

HUMAN CAPITAL OF TERTIARY GRADUATES IN THE CONTEXT OF THEIR EMPLOYABILITY IN THE LABOUR MARKET OF LUBELSKIE PROVINCE

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Abstract: When enrolling at university, student candidates assume that by the time they graduate, they will have acquired competencies that significantly improve their future employability. It is therefore worth verifying whether the human capital developed by students in the course of their studies really does facilitate better employment. The aim of the article is to identify the key elements of the human capital of tertiary graduates in the context of their employability. The analysis will utilise data collected in the course of a study conducted in 2017 by the provincial Labour Office in Lublin and covering 1,375 cases of Lublin university graduates residing and employed within Lubelskie province. The respondents indicated human capital elements such as education, experience, skills, and personal attributes as those that significantly influenced their employability. The study revealed that the greatest barrier to good employment is the lack or insufficiency of professional experience. In turn, the greatest advantages, significant in terms of professional activity, include the following personal and practical skills: diligence and accuracy, self-reliance, work organisation, communication skills, resilience to stress, and engagement. The respondents also mentioned the importance of availability and readiness to improve the already possessed qualifications.

Keywords: human capital, employability, labour market, tertiary education.

1. Introduction

The significance of competencies possessed in the context of labour market success has been on a steady increase in recent years (Marszałek, 2012). This is evidenced by the fact that an individual's human capital now determines the competitive edge they may or may not enjoy when seeking employment. Furthermore, human capital is recognized as the greatest source of value for companies (Sienkiewicz, 2013; Ciekawski, 2014). Hence, it can be concluded that both individual professional careers and organisational success are to a considerable extent dependent on the attributes and abilities of people.

People enrolling at universities do so in the hope of developing their human capital by gaining knowledge, skills and experience that will later facilitate their employability. The process of developing employability is contributed to by three types of agents: universities, employers, and students – the soon-to-be graduates. One can observe certain structural inconsistencies in this context that are natural for developing economies undergoing structural reforms (Rutkowi, 2008). One should point out two key factors limiting the employability of university graduates. Firstly, there is a discrepancy between the supply of graduates and the job market demand (Balcerowicz-Szkutnik, et al., 2017). The Polish market is characterised by an over-representation of tertiary graduates relative to the available compatible employment opportunities in the market (Wronowska, 2015). Secondly, there is a discrepancy between the expectations regarding the qualifications and competencies of university graduates as reported by employers, relative to those actually gained in the course of tertiary education (Macioł, 2012).

Employability is dependent on a variety of factors, chief among which is human capital. A question therefore arises as to the degree to which university education actually improves the graduates' human capital vis-à-vis the demands of the labour market. The aim of this article is to identify elements of tertiary graduates' human capital important in the context of their employability, on the basis of which recommendations for universities can be proposed with regard to those human capital elements that ought to be developed in the course of tertiary education in order to improve the employability of future university graduates.

2. Human capital

The interest in human capital has continued to grow since the 1960s, when G.B. Becker, J. Mincer, and T.W. Schultz first introduced the concept into economic deliberations as a factor affecting production (Wieczorek-Szymańska, 2010; Potelienė, and Tamašauskienė, 2014). Human capital theory was focused on the role of education and training in the labour market. The main idea was to assume that individuals make investments in education and training in order to gain a set of skills that may be valuable for employers. That means education and training improve productivity and finally individuals' earnings. The authors of human capital theory indicated the need for investment in all types and levels of education, including university (Suleman, 2017). The idea that investment in education has extended economic and social profits for the individual and society was known much earlier. Adam Smith (2007) was the first to ascertain individual skills, abilities, and personal knowledge as valuable qualities of people in relation to their economic activities (Potelienė, and Tamašauskienė, 2014).

In Poland, similarly to other eastern and central European countries, the concept of human capital was first introduced only after the collapse of communism, i.e. at the turn of the 1990s. (Szopik-Depczyńska, and Korzeniewicz, 2011).

The literature provides numerous definitions attempting to specify the exact nature of human capital. They focus primarily on the attributes and qualities displayed by an individual. Additionally, the age and sex of the employee are also considered as factors (Rakowska et. al., 2018).

Becker (1964) defined human capital as the stock of knowledge, skills and abilities contained in an individual from natural endowment and subsequent investment in education, training and experience. Potelienė and Tamašauskienė (2014, p. 43) considered that human capital is “the ability of an individual to generate income by having a certain skillset or knowledge, or as the knowledge, skills, and experience of people that make them economically productive”.

