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WROCŁAW UNIVERSITY OF ECONOMICS GRADUATES' KNOWLEDGE AND SKILLS RELEVANCE FOR LABOR MARKET
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Abstract
New possibilities given by development projects financed from the European Social Fund allow for extensive assessment of knowledge and skills relevance for labour market. At Wrocław University of Economics (WUE), systematic measurement of students' quality conducted by the University is accompanied with extensive research of employers' perception of University graduates. The paper presents analysis results of internal and external assessment of the quality of knowledge and skills along with their relevance for labour market needs. Analyzed internal data is collected in the process of education. It is enriched with extensive data collected by survey of employers' opinions. As a result of analysis, the appropriate measures are taken to improve the quality of curricula, teaching methods, and to introduce soft skills development actions in the University practice.

Key words: Quality assessment, European Social Funds, Labour Market

1. INTRODUCTION
The realization of full potential of human resources is of enormous importance in knowledge based economy. Modified Lisbon Strategy and Strategy Europe 2020 both emphasize the necessity of adjustment the knowledge and skills of labour market participants to present expectations and needs of employers. In case of persons who already finished their education this process of adaptation is realized mainly by efficient and effective lifelong learning (most often in the form of adequate training and other forms of additional schooling). In case of persons who are still in education system the activities are focused on modifications of curricula in order to make them more relevant for present labour market needs. High schools, and especially Universities, have particularly big role in this process. For many years the Universities have acted in the area of improving the quality of education, primarily by means of surveys among students focused on the evaluation of educational processes. Since recently intensified actions are conducted in the area of cooperation with employers as well. The development of the later is possible to great extent due to external means of financing, mainly from the European Social Fund. The main goal of the paper is to present the potential possibilities of financing from European Social Fund the activities of Polish universities in the area of improving the situation of students and graduates while entering the labour market. Possible actions are described basing on the Wrocław University of Economics experiences and solutions adapted since the year 2008. The presentation focuses on activities toward students as well as evaluation of the level of student’s preparedness using various sources of information.
2. THE POSSIBILITIES OF DEVELOPMENT OF POLISH UNIVERSITIES BY MEANS OF EUROPEAN SOCIAL FUND

In Poland in years 2007 – 2013 European Social Fund has been realized within the frames of operational programme named „Human Capital”. The programme budget is 11.5 billion Euro, 85% of which is financed by the European Union. One of the priorities of „Human Capital” Programme is dedicated to higher education and science. The biggest part of the funds in this priority is allocated for the projects focused on Strengthening and development of high school educational potential. The universities may apply for the means to finance its development programmes. Development programmes may be oriented on various activities, among others on the following:

— Widening and making the educational offer more attractive by creating and starting new study majors and new study specializations, interdisciplinary doctoral programmes, initiation of e-learning, adaptation of existing curricula to current needs of labour market.

— Creating equal education opportunities by teaching compensating classes designed especially for the first year students (in order to enable the students to make up for the arrears).

— Strengthening the University cooperation with the employers by organizing discussion panels on the evaluation and curricula modification proposals, open lectures and seminars for students given by business practitioners.

— Improving the students’ and graduates’ preparedness to enter the labour market by organizing internships, trainings upgrading the „soft skills”, as well as „hard skills”, activities directed at supporting the personal development of students (mentoring/couching/tutoring).

— Improving didactical abilities of University employees in order to make the classes more attractive and interesting by training and study tours to leading academic centres.

— Building up the prestige of University and improving the access to the latest achievements of science by financing the stays of visiting professors from various scientific fields and enabling access to databases and scientific journals.

— Opening the University to local community by preparing and introducing the lifelong learning programmes directed most of all at increasing the skills and updating the knowledge of people working in the region.

In the years 2008 – 2010 seven competitions for high schools development projects were conducted. The fund allocation for those seven competitions totaled 565 millions Euro (2.34 billions PLN). Figure 1 presents the values of allocation, applied projects, signed contracts and accepted expenses.

