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Improving Graduate Employability through Internship Programs

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Abstract

A mismatch between qualifications and skills demanded and supplied is one of the main problems in the labor market. It concerns also higher education graduates. They have the theoretical background, however their abilities to apply knowledge in a work situation are insufficient. The main aim of this paper is to present the contribution of the internship program to the employability of graduates of University of Bielsko-Biala. The paper consists of three parts. The first describes changes in unemployment by educational background in the Bielsko-Biała labor market in 2010–2015. The second part includes employment prospects for graduates, with a special focus on the benefits of the internship program. The final part emphasizes the role of cooperation between the university and employers to ensure better preparation of graduates for the labor market. The paper was based on available statistical data on unemployment in the Bielsko-Biała labor market, and on the results of the surveys among employer representatives and students who participated in the internship programs within two European projects realized in University of Bielsko-Biala over 2010–2015. The research confirmed that a lack of experience reduces the chances of graduates to obtain suitable employment. Moreover, research findings proved that the internship program, developed and implemented in close cooperation with local companies, may increase employment opportunities after graduation. There is, therefore, a clear need for further cooperation between education and business in order to facilitate the transition of graduates from education to employment, as well as to satisfy labor market needs.

Keywords: labor market, graduates, unemployment, employability, internship program

JEL: J24, J64

Introduction

Results of *Study of Human Capital in Poland…* (Czarnik et al. 2014) indicated that, in 2012, educational background and professional experience were the most important recruitment criteria in job offers addressed to candidates for engineer and specialist positions (Górniak 2013, 61). Moreover, in the years 2010–2014, about three-quarters of employers in Poland had problems with hiring new employees (Górniak 2015, 17). The main reasons were lack of experience, inadequate competences and poor motivation to work. Therefore, the challenge for the education systems is to equip young people with the skills relevant to demands and challenges of the labor market, and changing economic environment. Apart from formal degree qualifications, employability skills should be developed.

The employability of an individual is understood as a composition of many factors, including educational background, work and life experience, behavior, motivation and other personal attributes. All them joined together create the capacity of an individual to find a job, maintain employment and be able to move through the changing world of working (Weinert et al. 2001, 52). Therefore, employability is important at any career stage because it helps: firstly, to get the first job, secondly, to maintain employment and develop a career, and thirdly, to obtain further employment if necessary. However, employability depends not only on individual's competences. It is seen as a more complex and multifaceted issue (Perez, Garrouste, and Kozovska 2010, 294).

Opportunities for being employed are also determined by external factors, including labor market conditions and the general economic situation.

The contribution of the education system to employability is essential (Perez, Garrouste, and Kozovska 2010, 293), in particular, at the initial stage of a career. Enhancing graduate employability is one of the key demands for the education system at each level, including higher education. Higher graduate employability is the key issue of the Bologna Process. One of its main priorities for 2012–2018 is to foster the employability of graduates.[1] Universities should equip young people with knowledge and skills needed in the workplace, as well as activate and promote their employability. They should implement programs with a balance between theoretical and practical elements. Employability skills enable graduates to enter the labor market, and then adopt to the changing circumstances of the working world. The continual adaptation is a key demand for employees over their entire career (Schneider and Otto 2009, 118). Therefore, the demands from government, employers and students put continued pressures on higher education institutions to prepare graduates for the needs of the labor market (Tomlinson 2012). Employability of graduates is regarded as a measure of the quality of education (Kraśniewski 2009, 22). Zulauf states that employability skills must be embedded in the curricula and systematically verified (quoted in Silva, Lourtie, and Aires 2013).

The main aim of this paper is to present the contribution of the internship program to employability of graduates of University of Bielsko-Biala. For this purpose the analysis of available statistical data on unemployment and questionnaire study were carried out. The analysis aimed at describing the changes in unemployment by educational background in the Bielsko-Biała labor market over 2000–2015. Empirical studies focused on examining the opinions of students of University of Bielsko-Biala, as well as local employer representatives on: firstly, employment prospects, and secondly, the benefits of the internship programs as contributing to graduate employability.

1 Unemployment by educational background in the Bielsko-Biała labor market in 2000–2015

A mismatch between skills demand and supply may be a source of various socio-economic problems, including poor productivity, underemployment, overstaffing, underpayment, job insecurity and unemployment. Unemployment refers to any population, regardless of sex, age or educational background. In recent times, however, it has largely affected people with higher education degrees. At the end of December 2015, in Bielsko-Biała, the percentage of unemployed persons with higher education was 17,03%, compared to 13,07% in the Śląskie Voivodship.[2] In the period of 2000–2015, in Bielsko-Biała, the number of unemployed university graduates doubled (from 346 to 755), and the percentage of this population in the total unemployment increased almost fourfold (from 4,44% to 17,03%). It can be noticed that between 2000 and 2015, in Bielsko-Biała, the share of the unemployed who completed higher education increased by 12,59 percentage points. At the same time, the share of unemployed with basic vocational school dropped 13,09 percentage points.

