

Marcel Dolobac<sup>1</sup>, Ladislav Mura<sup>2</sup>, Marek Svec<sup>3</sup>  
**PERSONNEL MANAGEMENT AND THE NEW SYSTEM  
 OF DUAL EDUCATION IN SLOVAK REPUBLIC**

*This paper explores new possibilities in the field of personnel management in Slovak Republic in selection and recruitment of new employees at the time when a new system of dual vocational education is being given priority as an instrument for improving the coherence of the education system meet the labour market needs. Particular attention is paid to the analysis of the current labour market situation in terms of employment for school graduates as well as projecting future trends. The paper also notes the shortcomings in terms of other needed systemic changes in Slovakia's regional secondary schools that may become the root cause for the failure of this new system.*

*Keywords:* vocational education; unemployment; personnel management; labour market; apprenticeships.

*JEL classification:* J08; E24; O15.

Марсель Долобач, Ладіслав Мура, Марек Швець  
**КАДРОВИЙ МЕНЕДЖМЕНТ ТА НОВА СИСТЕМА  
 ПОДВІЙНОЇ ОСВІТИ У СЛОВАЧЧИНІ**

*У статті досліджено нові можливості у сфері кадрового менеджменту у Словаччині відносно відбору та рекрутингу нових робітників у межах нової системи подвійного професійно-технічного навчання, в якому пріоритет віддано підвищенню відповідності освітньої системи потребам ринку праці. Особливу увагу приділено аналізу актуальної ситуації на ринку праці, зокрема, відносно випускників шкіл, а також прогнозування трендів майбутнього розвитку. Окремо описано недоліки реформи та необхідні системні зміни, без яких описані нововведення приречені на провал.*

*Ключові слова:* професійно-технічна освіта; безробіття; кадровий менеджмент; ринок праці; виробниче стажування.

*Літ. 19.*

Марсель Долобач, Ладіслав Мура, Марек Швець  
**КАДРОВИЙ МЕНЕДЖМЕНТ И НОВАЯ СИСТЕМА  
 ДВОЙНОГО ОБРАЗОВАНИЯ В СЛОВАКИИ**

*В статье исследованы новые возможности в сфере кадрового менеджмента в Словакии относительно подбора и рекрутинга новых работников в рамках новой системы двойного профессионально-технического обучения, в которой приоритет отдан повышению соответствия образовательной системы потребностям рынка труда. Особое внимание уделено анализу актуальной ситуации на рынке труда, в частности, относительно выпускников школ, а также прогнозированию трендов будущего развития. Отдельно описаны недостатки реформы и необходимые системные изменения, без которых описанные введения обречены на провал.*

*Ключевые слова:* профессионально-техническое образование; безработица; кадровый менеджмент; рынок труда; производственная стажировка.

**Introduction and literature review.** In its communication titled "Rethinking Education" (European Commission, COM 2012/0669) as well as in its communication "Youth Unemployment" (European Commission, COM 2013/0447) the European Commission called on Member States to step up with their efforts to deve-

<sup>1</sup> Pavol Jozef Safarik University in Kosice, Slovak Republic.

<sup>2</sup> Pan-European University, Bratislava, Slovak Republic.

<sup>3</sup> University of Ss. Cyril and Methodius, Trnava, Slovak Republic.