Pocztowski (2008, p. 41) understands human capital as “the overall set of attributes and characteristics embodied by people (knowledge, skills, abilities, health, motivation, values) that have an intrinsic value and constitute a potential source of income for both the employee-owner of the human capital, and the organisation taking advantage of the same under certain circumstances”. Król (2006, p. 97) offers a similar definition of human capital, namely as “the sum total of particular attributes and qualities embodied by an employee which possess a certain value and constitute the source of future income for both the employee – owner of the human capital and the organisation that takes advantage of the same under certain circumstances”. Both authors emphasise the fact that an individual is the owner of the human capital, which possesses a specific value and can be beneficial to both the owner and the organisation.

In turn, Blaug (1995) emphasises the dynamic character of human capital, meaning that it is not constant, its value can fluctuate, and therefore it needs to be constantly developed. The author understands human capital as “a resource of knowledge and skills with a certain inherent value that provides the basis for future income or satisfaction, a fully renewable and continuously developed human potential” (Blaug, 1995, p. 303).

Higher education is a basic form of investment in the development of human capital. Higher education can be considered as a high level or a specialized form of human capital, above and beyond the contribution to economic development, which is extremely important. Education brings very important benefits for individuals as well as society. It has a crucial impact on earnings and labour market outcomes. Investment in education also provides non-monetary profits, for example, it improves the quality of life (Potelienė, and Tamašauskienė, 2014).

The private return from education is a fundamental incentive for individuals to invest in their higher education. This indicator expresses revenues as a percentage return on the investment. The private return from education pertains only to individual investments in post

compulsory education; the indicator ignores government expenditure (Potelienė, and Tamašauskienė, 2014).

It turns out that the level of the private return from education is different for individual countries. Potelienė, and Tamašauskienė (2014), based on OECD data from 2009, calculated that of 22 European countries, the highest indicators of the returns on investment in human capital are in Poland, Hungary, Estonia and the Slovak Republic. This means that investment in education is very effective in these countries. Additionally, based on data from Eurostat from 2010, researchers showed that the average indicated wage for people with higher education in Poland is 66.2% higher than that of individuals who have acquired only secondary education.

3. Employability

The problem of employability has been discussed since the early 20th c., and the concept has evolved considerably over that period. Currently, employability tends to be approached holistically by taking into consideration various internal and external factors related to the given person, as well as any relationships occurring between said factors (Wojdyło-Preisner, 2012; Wiśniewska, 2015). Additionally, employability could be considered from three perspectives: as the national workforce level, the human resource management level, and the individual level (Rothwell et. al., 2009; Pouratashi, 2019). Consequently, the literature fails to provide a single, universally accepted definition of employability (McQuaid, and Lindsay, 2005; Harvey, 2001).

One concise definition was proposed by Pool and Swell (2007, p. 279), who understand employability as “Having a set of skills, knowledge and personal attributes that make a person more likely to secure, and be successful in their chosen occupation”. Therefore, the authors emphasise the ability to display the specific human capital in the context of working in a given profession. In turn, Hillage and Pollard (1998, p. 2) posit that “For the individual, employability depends on the knowledge, skills and attitudes they possess, the way they use those assets and present them to employers and the context (e.g. personal circumstances and labour market environment) within which they seek work”. They therefore observe that the value of given human capital depends on the ability to evidence the same as well as a variety of external factors.

In terms of tertiary graduates, one should also consider the definition proposed by Yorke and Knight (2006, p. 3), according to which employability refers to “a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy”. An even broader definition was provided in the Council conclusions of 11 May 2012 on the employability of graduates from education and training, which state that “employability — that is, the combination of factors which enable

individuals to progress towards or enter employment, to stay in employment and to progress during their career — is a complex concept, involving not only each individual's characteristics, skills, attitudes and motivation, but also other external factors which lie beyond the scope of education and training policy, such as labour market regulations, demography, the structure of the economy and the overall economic situation”.

The term “perceived employability”, which is conceptualized as “individuals’ evaluations of their employment chances in both the internal (i.e. within the current organization) and external labour market (i.e. beyond the boundaries of the current organization)” should be noted (Houben et. al., 2019, p. 2).

To recapitulate the afore-mentioned definitions of employability, it can be observed that its key element is constituted by human capital, whose level determines one’s ability to find and maintain employment in the context of given external factors.