Since 2001, the total number of the unemployed was systematically decreasing year by year, with some exceptions, particularly between 2008 and 2009, when unemployment grew by almost 24%. From 2000 until the end of 2015 the number of the unemployed declined at an average rate of 3,69%. In turn, over the same period, among the unemployed with higher education, the annual growth rate averaged 5,34%. Starting in 2000, the considerable increase of well-educated unemployed was associated with the "educational boom" which began in the mid-1990s. Their situation in the labor market improved after 2004 due to the positive growth of the economy, as well as

1. See: Komunikat Erywański. EHEA Minjsterial Conference Yerevan 2015. [@:] http://www.nauka.gov.pl/g2/oryginal/2016_02/c6210f4c9ae49b3f673d8b7d94da5880.pdf.

2. Data published by Wojewódzki Urząd Pracy w Katowicach, on 30 June 2015, [@:] http://wupkatowice.praca.gov.pl/-/889318-liczba-bezrobotnych-w-ukladzie-gmin-oraz-wskazniki-bezrobocie-rejestrowane-i-obciazenie-bezrobociem-w-ukladzie-gmin.

[In the journal European Practice of number notation is followed—for example, 36 333,33 (European style) = 36 333.33 (Canadian style) = 36,333.33 (US and British style).—Ed.]

Tab. 1. Unemployment by educational level in Bielsko-Biała (in 2000 and 2015, as at the end of December)

	Higher		Vocational secondary and post-secondary		General secondary		Basic vocational		Lower-secondary	
Year	***n***	%	***n***	%	***n***	%	***n***	%	***n***	%
2000	346	4,44	1828	23,46	603	7,74	3034	38,94	1981	25,42
2015	755	17,03	1003	22,63	400	9,02	1146	25,85	1129	25,47

Source: Own study based on the data published by PUP in Bielsko-Biała and WUP in Katowice

Tab. 2. Changes in unemployment in Bielsko-Biała (2000–2015, as at the end of December)

	Unemployed with higher education				Unemployed in total			
Year	**Number**	**Absolute change**	**Relative change (in %)**	**Dynamics**	**Number**	**Absolute change**	**Relative change (in %)**	**Dynamics**
2000	346	–	–	–	7 792	–	–	–
2001	473	127	36,71	1,37	9 770	1 978	25,39	1,25
2002	530	57	12,05	1,12	9 497	−273	−2,79	0,97
2003	597	67	12,64	1,13	9 191	−306	−3,22	0,97
2004	662	65	10,89	1,11	8 707	−484	−5,27	0,95
2005	624	−38	−5,74	0,94	8 111	−596	−6,85	0,93
2006	606	−18	−2,88	0,97	6 503	−1 608	−19,82	0,80
2007	483	−123	−20,30	0,80	4 789	−1 714	−26,36	0,74
2008	592	109	22,57	1,23	4 431	−358	−7,48	0,93
2009	829	237	40,03	1,40	5 466	1 035	23,36	1,23
2010	878	49	5,91	1,06	5 720	254	4,65	1,05
2011	955	77	8,77	1,09	6 011	291	5,09	1,05
2012	1 058	103	10,79	1,11	6 564	553	9,20	1,09
2013	1 067	9	0,85	1,01	6 277	−287	−4,37	0,96
2014	865	−202	−18,93	0,81	5 216	−1 061	−16,90	0,83
2015	755	−110	−12,72	0,87	4 433	−783	−15,01	0,85
	Mean annual growth rate (in %)							
	5,34				*−3,69*			

Source: Own study based on the data published by PUP in Bielsko-Biała and WUP in Katowice

opening of the EU borders, until the end of 2008 and 2009, when economic crisis caused the sharp rise of unemployment. However, over the last two years of the period in question, the absolute and relative changes were negative, which meant the drop in unemployment, partly caused by the decreasing number of graduates.

At present, the number of students is lower than a decade or more ago due to the demographic decline, however many people are still undertaking studies. In 2014, the gross enrollment ratio in higher education in Poland was 49,2%, compared to 12,9% in 1990.[3] The high number of students and graduates can be regarded as a positive factor for economic and cultural growth, but only if the numbers translate into a high quality of education. Therefore, the question here is whether graduates are well prepared to take up professional work.