lop a system of world-class vocational education and training to improve the quality of skills needed in pursuit of a profession and to promote work-based learning, including quality traineeships, apprenticeship and dual systems (CEDEFOP, 2012–2014). Similarly, the European Parliament, following the request by the Committee on Culture and Education (CULT), published a study examining strengths and weaknesses of dual education and exploring the development of a policy in the EU-28 for introduction and/or improvement of this type of learning. The fundamental message of this study is to reinforce the mechanisms of dual vocational education in individual EU Member States. Mindful of the above-mentioned European efforts as well as continuing high youth unemployment rate in Slovak Republic (reached 28.9% at the end of 2014 (more recent official data are not available)), placing Slovakia among the 8 worst Member States, Slovak legislators implemented strategic measures at the labour market aimed at reversing this trend. In addition to introducing the so-called youth guarantees, which include the guarantee of entry into a first job for graduates of secondary schools and universities and introducing the so-called deductible item for employers (partial financial compensation to cover employer's health insurance contributions when employing a graduate), introduction of a new system of dual vocational education at the secondary school level is another of the most important measures enacted. According to (Bulla, 2015), the new education concept was elaborated on the basis of theoretical and practical experience in cooperation with Austrian, Swiss and Dutch experts, and promoted especially by international companies in mechanical engineering and automotive industries, Slovak legislators view it primarily as an instrument to improve integration of graduates into the labour market and secondarily to modify the education system to be responsive to the needs of the actual workplace. The new system of vocational education (Horska et al., 2009; Vojtovic, 2012; Vojtovic and Krajnakova, 2014) represents an essential, comprehensive change affecting many fields, including innovation (Nagyova et al. 2013; Haviernikova, Srovnalikova and Jansky, 2015), labour legislation, social security and health insurance systems, taxation policy and the legislative framework of the education system itself (Novotna, 2013). Based on practical experience, the new system even at this moment may be viewed as a step in the right direction because more than 94 companies, generating a substantial part of gross domestic product in Slovak Republic including those in the automotive, metallurgical and healthcare sectors have been participating in it since 1 April 2015. The need for changes at the labour market in the so-called transforming countries has been analysed by I. Mihajlovic et al. (2008), L. Mura (2012), M. Raisova et al. (2014) at the corporate level and most recently within the Visegrad Four (V4) countries by J. Poor et al. (2015). Most studies share the view that labour markets in these countries need to be more flexible and must enhance hiring of new graduates by qualitative, practice-oriented professional learning and active promotion of employment by the state.

**Problem statement and research objective.** The main aim of the paper is to analyse the contents of the new concept of dual vocational education as an instrument to reduce high youth unemployment caused by insufficient or inappropriate education in terms of labour market needs. The paper also attempts to evaluate the relationship between the implementation of strategic measures thus far and the possibility for employers to achieve better active management of business costs, particu-

larly cost savings through their appropriate use, as illustrated by how to save labour costs when participating in the dual education system. Another partial aim is to analyse possible directions that enterprise personnel management should additionally take in employing young job-seekers, for example, when taking into account employees' so-called stabilization commitment (employee's obligation to remain in employment relationship with a particular employer after studies completion). In preparing the paper the authors focused on the factual data from primary and secondary sources. The primary data were obtained from the scientific project VEGA No. 1/0805/13 "Optimizing the arrangement of the labour relations model in the labour market in the Slovak Republic" funded by the Ministry of Education, Science, Research and Sport of the Slovak Republic; secondary data were obtained from scientific literature. The methodical procedure was subjected to the stated goals and when preparing the paper, the authors used critical depth analysis of the legal situation, scientific and cognitive methods and also descriptive statistics.

#### **Key results.**

*I. Evaluation of the current situation within the context of new changes.* There was a functional system of dual apprenticeship learning in Slovakia, as part of Czechoslovak Republic, until 1989 when it ended due to major social, political and economic changes (Olsovska, 2014). Existing projections of Slovak labour market indicate that in the horizon of the next 5 years approximately 320,000 new employees will be needed, of which 75% will be required to replace the retiring staff and the remaining will be necessary for further economic development. Based on the current shortage of skilled labour, especially in the manufacturing sector, and the aforementioned high level of youth unemployment, a comprehensive system of dual education should be reintroduced in the forthcoming years.

The number of graduates from secondary vocational schools decreased by 18.4% over the last 7 years, from 15,700 to the current 12,800. According to numerical projection for 2015, further decrease to 10,500 graduates is expected (Statistical Office of the Slovak Republic). Regarding the integration of these graduates into the labour market, the situation is dismal, as more than 75% of the graduates of secondary vocational schools have been unable to find a job in their study field due to the obsolescence of the teaching contents used. The unemployment rate of vocational graduates in their fields was the highest of all secondary school graduates in 2014 with the median value of 25.1%.

At the same time, about 41,000 people are leaving their working positions at the labour market that must be filled by graduates of secondary vocational schools. Current projections indicate the shortage of more than 35,000 people in manufacturing in coming years, including new employees who should replace employees reaching the retirement age. The education system provides the labour market with slightly more than 5,000 qualified employees who can immediately match manufacturing processes. This quantified estimate predicts that the disparity will cause the maximum annual negative impact of 1.1 EUR to 1.6 bln EUR on potential gross domestic product formation in the upcoming 10 years (2015–2025) and a total negative effect of almost 12 bln EUR (PricewaterhouseCoopers Slovakia, 2014–2015).