4. Research into the employability of tertiary graduates

In recent years the policy debate which refers to the relationships between higher education and the labour market has focused on the need to foster graduates’ employability. Pressures are put on higher education to equip future employees with the right skills for economic and labour market imperatives. According to Suleman (2017), the employability of graduates for this reason is becoming a new institutional mission of higher education.

The number of tertiary graduates is increasing in the European Union. Speaking of the employability of graduates, it should be noted that the Europe 2020 strategy (2010) assumed the growth of the population aged 30-34 having completed tertiary education from 31% to at least 40%. Based on data from Eurostat from 2018, it can be concluded that the average quantity of graduates in the European Union was 40.7%, and 18 of the Member States had figures above this average. It should be noted that the highest average of tertiary graduates aged between 30-34 were in Lithuania, Cyprus, Ireland and Luxemburg (Figure 1).

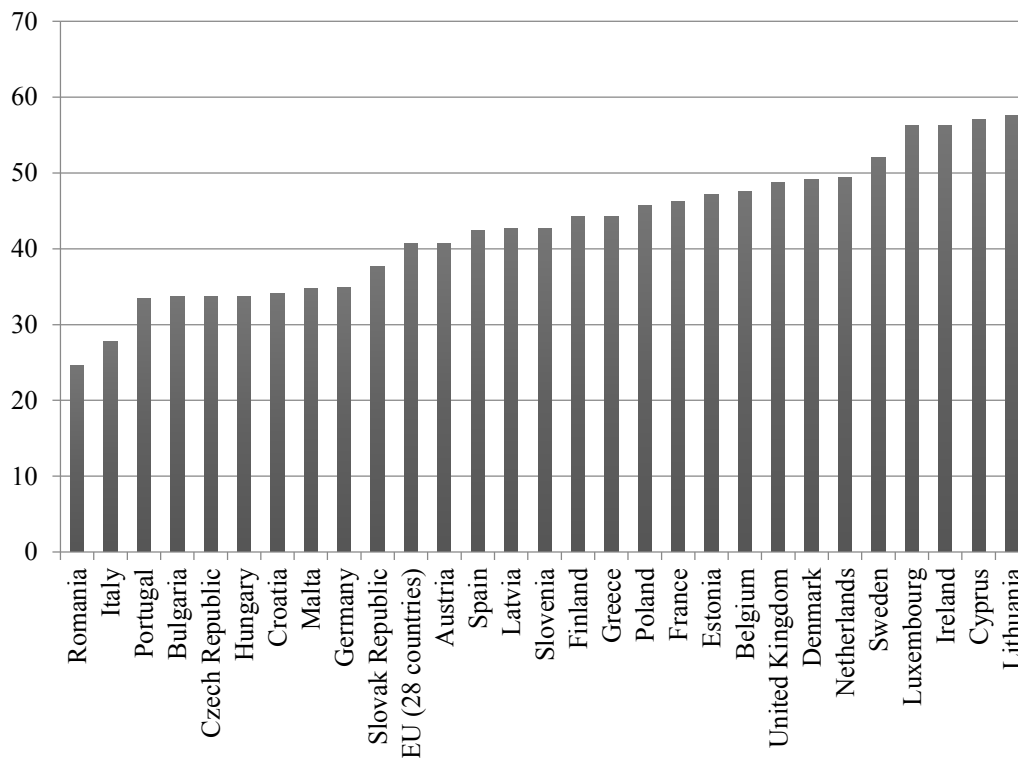


Figure 1. Tertiary educational attainment in the age group 30-34 (data in %). Source: based on the data of Eurostat, <https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tesem030&plugin=1>, November 26, 2019.

Studies pertaining to the career paths of tertiary graduates in Poland have been developed primarily due to the statutory requirement imposed on universities with respect to monitoring the professional progress of graduates, which came into force on 1 October 2011 (Act of 18 March 2011). Prior to the introduction of this obligation, only 33.3% of Polish universities conducted studies of this kind (Dziewulak, et al., 2014). As the studies were carried out independently by each individual university, they varied significantly in terms of the methodologies employed, which greatly hindered any comparative analyses (Pacuska, 2014).