3. See: Report „Polskie szkolnictwo wyższe a potrzeby rynku pracy" by Bartłomiej Kaszyk, Sebastian Kluczyński, Karol Michał Kobyliński, Aleksander Olechnowicz, Anna Palak, Karol Serena. Think Paga! Akademia Analiz i Mediów, 14 April 2015, [@:] http://paga.org.pl/upload/source/Think_Paga/RAPORTY/Raport_Polskie_szkolnictwo_wy%C5%BCsze_a_potrzeby_rynku_pracy_14_04_2015.pdf.

2 Contribution of the internship program to better employability of students and graduates of University of Bielsko-Biala

2.1 About projects realized in University of Bielsko-Biala

As a part of the governmental programs promoting engineering education in key areas of the economy, in the years 2010–2015, two projects co-financed by the European Union under the Ministry of Science and Higher Education support were successfully realized in University of Bielsko-Biala. These projects were:

- "An Engineer of the XXI Century" 4 addressed to students of the Faculty of Mechanical Engineering and Computer Science, and
- "ATH connects — the road to a common goal — knowledge-based economy"[5] aimed at students and graduates of two faculties: Management and Transport, and Mechanical Engineering and Computer Science.

One of the main components of these projects was the internship program. It consisted of monthly and three-month paid internships for 340 students. The fundamental objective of the program was to help young people to improve specialist knowledge and gain practical skills in the workplace. The intention of the program was to ensure a close link between a work placement and a student's field of study and specialization. A broad cooperation between the university and leading regional enterprises was developed and strengthened in order to support the program's objectives.

Students who participated in the internship program, as well as their mentors in companies and other business representatives (both hereinafter referred to as "employer representatives") were invited to take part in the surveys. Two questionnaires were prepared: one for students and the second for employer representatives. They consisted of about 20 questions of one or multiple choice. The questionnaire addressed to trainees was aimed at recognizing their perceptions on the opportunities and threats of the entry into the labor market. In turn, the second questionnaire was to collect opinions of employer representatives on graduate competences and their suggestions on the improvement of curricula. Both questionnaires were to assess the internship program and resulting benefits for trainees and companies. In total, 184 students (40% of whom were women) and 154 employer representatives filled in the questionnaires. Among students, the largest age group was 24 years or under (83% of the total respondents), while others were aged 24–35. Employer representatives were from companies of various sectors, including the automotive, machine and electrical industries, IT, transportation, construction, trade and repairs. More than half of these respondents (58%) were from large enterprises.

2.2 Job opportunities and threats for graduates

To identify what opportunities and threats associated with entering the labor market are perceived by young people, the trainees were asked about their chances of being employed, and about their preparation for future professional work. The majority of surveyed students (67,95%) assessed their chances as comparable to other graduates, while 3,26% of them as higher, and 12,50% as smaller. The remaining respondents had no opinion on this issue. The most important factors regarded by surveyed students as having a great impact on successful employment are shown in figure 1. More than three quarters of trainees viewed a professional experience as the key factor to obtain employment. Therefore, the chances for graduates to be employed are smaller due to the lack of experience or insufficient practical skills. It is consistent with the widespread view that education is important but it doesn't guarantee getting a good job. Students realize that theoretical knowledge is essential, however not enough to cope with day-to-day business tasks and responsibilities, to communicate and cooperate with others.

The second important factor leading to successful employment was, according to students' opinions, the personal contact network. Nearly half of those surveyed viewed it as valuable for

4. "Inżynier na miarę XXI wieku" — more about the project at http://www.inzynier.ath.eu/.

5. "ATH łączy. Droga do wspólnego celu — gospodarki opartej na wiedzy" — more about the project at http://www.athlaczy.ath.bielsko.pl/.

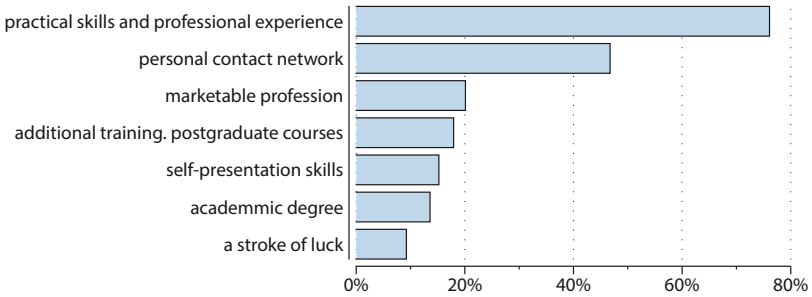

Fig. 1. Key factors influencing finding a job — in the opinion of students ($N = 184$)

employment opportunities. In fact, personal contacts with employees, employers, staffing agencies, career centers and others may be a valuable source of information about employment prospects. Recommendation by others may really increase the chance of being offered and accepted for a position in a company. Recommendation seems to be an effective recruiting tool and to have positive impact on successful employment. A candidate gets insight about an offered job and organization, and an employer may find out more about a potential employee.