The universities’ response to the competitions was enormous, due to the immense opportunities which the projects can provide. There were 1645 project applications for total sum of 9 billion PLN, which accounts for 385% of available allocation. From among all applications 366 projects were financed, and the total sum of signed contracts amounts 2.1 billion PLN. The contract amount forespends the available programme funds in 90%. Current amount of accepted expenses for development projects totals 1 billion PLN, what accounts for above 40% of all funds provided for development projects.
3. DEVELOPMENT PROJECTS REALIZED AT WROCŁAW UNIVERSITY OF ECONOMICS

Wrocław University of Economics is a public high school operating since 1947, currently ranked as the second biggest economic university in Poland. The University has four faculties of 1st category and is authorized to grant degrees, among them PhD and doctor habilitatus. The University carries out first, second and third level studies for nearly 17 thousand students. Altogether it employs 1385 persons, including 709 academic teachers (142 professors). The didactic process at the University is supported by substantial number of institutional units. The University campus dispose of 32 buildings with joint area of over 100 thousand squared meters.

Since the moment that Poland joined the European Union WUE have been successfully applying for funding from European Social Fund. In the first programming period (2004-2006), the University obtained more than 7 million PLN (about 1.8 million Euro) for seven training projects devoted to employees of small and medium-sized enterprises and persons working in Lower Silesia. Thanks to those projects the University's teachers could improve their training skills by working with diverse target groups. This experience has produced desired effects in the current programming period.

Since the year 2008, in the second programming period, the University has acquired enormous resources for the implementation of four development projects within the frames of Operational Programme Human Capital with total amount of nearly 50 million PLN (about 12 million Euro). The

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1 OPHC Project: Uniwersytet Ekonomiczny kuźnią kadry zarządców dla opartej na wiedzy gospodarki, (Wroclaw University of Economics as a Staff Forge for Knowledge Based Economy); contract no.: UDA-POKL.04.01.01-00-091/08-00, implementation period 2008 - 2010. OPHC Project no. POKL.04.01.01-00-057/09 Kuźnia Kadr 2, czyli wzmocnienie potencjalu rozwojowego Uniwersytetu Ekonomicznego Wrocławiu poprzez rozszerzenie oferty edukacyjnej i szkolenie kadry dydaktycznej (Staff Forge 2, Wrocław University of Economics Development Potential Improvement through Broadening of the Educational Offer and Training of Staff); Implementation 2009 – 2012. OPHC Project no. POKL.04.01.01-00-229/09 Kuźnia Kadr 3, czyli wzmocnienie potencjalu rozwojowego Uniwersytetu Ekonomicznego Wrocławiu poprzez rozszerzenie oferty
main objective of all development projects is to strengthen educational potential of the University. The specific goals of the projects were primarily to enhance the cooperation with the employers in order to improve students’ and graduates’ preparedness to enter the labour market, to perfect training abilities of our teaching staff and to intensify the openness of the University to local community. Four projects jointly called „Staff Forge” consist of activities directed toward students, people outside of the academic community, as well as teaching and managerial staff of the University.

Main activity in the area of extending the University’s offer for the people outside of the academic community was the organisation and implementation of modern interdisciplinary postgraduate studies targeting the people with extensive professional experience but without economic education. This idea has received recognition among the working professionals. There were three times more candidates than planned places. Additionally very rich offer of brief (up to 40 hours) training courses for working persons in the areas of University’s main field of operation has been prepared (including management, finance, accounting, marketing, usage of application software as well as business internationalization). These courses are very popular. Since the beginning of the projects (from the year 2009 onwards) over 4 thousand working persons have expressed interest in the participation, and already more than 2 thousand have completed the trainings. It is worth emphasizing the fact that the offer of training was prepared in Polish, English as well as in German language. The offer for our teaching staff consist of trainings in the area of didactic skills conducted by professional trainers of adults (the so-called school of trainers and school of champions), study tours to foreign scientific and research centres, access to foreign databases and scientific publications in the fields of economics, management and finance. The possibility of financing the stays of visiting professors from words’ leading scientific and research centres is also of enormous importance.

However, the main target group of University’s development projects remain our students and graduates at all study levels. Actions in this area can be divided into four groups:

a. Extension of the University’s educational offer through introduction of new specialities adjusted to the current needs of the labour market.

b. Strengthening the cooperation with employers in order to modify and update the curricula.

c. Actions addressed directly to students, whose aim is to equip young people with the practical knowledge and skills to help them successfully enter the labour market.

d. Facilitating the access to full University’s offer for disabled students.