In the current situation, only about 25% of the secondary vocational schools graduates will find a job in their study field or a related one. The remaining graduates,

after completing their studies, have to immediately retrain and attempt to find employment in another field or enter unemployment, with a low possibility of finding a suitable job. Funds invested in education are thus used in an ineffective way without any link to the labour market needs. When employers try unsuccessfully to find employees they need at the labour market, the situation is even much more regrettable. Also in this context, the government as well as employers incur additional expenses relating to unemployment social benefits and retraining initiatives. Current projections are that additional costs to employers for training and retraining of graduates as well as for more difficult recruitment of graduates in insufficient study fields will reach 137 mln EUR during 2015–2025 and that the implementation of a new dual system of vocational education could save 34 mln EUR of these costs (PricewaterhouseCoopers Slovakia, 2014–2015).

*II. The new system of dual vocational education in Slovak Republic.* According to UNESCO (CEDEFOP (2012–2014)), this system of education is called "dual" because it combines apprenticeship in a company with vocational education at a school under a combined programme. The apprentice receives vocational training directly in a company and this is supplemented with theoretical instruction at a school. According to the European Centre for the Development of Vocational Training (CEDEFOP (2012–2014)), dual education represents a combination of a period of vocational education or training at an educational institution or in a vocational training centre as well as in a workplace. CEDEFOP also uses the following terms as interchangeable synonyms for dual education: "dual learning", "alternate vocational training", "apprenticeship" and "work-based learning".

Taking into account the determination of contents, Slovak Republic considers dual education to be the system of vocational education and training for a profession through which knowledge, skills and abilities necessary for a profession are acquired. In particular, it is characterized by a close link between general and vocational theoretical education at a secondary vocational school and work-based learning with a particular employer. The system of dual education is unique because it establishes a relationship between an employer and a student, defined by means of an apprenticeship contract (Article 19 of the Act on Vocational Education and Training), regulating rights and obligations of contracting parties with respect to vocational training. Another important aspect of the dual education system is the relationship between an employer and a vocational school, concluded on the basis of a training contract that primarily regulates the scope, conditions and coordination of theoretical and practical education. The employer is fully responsible for vocational training of a student and also bears all expenses related to it.

Achieving employees' higher professional preparedness with a direct connection to employers' requirements, cost savings in recruitment through employment agencies, and cost savings in retraining employees are the basic advantages stated by employers involved in the system of dual education. Additionally, through such training of future employees an employer can increase loyalty to the company, decrease labour turnover and improve working habits of employees.

In the first phase of the implementation of the new system in 2014–2015, amended national regulations were adopted in order to broaden the offer of dual education with more significant involvement by enterprises (the new Act No. 61/2015,

Coll. on Vocational Education became effective on 1 September 2015). Alongside this national effort, several regions of Slovakia have initiated pilot projects that will, under applicable legislation, provide and monitor possibilities and space for apprenticeships in cooperation with enterprises and secondary vocational schools in these regions, focusing particularly on automotive, metallurgical and steel firms, perceived as traditional industries in Slovak Republic.

Work-based learning in the system of dual education is carried out in vocational training area of an employer's workplace. This vocational training area is considered an organisational part of the employer, to which it has the ownership right or the right to use, if the employer has been granted a certificate of competency to provide work-based learning within the system of dual education. The certificate entitles employer provide work-based learning to students with whom this employer has concluded an apprenticeship contract based on contractual cooperation with a selected secondary vocational school, together having the form of the contract on dual education. The competence of the employer to provide work-based learning in a study field or through apprenticeship in the dual education system means, in particular, material, technical, professional and personnel preparedness to provide work-based learning in accordance with the Education Act and the Act on Vocational Education and Training. It also means ensuring preparation of a student to pursue a particular profession in accordance with the state education programme, the model study plans and curricula for the dual education system. If it is required by the nature of a profession for which a student is preparing, vocational training or professional experience may be temporarily carried out at another workplace that is designated by employer (service or assembly at a customer's premises, providing services directly to customer etc.).