The statutory change introduced in 1 October 2014 (Act of 11 July 2014) entrusted the minister responsible for higher education with monitoring the professional careers of graduates based on information provided by universities (currently via The Integrated System of Information on Science and Higher Education – POL-on) and the Social Insurance Institution (ZUS). The data gathered by the Minister have been published since 2016 via the national system of monitoring the economic vicissitudes of graduates (ELA), available at <https://ela.nauka.gov.pl>.

Although the ELA system is currently the largest available source of information on the post-university careers of tertiary graduates in Poland, it is not without certain limitations. Firstly, the data processed by the system are limited mainly to the scope of economics. Secondly, the data utilised by the system are gathered as part of the administrative tasks of the institutions managing the same data, and are therefore not adapted to research purposes.

Thirdly, information obtained from administrative registers does not include feedback from the graduates themselves or their employers (Information materials on...). The problems, limitations and advantages inherent in studies based on administrative registers have been broadly discussed by Jasiński et al. (2015).

The limitations of the ELA system necessitate additional research to be conducted on the career paths of tertiary graduates. Furthermore, the changes observed in the labour market and the related evolution of requirements applicable to potential future employees mean that such research should be carried out on a continuous basis. Despite the introduction of the ELA system, many universities elect to conduct independent studies into these issues, mainly through collaboration with careers offices. The professional advancement of university graduates is also monitored by Provincial Labour Offices, as well as the Central Statistical Office.

When analysing the results of Polish studies focusing on the career paths of tertiary graduates one can observe that they are conducted relatively rarely given the context of managing the human capital of graduates.

5. Human capital of tertiary graduates relative to employability

In order to identify the key elements of human capital that influence the employability of graduates, we used the data gathered in the study on “Professional Careers of Tertiary Graduates in Lublin Province” (Gach, and Krzesiński, 2017) conducted in 2017 by the Provincial Labour Office in Lublin. The study utilised the technique of CAWI (Computer Assisted Web-based Interview).

For the purposes of the article, a targeted selection was performed by choosing 1,375 cases out of 1,865 entries available in the database, based on the following criteria: graduation from a university in Lublin, residence in Lublin Province, and being employed. The most numerous group was composed of graduates from social studies faculties (53.8%), followed by natural sciences (15.6%), humanities and arts (9.5%), engineering and technical sciences (8.8%), medical and health sciences (6.5%), and agricultural sciences (5.8%). A vast majority of the respondents were graduates from second-cycle programmes or full-time master’s level programmes (88.8%), with nearly one in ten having graduated from first cycle programmes (11.2%).

For the purposes of this article, the following elements of human capital were taken into consideration: education, experience, skills, and personal attributes. Three research questions were posed. Firstly, whether graduates are or have been employed in positions consistent with the direction of their university education. Secondly, how many of the students gained actual professional experience during their studies, and in what form. And finally, what skills and personal attributes of the graduates had an influence on their employability.

Graduation from a higher education institution is, but general assumption, an important factor determining future employability. One in three of the respondents never practiced or do not currently practice their acquired profession (Table 1). Nonetheless, graduates from the following fields of study were the most likely to practice or have practiced their acquired profession: medicine and dentistry (88.6%); architecture and construction (86.1%); biology and chemistry (82.1%); nursing, physiotherapy and pharmacy (80.8%). Naturally, one has to remember that the ability to find employment in ones acquired profession may depend on the specificity of the field of study, one's personal attributes and skills, as well as the current market demand.

Table 1.
Practising the profession acquired in the course of studies

Field of studies	Practising the acquired profession	
	No	Yes
Medicine and Dentistry	11.4%	88.6%
Architecture and Construction	13.9%	86.1%
Biology and Chemistry	17.9%	82.1%
Nursing, Physiotherapy and Pharmacy	19.2%	80.8%
Transport and Logistics	20.8%	79.2%
Veterinary and Zootechnics	21.6%	78.4%
Psychology	21.7%	78.3%
Economics and Finance	25.0%	75.0%
Sports and Beauty	25.0%	75.0%
Law	26.1%	73.9%
Information Technology	29.4%	70.6%
Administration and Management	31.2%	68.8%
Technology and Mechanics	35.3%	64.7%
Journalism and Information	36.4%	63.6%
Mathematics and Physics	39.3%	60.7%
Education and Social Services	39.4%	60.6%
Humanities	40.5%	59.5%
Geography and Tourism	41.3%	58.7%
Agriculture, Horticulture, Forestry, and Fishery	41.9%	58.1%
Social Sciences	44.5%	55.5%
Production and Processing	47.1%	52.9%
Environmental protection	64.1%	35.9%
Total	445	930

Source: authors' own elaboration.