Ad. a. Until today six new specialities have been implemented at the University within the frames of development projects, all being elaborated as a response to the current market demand. The main three specialities are conducted in English language: Financial Management, Corporate Finance and Business Administration. The studies conducted in Polish language were developed especially for the needs of the treasury services (State Finances), and developed jointly with the largest regional company, a major and global copper and silver producer KGHM Polska Miedź S.A. (Project Manager and Business Analyst). What distinguishes these new specialities among others is that up to 30% of the courses is taught by practitioners and specialists from the industry concerned. Moreover the courses make wider use of modern teaching and place greater emphasis on transferring practical knowledge...
and skills that are cherished and sought-after by employers. Already 800 people have participated in
the new specialization studies. Upon the testing period, the new specialities will become a part of the
University's commercial offer.

Ad. (b) Strengthening the University's cooperation with employers consists foremost in organization
of cyclic thematic discussion panels. The participants in those meetings are the employers from the
Lower Silesia region and managerial and teaching staff of the University. The panels are dedicated to
the elaboration of curricula adapted to current needs and expectations of the market for each individual
major and specialty. Another topic of the meetings covers the issues of including practitioners in the
process of teaching, among others by developing an effective system of coaching and mentoring. The
main effect of cooperation in this area is establishment of HR mentor team consisting of 16
practitioners who were trained and prepared to act as mentors for University's students, starting next
academic year.

Ad. c. Actions addressed directly to the students include:

— Three-month paid internships – addressed to students of the last years of I and II level of studies,
as well as to University's graduates (up to 6 months from graduation). The number of the intern’s
working hours is 15 to 30 a week. Each intern during its work is assigned a supervisor, which
assists him in completing the scheduled internship plan. The University periodically cooperates in
this field with nearly 300 labour market entities from Lower Silesia region (enterprises and public
institutions). Since the year 2009 already over 2300 persons have benefited from internship
programme, 67% of them were women. According to the students, this is the most effective form
of support which gives them the possibility of practical training before starting their professional
career. It is worth emphasizing that nearly 30% of the interns is employed by the institutions,
which held the internships.

— „Soft skills” trainings and workshops in the areas useful at the beginning of professional career
(e.g. setting up own business) or particularly cherished by the employers (integrated management
systems, multicultural communication, implementation of the Europe 2020 Strategy issues). Until
now almost 1000 students benefited from the variety of those kind of courses. The vast majority of
them found the classes very interesting and useful in work search.

— Seminars with business practitioners organized as the cycles of four three-hour meetings for
students in groups of 15-20. Seminars are themed and concern various practical aspects of the
specialized work position and/or specific occupation type. Among other things students can learn
whether their perceptions of future work are correct, what knowledge and skills are necessary to
meet the requirements, what is the potential career path, etc. Students are very willing to
participate in that kind of classes and appreciate their high quality. As for now nearly 300 people
benefited from this form of assistance.

— The Staff Forge Academy is a cycle of open lectures taught by business practitioners. The first
edition of the lectures was held in the current academic year. The offer consisted in 10 lectures on
various topics carried out by specialists in diverse fields. The persons who participated in at least
seven meetings received a certificate and 1 ECTS point. The first edition of the lectures had 120
graduates.

— Coaching is the latest of activities addressed to students, started in March 2012. Four professional
coaches took under their guardianship 40 students. The first experiences are positive and
promising, subsequent editions are planned for the next academic year.
Ad. d. Facilitating the access to full University's offer for disabled students is realized by lifts installation in all main University's buildings, equipping 12 classrooms with appropriate facilitations for people with disabilities and providing three sets of computer equipment for the visually impaired (laptop, software, enlarger). In the following years further investments are planned. Due to those facilitations the University has become more open, and the percentage of people with disabilities studying at the University is increasing systematically.

4. THE EMPLOYERS EVALUATION OF WUE STUDENTS' AND GRADUATES' PREPAREDNESS LEVEL

The employers which cooperate with the University by means of paid internships are each time asked to evaluate our students and graduates. Survey of employers' concerns three aspects: assessment of the interns' preparedness to enter the labour market, assessment of interns' possible competence vulnerability and the overall assessment of the economic major graduate's adjustment to employers’ expectations and requirements. The main source of information are reports from the biggest cooperating companies, in which the number of interns was at least ten. The opinions are collected from interns' supervisors, who have had direct contact with young people for three months of internship.