Work-based learning of a student at an employer is to take the form of vocational training or practical application organized as a vocational subject under the model study plans and curricula. Vocational training in its practical application is carried out under the supervision of a master or instructor. Students' work-based learning in vocational training is conducted in study fields for which the student will receive a vocational certificate. This system of education ensures that education and training of a student for pursuit of a profession fully corresponds to the requirements of the employer. When conducting the practical training, employer is obliged to provide the student with personal protective equipment, ensure medical examination, and provide compensation to the student, if necessary, for documented expenses associated with work performance such as travel expenses.

The employer concludes the so-called training contract with the student (or his/her legal representative) that contains the basic set of rights and obligations of both contracting parties, with the most important part of training contract covering student's material and financial security. The training contract may be terminated by a three-month notice based on specified grounds (such as loss of student's medical fitness or repeated violations of the obligations). Financial security of a student within the system of dual vocational education primarily means providing a motivation stipend and remuneration for productive work. Employer provides motivation stipend to the student on a monthly basis and its amount is calculated based on to the student's school results and regular participation in instruction as follows:

- 58.78 EUR – at average results of the student up to 1.8;
- 40.69 EUR – at average results of the student worse than 1.8 and up to 2.4;
- 22.61 EUR – at average results of the student worse than 2.4 and up to 3.0.

In addition to the motivation stipend, a student is entitled to remuneration for productive work if he or she manufactures products or provides services that are in accordance with business activity of the natural or legal entity for which the student performs this work. Remuneration is provided for each hour of productive work at 50% to 100% of the minimum hourly wage, i.e. ranging from 1.092 EUR to 2.184 EUR per hour. The remuneration paid for productive work is subject to tax and social and health insurance contributions.

*Example 1. Quantification of employer's savings per new employee outside the system of dual education (for a blue collar worker). Cost structure per new employee of a non-technical study field:*

1. Time needed for training (CNC machining)"
  - 1 technology => approx. 9–12 months;
  - 5 technologies => approx. 18–24 months.
2. Time allocation for an instructor (trainer) during the two-year training = 20% of the working time (5 months).

3. Productive performance after 1 year (partial).

4. Remuneration for productive work:

- 100% wage + social and health contributions from the first working day.

5. Investments: none

6. Overall costs:

- 24 months x 1,000 EUR.
- 24 months x 20% wage of a trainer.
- Additional costs (sickness absence, visiting the doctor, vacation etc.).

Overall costs for the employer: 31,500 EUR.

*Cost structure per new employee in the system of dual education:*

1. The total length of dual education:
  - Study fields without school-leaving examination (SLE) – 36 months.
  - Study fields with school-leaving examination (SLE) – 48 months.
2. Time allocation of a master of vocational training = 100% of the working time.

3. Productive performance after 2 years (partial).

4. The remuneration for productive work:

- 60% of the minimum wage for each hour worked/

5. Investments: none.

6. Total cost:

- 10 months x (40 EUR stipend + 150 EUR master of vocational training).
- 10 months x (60 EUR stipend + 75 EUR master of vocational training).
- 10 months x (80 EUR stipend + 100 EUR master of vocational training).
- 10 months x (100 EUR stipend + 75 EUR master of vocational training).
- No additional costs (sickness absence, vacation etc.).

Overall costs for the employer: 6,725 EUR.

In order to secure the funds invested by an employer in the system of dual education, the Labour Code allows employers conclude the so-called future contract

with a student aged 15 and older obliging enter into an employment relationship with the student after passing the final state examination and the student's obligation to become employed by this particular employer. The obligation of a student to remain in the employment relationship with the employer is limited by the Labour Code to the period of up to 3 years after passing the final state examination. If the student fails to meet this obligation, the employer may require the student to reimburse costs connected with training for a profession included into the system of dual vocational education.