In order to gain work experience and improve employability skills, many students take up work while studying. There are lots of possibilities of acquiring experience by students, particularly in vacation time. Students who participated in the internship program were asked about the actions they took to improve their employability. Almost 80% of surveyed students confirmed their work experiences. Furthermore, the answers showed that the most popular forms of gaining experience by full-time students were order contracts and contracts for specific work (61,90%), vocational training and internships (48,30%), and part-time jobs (27,89%). It is particularly worrying that about 20% of surveyed trainees stated that they took undeclared work in the black economy, and, in that way they gathered experience. Illegal work is common in each economy but it is a serious problem, mainly due to the lack of insurance against accidents and due to low pay.

Professional experience should be built up through activities associated with the field of study. Unfortunately, it is not easy to find a relevant job. That is why only two out of three students

Tab. 3. SWOT analysis for graduates in the Bielsko-Biała region

STRENGTHS	WEAKNESSES
• good general computer skills • good cooperation with others • good communication skills • eager to learn • self-determination and self-esteem • flexibility • good self-presentation skills • responsibility	• lack of work experience • poor practical skills • insufficient foreign language skills (especially in professional terminology) • poor leadership • low creativity • insufficient knowledge of professional computer programs
OPPORTUNITIES	**THREATS**
• favorable trends in the economy of the Bielsko-Biała region • broad spectrum of employment (industrial, service, trading companies) • demand for well-educated engineers and specialists • training and internship opportunities co-financed by the European Social Fund • opportunities to participate in Erasmus+ Program and improve language skills • variety of offered degree courses and specializations in University of Bielsko-Biala • demographic crisis (the decreasing number of graduates)	• a high number of graduates of other universities • higher and higher qualification requirements from employers • companies don't want to hire fresh graduates • high share of the unemployed with higher education in the Bielsko-Biała region • job insecurity • difficulties to find good employment in some professions (especially other than engineers)

improved their practical skills in the workplaces which were closely related to their field of study. However, above 80% of those surveyed who worked previously admitted that regardless of the type of work performed, the knowledge and skills acquired during studies were useful in their work. Main problems and prospects associated with the entry of graduates into the labor market are summarized in table 3. Strengths and weaknesses are based on the opinions of employer representatives. Opportunities and threats are formulated on the basis of own author's observations and the results of previous surveys (Baron-Puda and Kłóska 2010). Replies of employer representatives confirmed students' concerns about employment prospects. The lack of experience and insufficient practical skills may really decrease the competitiveness of young people in the labor market. However, employer representatives appreciated interpersonal skills of students and graduates of University of Bielsko-Biala. To conclude, the results of surveys outlined the overall profile of a graduate who despite insufficient professional skills and experience is highly motivated to work and able to cooperate well with others.

2.3 Benefits of the internship program

Today, young people enter the labor market at a difficult time. Employers have high requirements and expectations, particularly regarding work experience. Therefore, universities should equip young people with practical skills and help them with the process of gathering professional experience. The internship program gives the opportunity to enhance employability of young people and contribute to their successful employment. Work experience obtained through participation in the internship program may improve employability skills, but not only. A number of positives outcomes were highlighted by both students and employer representatives table 4). The most important was to give the young an opportunity to develop practical skills in workplaces. Trainees had a chance to test different workplaces and present themselves as a potential candidate for regular employment. This, in turn, could save time and cost related to the recruitment of new employees to the company. And what is most important, for a significant number of students the internship was the initial step for further employment in the related company. Both students and employer representatives agreed that it was a valuable initiative and should be continued. Two thirds of surveyed representatives of employers declared their intention to continue the cooperation with the internship program.