The evaluation results are not very optimistic. For example, one of the cooperating major bank concluded inter alia that ¼ of the interns did not meet expectations in terms of the „soft skills“ (e.g., motivation, cooperation, commitment, initiative), and ⅓ of the interns did not meet expectations in terms of the substantive skills (e.g. substantive knowledge, software and knowledge). Identified gaps in the area of the „soft skills“ primarily concerned motivation to perform specified work, involvement in the duties performed, the initiative to take additional duties, communication skills, independence, time management and creativity. Gaps in the area of substantive competences are mainly the knowledge of relational databases, SQL, VBA, MS Office (especially in practical applications of Excel), the knowledge of banking products and general knowledge of banking.

On the basis of conducted research potential pluses and minuses of our interns can be formulated. The pros include among others very strong motivation and willingness to develop. The interns have a lot of new ideas and are effective in work related to new media. They often have unique skills in this area (design, graphics, programming on facebook), sometimes at a higher level than company's employees. They work quickly and are accustomed to the fast rhythm of life. They are flexible and can easily adjust to the circumstances. They have good computer and language skills, often at a higher level than the average in the company. The main minuses of the interns are:

— Occasionally they have stress-free attitude toward the work and the responsibilities. They tend to forget about their duties, perform them inaccurately or imprecisely. They should be instructed and taught about the difference between the studies environment and business environment, the latter being more demanding and requiring greater responsibility.

— High confidence. Students (especially 5-year year students) wish to be managers directly after graduation. It takes half-year to one year to teach them some humility.

— They are unable to see many business limitations. More practical classes at the University (like case studies, business games) would be advisable.

The proposals of activities that University can undertake in order to improve the students' and graduates’ preparedness developed by the employers are as follows:
Activities in the field of transferring practical knowledge on databases and the use SQL, or Access.

Broadening knowledge of Excel with special focus on advanced features and methods of data presentation.

Course in practical application of statistics in the company’s operations (data distributions analysis, forecasting on the basis of historical data), SAS, SPSS.

Workshops preparing students for entering the labour market, public performances and autopresentation trainings.

Negotiation and sales techniques workshops.

Workshops in developing group cooperation competences and skills.

Clearly employers are primarily focused on the practical preparation of future employees, which enables them to use specific software, and on the high level of “soft skills" resulting in efficient communication and group cooperation.

5. EVALUATION OF SECOND LEVEL STUDENTS’ KNOWLEDGE AND SKILLS

The Bologna process on the one hand introduced facilitations for young people who want to study and come from different countries or regions, on the other hand however it complicated quite heavily the process of second level studies. The problem lies in the regulations which give possibilities of accepting for the second level studies all persons who have completed undergraduate studies (first level), regardless of their major. The necessity to adjust universities’ rules of operation to the Bologna process results in situation where the second level studies candidates held Bachelor degrees in varied areas. This applies particularly to students undertaking part-time studies. In the case WUE, in order to enable effective studying complementary courses must be elaborated (for example in form of e-learning classes) in order to update the students’ knowledge in the fields of economy and management. Hence the idea of research on evaluation of knowledge and skills of students undertaking part-time second level studies, which was conducted within the frames of development projects. The research has two objectives: diagnosis of the knowledge and skills of persons starting the second level studies and diagnosis of the increase in knowledge and skills after the completion of the studies. In the academic year 2011/12 in order to standardize the questionnaire pilot survey was conducted among the students of the first year on all majors. From the current academic year all students undertaking part-time second level studies will be subject of the research. The pilot survey was conducted using face-to-face method, the following surveys will be carried out on-line.

The research is divided into three parts. The first and second parts are carried out in the beginning of the first year of study, the third part just before the graduation. The first part is anonymous, the two remaining parts are assigned to specific respondents. The first part results in the description of the characteristics of the student starting second level study. The students are asked, among other things, why have they chosen this University and what are their expectations. The analysis of results reveals what factors are especially valuable and important for our students, and which issues will determine the success of certain phase of the study (e.g., getting a good education and scientific title or acquiring an attractive job). The second and the third stage of the research focus on the level of knowledge and skills. The diagnosis of skills’ level concerns behavioural competences – i.e. “soft skills”. It gives the answer to the question how people should behave. We are examining, among others, the ability of work self organization, the ability first consider the detailed issues, and later to transfer the
conclusions to the company's specific situation and to see their references to larger concepts, the ability to make important decisions, the ability to cope with stress, motivation to work, ability to work in a team and to delegate tasks. The diagnosis of knowledge level concerns the level of technical competence - i.e. "hard skills". Responding It gives the answer to the question what people should know. Its purpose is to investigate the basic knowledge in certain fields. Thanks to the results from the second stage of the research we are able to identify individual's competence vulnerability and areas to make up for, as well as adequate to their situation compensatory courses. The third part of the research allows you to determine the increase in knowledge and skills.

