Job polarisation creates challenges for the education system, which must provide the appropriate skills. Changes in the structure of economic activities and job polarisation bring into attention the need for generic skills or “soft” skills on the labour market.

A research conducted in the ECA countries shows that entrepreneurs are not only interested in technical and general knowledge and skills, but also in behavioural skills (Sondergaard and Murtha, 2012). The study of the authors already mentioned shows that entrepreneurs in countries like Kazakhstan give the same importance, or even greater importance to behavioural skills (ability to work independently, time management, communication, telephone conversations) than to general and technical ones (foreign language, working with computer, mathematical skills).

In Poland, among the firms surveyed, 70% considered as very important skills such as responsibility and accountability, motivation and commitment, while only 40% attaches great importance to advanced or basic technical / vocational skills.

Likewise, significant differences in the requirements of managers when hiring a person exist from country to country. If in the UK, entrepreneurs prefer employees with good command of literacy and numeracy, in Poland employers expect young people to have appropriate qualifications and job skills.

In fact, all these transformations in the labour markets that are not followed by education system adaptation to them create imbalances/mismatches of different nature: under-education/over education, under-skilled/over-skilled, under-qualification/over-qualification, skills gap, skills obsolescence, skills surplus/skills shortages.

The objective of this paper is to analyze different categories of mismatches that can occur between formal education of people and the specific requirements of their jobs and to assess their impact on the efficient functioning of the labour market. The analysis is based on a quantitative research aimed at studying employers' opinions on this topic.

Reaching this objective involves answering the following research questions:

- What is labour force perception about the relationship between education system performances and labour market requirements?
- Are there any signs of educational mismatches (skills shortages, skills gaps, skills obsolescence) in the Romanian labour market according to employers' opinions?
- Which measures can be taken to improve these imbalances?

Macroeconomic data available at national and European levels (NIS, 2012, EUROSTAT, 2012) has shown that the Romanian labour market has experienced major structural changes, following European pattern. Employment in agriculture has reduced significantly and it has mainly been replaced by jobs in services (service and sales workers).

Even though, the job polarisation process is not as advanced as in industrialized countries the first signs of reductions in some jobs, especially in the middle of wage distribution and increasing in the jobs requiring both high skilled and low skilled workers are visible now in Romania.

These structural changes have a complex range of causes explained in the labour market literature, but in the current context, economic crisis comes to amplify some of these trends.

For the foreseeable future it is of great importance to anticipate which will be the social and economic fields of activity affected by the labour market transformations. Education system could be one of these domains and the main challenge is to anticipate labour market requirements in terms of the future qualifications and competences that graduate should possess in order to be adaptable.

In this paper, a quantitative research on labour force perceptions about the relationship between education performances and labour market requirements is proposed with the main aim to statistically analyse the existence of some category of mismatches in the Romanian labour market: skill shortages and skill gaps.

Thus, starting from the list of questions to be addressed to employers, proposed by CEDEFOP (2010), the research themes refer to:

- Jobs/occupations that are difficult to fill/find and causes of these imbalances;

- Existence of skill deficiencies and the reasons for inadequacy with job requirements;

- The role of education and training in reducing mismatches.

The questionnaire, organized around the previous mentioned theme, deals with the following aspects:

- What is the average time needed to fill a vacancy in your company?

- Are there any occupations in your company difficult to be filled? If the answer is yes, name few of them.

- What are in your opinion, the main causes of difficulties in filling a vacancy? - Lack of qualified candidates; Inexperienced candidates; Work is unattractive (wages, working conditions); Location; Competition; Other causes.

- Which are in your opinion the main reasons for the shortages of qualified candidates for certain occupations: Rapid technological progress and changing structure of labour demand; Offer education system and its relationship with companies; Labour force migration; The salary for that occupation; Competition; Other causes.

- How do you rate compared to competition the salaries offered by your company to attract skilled labour for job vacancies difficult to be filled? (above average, average, below average)

- How long a new employee needs to become fully effective?

- Has this period increased over time?

- Are there any occupations in your company for which current employees do not have the necessary qualifications, experience and/or specialisation to perform their activities at the most efficient level? If the answer is yes, name few of them.

- The main reasons for the occurrence of these deficiencies are, in general, the following: Lack of suitably qualified candidates when hiring; Change of job requirements; Aging of employees and loss of skills; Lack of training programs at the workplace; Labour migration; Other reasons.

- Which of the following skills do you think are less present to your company employees? Scientific and technological (IT); Numeracy; Literacy/communication skills; Problem solving; Team work; Other.

- What are, in general, reasons why firms do not organize training courses to remedy such shortcomings? Costs; Time constraints; Lack of suitable training programs; They are not necessary or efficient; Other.