Tab. 4. Benefits of the internship program — answer percentage of employer representatives ($N = 154$) and students ($N = 184$)

	According to employer representatives	According to students
Benefits for a trainee:		
• Opportunity to improve practical skills	64,94	55,43
• Possibility to use the theoretical background in a workplace	61,04	43,37
• Opportunity to demonstrate own potential and obtain employment	44,16	34,94
• Higher competiveness in the labor market	36,36	31,93
• Improved self-management (e.g., self-discipline, independence, planning and organizing)	28,57	7,61
Benefits for an organization:		
• Trainees assist a company in day-to-day tasks	79,87	60,33
• Opportunity to verify competences of a trainee as a candidate for further employment	52,60	28,26
• Good preparation and introduction of a trainee to further employment	36,36	19,57
• Saving time and money related to recruitment process	28,57	13,04
• Young people bring a fresh view and creativity	25,32	22,83

Furthermore, those surveyed believed that the internship program will be effective for the labor market. Almost the same percentage of trainees and employer representatives (respectively 92,93% and 91,56%) perceived it as an important factor that may contribute to decreasing the unemployment rate among graduates. The surveyed students assessed positively the internship program from the viewpoint of improving their competencies. During the assessment, they used a three-point rating scale ("very good," "average," "poor"). Nearly two thirds of those surveyed gave "very good" marks, and every fourth student — "average" mark. The remaining respondents (10,87%) were not able to provide an answer. In addition, three quarters of the surveyed students expressed a desire to continue working in the companies in question.

3 Further efforts to promote graduate employability

In order to promote graduate employability the fields of study and offered specializations should correspond to expectations and needs of employers. For this purpose, higher education institutions should be strongly engaged in socio-economic environment. The close cooperation between educational institutions and business units is desired to ensure better employability of graduates. Competitiveness of companies depends on competences of employees. At present, many employers encounter problems with recruiting new personnel due to skills mismatch. Staffing problems result in vacancies, overtime work, higher costs of training new staff, lower productivity of newly employed, etc. Involvement of employers in the education process may contribute to better matching of young people's competences to business needs. The participation of employers in developing and promoting graduate employability is of major importance, particularly in the context of an "employee market."

The cooperation between universities and local business units may be practiced in various ways. The results of the surveys showed that the participation of employers in development and implementation of the internship programs is a good practice, and should be continued and extended. A valuable approach could be to involve experts and practitioners in preparation and implementation of curricula. Lectures or seminars given by practical experts would be useful to familiarize young people with their future work in companies. Furthermore, the studies aimed at collecting information on professions and skills required by employers should be carried out. They enable forecasts of trends in qualifications and skills demanded in the labor market.

Employer representatives were asked to give suggestions on how to improve curricula, in particular as regards the contents and teaching methods. In their opinion, the most important elements that should be considered in the curricula are:

- to provide students with more practical examples in order to give them better understanding of a theory in practical application (70,78%)
- to put the emphasis on independent and critical thinking (59,09%)
- to develop problem solving skills (52,60%)
- to promote teamwork (36,37%)
- to stimulate creative thinking (33,12%)
- to give students the strong theoretical backgrounds associated with the field of study (21,43%)

The emphasis on the above skills may suggest that autonomy and self-management at work are the essential elements of the personnel policy in many of today's companies.

Conclusions

The number of higher education graduates increased significantly over the last 15 years. This is, without doubt, a good trend because a better educational level contributes to better employability. At the same time, there is particular concern about a comparatively large share of the unemployed with higher education. There are various reasons for this, however one of them is related to the mismatch between skills demand and supply. Qualifications and skills of candidates don't always correspond to employers' requirements. Looking for job candidates employers value, in particular, the educational background and work experience. The results of the surveys showed that students

are aware of this fact. The main concern of young people is the lack of experience. To increase employment opportunities the majority of students try to combine studies with different types of work, such as contract work, temporary and part-time work. Unfortunately, such jobs are not always in line with the fields of study.

To enhance employment chances of graduates the education system must provide a good theoretical background and practical skills, as well as deliver opportunities to activate and promote student employability. The curricula and learning strategies must be tailored to changing needs of employers. The empirical research showed that studies should have a more practical character and provide better job and skills matching. Lectures and workshops based on practical examples and solutions may help students to transform the academic knowledge into practical actions. The practical aspect of courses and degree curricula should be enhanced through work placements and internships, with the particular emphasis on their quality and close links with the field of study. The results of the surveys confirmed the great importance and various benefits of internships, both for trainees and companies. Well-developed internship programs based on close cooperation between the university and employers may really contribute to better graduate employability. Quality work placements provide students with a valuable opportunity to gain the initial experience in workplaces. Students have a chance to get advanced skills that they are not able to get through formal education. For a company the internship may be regarded as the first stage of recruitment.

The principal added value of the internship program are improved practical skills and enhanced employability. However, it seems essential to strengthen and extend the cooperation between the university and business entities to make higher education more relevant to labor market needs.

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