**Conclusion.** The need for modernisation of the vocational education system is very topical right now because of serious systemic problems at Slovak labour market. Employers cannot fill in some kinds of job vacancies because of the lack of graduates with necessary labour market qualifications and expertise. However, for other kinds of jobs there are too many graduates, especially those with a school-leaving exam or university degree. Training of future workforce in Slovakia does not meet the requirements of the labour market. In this context, despite the changes being implemented in dual vocational education, we should note that there are no current discussions at the national level concerning a new arrangement of competencies in regional secondary education. Taking into account Slovak characteristics it is worth considering, according to M. Barinkova and J. Zulova (2015), the establishment of a specialized school administration in the future at the level of municipalities. Secondly, a "mental change of paradigm" is necessary in terms of education system's functioning and aims. The focus should be on the student and the services provided to him/her during the educational process, not on the schools or their network. Schools should first and foremost be an environment focusing on different needs of students and not as employers or teachers, i.e. a kind of a tool for building their social guarantees. Therefore, if there are no other systemic changes in other parts of the education system and in school administration in the forthcoming period, it is possible that the aims set forth in improving the youth unemployment situation and improving the links between the education system and the labour market will not be reached. By means of selection, schools with dual education will be established in urban areas with large foreign employers; however, in terms of the number of these students, their proportion will represent a marginal number and all these efforts could end up without any significant effect.

**Acknowledgement.** *The paper was written as part of the project (VEGA) of the Science Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic and the Slovak Academy of Sciences: "Optimalizacia usporiadania modelu pracovnych vzťahov na trhu prace v Slovenskej republike", Project No. 1/0805/13.*

#### **References:**

- Barinkova, M., Zulova, J.* (2015). Understanding the Social Model of Disability in the Context of Slovak Labour Law. In: Prawo a niepełnosprawność: wybrane aspekty (pp. 269–279). Warszawa: Wydawnictwo C.H. Beck.
- Bulla, M.* (2015). Medzinarodne pravo sukromne Eurupskej unie optikou pracovneho prava. Bratislava: Friedrich Ebert Stiftung, Office Slovakia. 55 p.
- CEDEFOP (2012–2014). From teaching to working life: outcomes of vocational education and training in the labour market // [www.europarl.europa.eu](http://www.europarl.europa.eu).
- European Commission (2012). Rethinking education: Investing in skills for better socio-economic outcomes (COM(2012)0669) – European Commission // [eur-lex.europa.eu](http://eur-lex.europa.eu).

European Commission (2013). Working together for Europeans young people – A call to action on youth unemployment (COM(2013)0447) // eur-lex.europa.eu.

Haviernikova, K., Srovnalíkova, P., Jansky, B. (2015). Identification of clusters potential in regions. Actual Problems of Economics, 169(7): 236–244.

Horska, E. et al. (2009). Multikulturne vzdelavanie a europske obcianstvo. Nitra: Slovenska pol'no-hospodarska univerzita. 183 p.

Mihalovic, I. et al. (2008). Factors influencing job satisfaction in transitional economies. Journal of General Management, 34(2): 71–87.

Mura, L. (2012). Performance of Human Resource Management in an Internationally Operating Company. Serbian Journal of Management, 1: 115–129.

Nagyova, L. et al. (2013). Inovacni potencial Jihoceskeho kraje. Ceske Budejovice: Nakladatelstvi JIH – Frantisek Ber. 95 p.

Novotna, J. (2013). Critical Thinking in Education. Great Britain, London: STS Science Centre. 128 p.

Olsovska, A. (2014). A typical employment relationship in Slovakia. In: Implementation and enforcement of EU labour law in the Visegrad countries (pp. 141–155). Olomouc: Palacky University.

Poor, J. et al. (2015). HR Management at Subsidiaries of Multinational Companies in CEE in Light of Two Surveys of Empirical Research in 2008 and 2013. Acta Polytechnica Hungarica, 12(3): 229–249.

PricewaterhouseCoopers Slovakia (2015). Automotive Suppliers Survey 2014–2015 // www.pwc.com.

Raisova, M., Buleca, J., Michalski, G. (2014). Food processing firms inventory levels in hard times. 2004–2012 Slovak, Czech and Polish enterprises case. Procedia Economics and Finance, 12: 557–564.

Statistical Office of SR (2015). Statistical yearbook of the Slovak Republic // www7.statistics.sk.

Subertova, E. a kol. (2015). Komparacia pristupov k podpore podnikania. Bratislava: Ekonom. 100 p.

Vojtovic, S. (2012). Analysis of the Global Trends on the Labour Market. In: Personal management in bewegten Zeiten (pp. 61–71). Plauen: M&S Verlag OHG.

Vojtovic, S., Krajnakova, E. (2014). Development of new economy and human capital. Vadyba: Journal of Management, 25(2): 145–150.

Стаття надійшла до редакції 26.01.2016.