As evidenced in the studies on the expectations of employers towards tertiary graduates, the most common requirement is that of having certain professional experience acquired in the course of the studies (Halik, 2013). Furthermore, research conducted in a group of nearly 17 thousand unemployed persons aged between 18 and 25 years revealed that the extent of such professional experience has a significant bearing on the level of unemployment. The lower the experience, the greater the threat of long-term unemployment (Wojdyło-Preisner and Zawadzki, 2015).

In the present study, the respondents were asked whether they had taken any steps towards gaining professional experience prior to graduation. Nearly 2/3 of the graduates turned out to have had gained some experience in the course of their studies (66.3%). The same was most commonly accomplished in the form of mandatory internships (20.8%), and commission or task-based employment (17.7%). Other forms of placement (11.9%), employment contracts (11.4%), voluntary work (10.7%), voluntary internships (10.3%), unregistered or non-contractual employment (9.9%), work at companies or farmsteads belonging to one's family (3.9%), and running one's own business (3.6%). Respondents were also asked to identify the greatest barriers experienced when seeking employment. The results clearly suggest that the most significant obstacle in finding desirable employment was the lack of sufficient professional experience (30.2%). These findings mean that universities do not fully support students in gaining future employment because 1/3 of students do not gain any professional experience while studying (33.7%), and almost 1/3 of students go to mandatory internships with the help of their university (31.1%).

The respondents were further asked to identify the key competencies needed in their presently occupied position. When choosing from among 24 provided answers, they most commonly indicated: diligence and meticulousness (7.1%), self-reliance (6.8%), work organisation (6.8%), communication skills (6.6%), resilience to stress (6.6%), and engagement (6.1%). (Table 2). This suggests that the curricula of tertiary education courses ought to more strongly emphasise the development of these particular competencies.

Table 2.

Key competencies in the currently occupied position

Competence	Number	Percent of responses	Percent of cases
Diligence and meticulousness	933	7.1%	67.9%
Self-reliance	896	6.8%	65.2%
Work organisation	903	6.8%	65.7%
Communication skills	874	6.6%	63.6%
Resilience to stress	876	6.6%	63.7%
Engagement	805	6.1%	58.5%

Note. Respondents could choose more than one answer. Source: authors' own elaboration.

In the subsequent part of the questionnaire, the respondents were asked to choose from among 12 strengths important in the context of professional activity. The most common selections were personality traits (18.9%), having specific qualifications and competencies (16.7%), industry-specific knowledge (12.3%), and only in fourth place the completed course of study (11.3%) (Table 3). However, when the analysis was narrowed down to only those graduates who work or used to work in their acquired profession, the field of university study was the most commonly selected attribute.

Table 3.*Key attributes of respondents in the context of professional activity*

Attribute	Number	Percent of replies	Percent of cases
Personality traits	882	18.9%	64.1%
Specific qualifications or competencies	782	16.7%	56.9%
Industry-specific knowledge	572	12.3%	41.6%
Field of study	527	11.3%	38.3%
Adequate professional experience	477	10.2%	34.7%
Readiness to retrain	473	10.1%	34.4%
Mobility	300	6.4%	21.8%
Professional experience gained in prestigious institutions	249	5.3%	18.1%

Note. Respondents could select more than one attribute. Source: authors' own elaboration.

Respondents were also asked to consider the question of requirements they had to satisfy in order to secure their present employment (Table 4). When evaluating 12 of the provided possible options, they most often selected the need to develop one's already possessed qualifications (18.2%). The need to improve one's qualifications may stem, at least to some extent, from the general character of the university curriculum, as well as the increasing level of professional specialisation. At the same time, however, one of the main requirements imposed by employers relates to various aspects of employee availability, in particular: general full availability (12.6%), readiness to accept flexible working hours (10.9%), regular commute to locations distant from one's place of residence (10.3%), mobile work and business travel (5.6%). Those requirements stem from modern organisations' need for flexible management which allows human capital to be adjusted to environmental requirements (Juchnowicz, 2016).