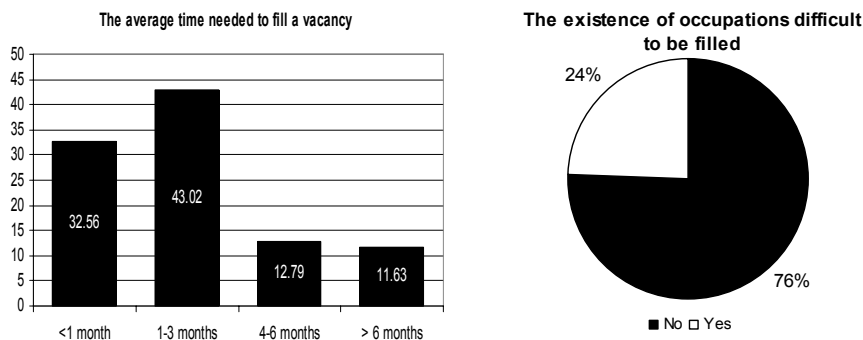
Results and discussion

The questionnaire has been applied on a number of 100 employers, from six of the Romanian development regions (Bucharest Ilfov, South, Center, South West, South East and North East). 75.58% of the employers are working in micro, small and medium enterprises, while the rest come from large and very large enterprises.

All the main fields of economic activities are represented in the sample with 30.23% of employers involved in Hotels and restaurants, transport, storage and communication, 29.07 in Other public and private services, 12.79% in Mining, quarrying and manufacturing, 11.63% in Financial intermediation, real estate, renting and business activities, 10.47% in Constructions and 3.49 in Agriculture. The largest share of the enterprises has a turnover less than 2 million euro (56%).

The first objective was to analyse the existence of skill shortages in the Romanian labour market and to find out the main causes for these imbalances. The questions referred to the time needed to fill a vacancy, the existence of occupations difficult to be filled, the main causes of difficulties in filling a vacancy, the main reasons for the shortages of qualified candidates for certain occupations and the salary offered to attract skilled labour for job vacancies difficult to be filled.

Skill shortages analysis results



43% of the respondents consider that the average time needed to fill a job is 1-3 months. The percentage of 11.63 of those appreciating that this duration is over six months are involved in activities such as: industry, trade and public administration, localised mainly in Bucharest Ilfov and South West regions.

Even though a large percentage of the employers appreciate that in their company do not exist vacancies that can not be filled, a quarter of them have difficulties in finding the right candidate for the jobs in fields like: corporate management (29%), finance and accounting (21%), informatics (14%).

Skill shortages main causes

| Main reasons for the shortages of qualified candidates for certain occupations | Total disagreement | Disagreement | Indifferent | Agreement | Total agreement |
|--|--------------------|--------------|-------------|-----------|-----------------|
| | % | | | | |
| Technological progress and changing structure of labour demand | 1.2 | 12.9 | 21.2 | 52.9 | 11.8 |
| Offer education system and its relationship with companies | 1.2 | 5.9 | 16.5 | 43.5 | 32.9 |
| Labour force migration | 0.0 | 5.9 | 21.2 | 44.7 | 28.2 |
| The salary for that occupation | 1.2 | 10.6 | 22.4 | 40.0 | 25.9 |
| Competition | 4.7 | 21.2 | 49.4 | 23.5 | 1.2 |

The main reasons for the difficulty in filling a vacancy are considered those related to the education system and its relationship with the business environment (76.5% of the respondents agree/totally agree) and labour force migration (72.9%).

Competition is rated as the less significant cause for the shortage of qualified candidates for certain occupations (24.7% of respondents agree/totally agree).

If in the current context, the time necessary to fill a job is not too long (1-3 months), the time period needed by an employee to become fully effective is much too large (over 6 months) appreciate 38.37% of the employers.

The same percentage of respondents who considered that they have difficulties in finding the right candidate for a job, appreciate that some of the current employees lack the necessary qualification, experience or specialisation to perform their activities at the most efficient level (24.42%).

Reasons for skill gap

| Skill gap | Total disagreement | Disagreement | Indifferent | Agreement | Total agreement |
|---|--------------------|--------------|-------------|-----------|-----------------|
| | % | | | | |
| Lack of suitably qualified candidates when hiring | 2.3 | 9.3 | 8.1 | 54.7 | 25.6 |
| Change of job requirements | 4.7 | 20.9 | 29.1 | 43.0 | 2.3 |
| Aging of employees and loss of skills | 8.1 | 22.1 | 31.4 | 30.2 | 8.1 |
| Lack of training programs at the workplace | 3.5 | 20.9 | 14.0 | 46.5 | 15.1 |
| Labour migration | 2.3 | 7.0 | 36.0 | 48.8 | 5.8 |

Employers rate as the most important reasons for these imbalances (skill gap) the lack of suitable qualifications (80.2% agree/totally agree) and training programs at the workplace (61.6% agree/totally agree).