6. THE EXAMINATION OF GRADUATES' PROFESSIONAL PATHS

The amendment of the Higher Education Act introduced in Poland in the year 2011 imposed upon the universities the obligation of monitoring the paths of the graduates. The overall aim of this action is the modification of curricula in order to meet the requirements of the current labour market and employers' expectations. The WEU began its activities in this area in 2011 within the frames of the development projects. The main objectives of the research are to investigate the graduates' professional careers, recognize the evaluation of education level and identify graduates' competence vulnerability.

The first telephone interviews (CATI) and targeted interviews (face to face and on-line) were scheduled in May and June 2012. Four respondents groups were defined: WEU graduates who have completed the studies in 2011 (all faculties, modes, levels, majors), WEU graduates who have completed the studies before 2011 (all faculties, modes, levels, majors), the WUE graduates' employers from Lower Silesia region and University's administration representatives. Using the funds from the development projects 10-stand CATI lab was fully equipped and 8 pollsters (our students or graduates) were trained. Their task was to survey nearly 3500 graduates from the year 2011. The first results are very promising. The respond rate is at 55%, and only 2% of respondents refused to participate in the survey. Gathered experiences helped to formulate first conclusions regarding the usefulness of the CATI method in this type of research. The pluses of the method are: low number of refusals, possibility of repeated contact with the same person, control over correctness of interviewing process, standardization of the manner of asking questions and the fact that the data is available during and immediately after the completion of the survey. The minuses include: the need to collect the phone numbers, the possibility of changing the number by the respondent, refusals to answer the calls from unknown number, and a limited number of questions and answers.

In order to obtain enhanced results qualitative research was used. Focused interviews were conducted on all four of the aforementioned respondents groups. So far we've carried out eight interviews with graduates (3 face-to-face, 5 on-line) given that they know what they are missing at work, two face-to-face interviews with employers, because they know what the graduates are missing, and one with representatives of the University administration, because they know what improvements are necessity at the University. The pros of FGI method include the opportunities for the graduates the return to the University, the opportunity to observe the non-verbal reactions, the possibility to explore the spontaneously emerging topics. The cons of the method are difficult recruitment and implementation (self expression, informational conformism), the necessity to transcribe the interviews, high costs due to the catering and distributed gadgets. However when OFGI is used, most of the weaknesses disappears and the groups are usually much easy to recruit, and in addition they are much more creative and open. Significantly more respondents declared willingness to participate in the on-line focused interviews (for 384 people 69% agreed only to this form of survey). The respondents pay
attention to the greater sense of anonymity, less stress and greater sense of satisfaction from their interview.

7. CONCLUSIONS

The 21st century poses large challenges before European societies. The rapid development of organizations and modern technologies causes fast expiration of the knowledge obtained during education years, which makes the process of learning even more difficult. In this view, the universities are forced to constantly monitor the effects of training and modify curricula adjusting them not only to current but to the future labour market needs as well. To meet this challenges the universities must broaden their cooperation with employers, in order to practically prepare their students for the expectations and requirements of the economy. Cooperation with business practice can offer mutual benefits, but before this happens, both sides must be convince to the cooperation and develop a model of cooperation/agreement. In order to develop models of cooperation with the employers Polish universities broadly benefit from ESF. The possible forms of activities give hope that in few years the system of cooperation with employers will be broad and effective. An important element in the evaluation of the education quality is examination of graduates’ professional paths, which in Poland since 2011 is one of the statutory duties of the university. Presented in the article proposals of the solutions adopted in the WEU indicate qualitative changes in Polish higher education. The ability to use different sources of information and regular research allow to permanently monitor, and thus quickly adapt the forms of support to the identified needs and problems.

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Part of the study was conducted in the framework of the research project entitled Rate of return measurement methods in higher education (Metody pomiaru stopy zwrótu z inwestycji na edukację w szkołach wyższych). The project has been financed by the National Science Centre on the basis of decision no. DEC-2011/01/B/HS4/02328.