Category of skills less present to the companies' employees

| Skills less present to the companies' employees | Total disagreement | Disagreement | Indifferent | Agreement | Total agreement |
|---|--------------------|--------------|-------------|-----------|-----------------|
| | % | | | | |
| Scientific and technological (IT) | 8.1 | 30.2 | 8.1 | 37.2 | 16.3 |
| Numeracy | 5.8 | 26.7 | 20.9 | 34.9 | 11.6 |
| Literacy and communication skills | 4.7 | 20.9 | 24.4 | 31.4 | 18.6 |
| Problem solving | 8.1 | 30.2 | 22.1 | 29.1 | 10.5 |
| Team work | 7.0 | 41.9 | 17.4 | 19.8 | 14.0 |

Regarding the category of skills less present to companies' employees, scientific and technological (IT) and literacy and communication skills are considered the most important by employers (over 50%). In addition, employers have difficulties in finding candidates/employees who dispose of knowledge/skills in management, law, statistics, history, international culture, or skills such as solving new problems and mobilization for routine tasks.

Main reasons for lack of training programs

| General, reasons why firms do not organize training courses | Total disagreement | Disagreement | Indifferent | Agreement | Total agreement |
|---|--------------------|--------------|-------------|-----------|-----------------|
| | % | | | | |
| Costs | 2.3 | 3.5 | 8.1 | 44.2 | 41.9 |
| Time constraints | 2.3 | 12.8 | 36.0 | 37.2 | 11.6 |
| Lack of suitable training programs | 3.5 | 24.4 | 26.7 | 32.6 | 12.8 |
| They are not necessary or efficient | 18.6 | 25.6 | 23.3 | 26.7 | 5.8 |

One efficient method for dealing with the skill gaps would be the organization of training programs for employees. However, not all the companies are willing to invest in such activities and the main reasons for their reticence are represented, according to employers, by costs and time constraints.

Results of the regression analysis of the factors that influence companies turnover

| Model | Unstandardized Coefficients B | Std. Error | Standardized Coefficients Beta | t | Sig. |
|--|-------------------------------|------------|--------------------------------|--------|-------|
| (Constant) | 2.635 | 0.636 | | 4.142 | 0.000 |
| Time needed by an employee to become fully effective | 0.256 | 0.140 | 0.177 | 1.819 | 0.072 |
| Lack of suitably qualified candidates when hiring | -0.435 | 0.137 | -0.312 | -3.182 | 0.002 |
| Fields of activity | -0.2064 | 0.074 | -0.276 | -2.790 | 0.006 |

Dependent Variable: Turnover (MIL Euro)

| | |
|----------|-------|
| R Square | 0.187 |
| F | 6.676 |
| Sig. | 0.000 |

The variables for which data were obtained by quantitative research were introduced in the regression analysis in order to identify those who have an influence on turnover of firms. Thus, factors that were found to have a significant contribution to changes in turnover are: time needed by an employee to become fully effective, the lack of suitably qualified candidates when hiring and industries in which firms operate. Of these, according to standardized

beta coefficients, the most significant impact has the lack of suitably qualified candidates (-0.312).

Conclusions

Nowadays, macroeconomic environment is a turbulent one with important consequences on all economic and social activities. Labour markets have suffered structural transformations due to factors like globalisation, technological progress, changes in population structure or people preferences. The recent crisis has put its mark on all these developments, deepening the problems: unemployment, vulnerable employment, poverty etc. In addition, 'the declining tendency of the employed population recorded in the last few years, especially due to the economic crisis, will continue to exist in the foreseeable future' (Lazăr and Lazăr, 2011).

Many scientists point to the education as one of the main solutions for some of these problems, especially when youth unemployment is concerned. But, in this context of rapid transformations of the labour markets, the education system has to face the challenges represented by the emergence of educational mismatches: over-education/under-education, over-qualification/under-qualification, over-skilled/under-skilled, skill shortage/skill surplus or skill gap.

The purpose of this paper was to analyse some of the educational mismatches in the Romanian labour market and to try to find solutions for a more rapid adaptation of the education system to labour market requirements.

In order to find out what is the perception of employers related to the concordance between job requirements and the level of education/qualification/skills of the employees a quantitative research has been performed and a questionnaire applied on 100 respondents. The research had three objectives: to evaluate the existence of skills/jobs shortages and their causes, to assess skills/jobs gaps and the reasons for their emergence and the role of education and training in reducing these mismatches.

When asked about their opinions related to the causes of the mismatches between job requirements and employees' profile, the employers considered that these are shared between employees (lack of some behavioural skills: motivation, loyalty, responsibility) education system (poor relationship with business environment) and companies (lack of preoccupation to find the right candidate, to prepare and motivate).

In this context, the education system needs to face some important challenges: to anticipate labour market requirements in terms of qualifications, skills and competences, to attract companies in collaborations for training the

students and ensuring them the experience required at the first work place, to create ideas for new businesses and qualifications for them.

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