Table 4.*Key requirements related to the currently held position*

Requirements related to the currently held position	Number	Percent of replies	Percent of cases
Development of already possessed qualifications	514	18.2%	37.4%
Full availability	354	12.6%	25.7%
None of the above	315	11.2%	22.9%
Readiness to accept flexible working hours, e.g. work at night, on bank holidays	307	10.9%	22.3%
Regular commute to locations distant from one's place of residence	289	10.3%	21.0%
Complete retraining relative to the previously acquired/practiced profession	253	9.0%	18.4%
Starting one's own business	175	6.2%	12.7%
Mobile work/business travel	158	5.6%	11.5%
Purchase of a work tool, e.g. a car, specialist machine, computer	155	5.5%	11.3%

Note. Respondents could select more than one requirement. Source: authors' own elaboration.

Furthermore, it is also worth noting the degree to which the respondents' knowledge and skills acquired during university studies are utilised in their work, as assessed by graduates actually working in their acquired profession. It turns out that 7.1% never use the knowledge and skills acquired during their studies, 15.6% do so sporadically, 29.1% from time to time, 21.8% often, and 24.3% on a daily basis. The results clearly indicate that the knowledge and skills gained during university studies are largely insufficient to effectively practice a profession, which may suggest a certain incompatibility between university curricula and the

actual needs of employers, which necessitates further development of one's human capital outside the academic environment.

6. Summary

The presented results of studies conducted in a group of tertiary graduates revealed that roughly one in three respondents do not practice their acquired profession, hence the human capital of those university graduates is utterly wasted.

The results confirmed the importance of professional experience in the context of employability. It was observed that nearly 2/3 of the graduates made efforts aimed at gaining experience during their studies. This was most commonly accomplished by partaking in mandatory practical training and employment under commission or task-based contracts. The respondents also indicated lack or insufficiency of professional experience as the most important barrier when seeking employment. Universities do not fully support students in gaining future employment because 1/3 of students do not gain any professional experience while studying, and almost 1/3 of students go to mandatory internships with the help of their university. It is therefore of paramount importance that universities take steps aimed at activating students in acquiring greater experience, e.g. through practical training, internships, or employment during university studies.

The article also presents data regarding the key competencies applicable in the currently held position, strengths of graduates in the context of their professional activity, and the requirements of their current employers. When drawing up course curricula, universities ought to consider the development of such competencies as: diligence and conscientiousness, self-reliance, work organisation, communication skills, resilience to stress, engagement, and broadly understood availability.

The respondents indicated that the most common requirement in their present place of employment related to the development of already possessed qualifications. Respondents practising their acquired profession also reported considerable discrepancies between the scope of knowledge and skills acquired at university and the scope actually used in their work. This signifies that human capital must also be developed after completing university studies.

It is noteworthy that in response to the expectations of both employers and students, tertiary schools increasingly commonly introduce dual studies into their academic offers. The aim of such courses is to allow students to simultaneously gain academic knowledge as well as professional experience. The curricula of dual studies combine traditional academic classes with periods of employment in real-world enterprises. Students are therefore provided with the opportunity to gain actual professional experience consistent with their area of study, which will most definitely improve their future employability.

Analysing the career paths of tertiary graduates is a significant element of the efforts aimed at improving the overall quality of tertiary education and adapting it to the demands of the labour market. It should also be remembered, however, that employability is dependent on a whole range of factors. In future studies, it would also be worth analysing the specificity of the labour market. The analysis discussed in the present article is limited only to the labour market in the Lublin region, which is not without a certain specificity (Maleszyk, 2013). A comparative analysis could therefore be considered to include the perspective of other provinces, as well as the country as a whole. It also seems interesting to use a scale by Gunwan et. al. (2018) to measure young adults' perceptions of their future employability.

References

1. *Act of 11 July 2014 amending the Act on higher education and other selected Acts*, Dz.U. [Journal of Laws] 2014, item 1198.
2. *Act of 18 March 2011 amending the Act on higher education, Act on academic degrees and academic title and degrees and title in art, and other selected Acts*, Dz.U. [Journal of Laws] 2011, no. 84, item 455.
3. Balcerowicz-Szkutnik, M., Skórska, A., and Wąsowicz, J. (2017). Perspektywy zatrudnienia absolwentów na polskim rynku pracy [Perspectives of graduate employment in the Polish job market]. *Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*, 316, 7-17.
4. Becker, G.S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. New York: National Bureau of Economic Research.
5. Blaug, M. (1995). *Metodologia ekonomii*. Warszawa: PWN.
6. Ciekankowski, Z. (2014). Kapitał ludzki najistotniejszym elementem w organizacji [Human capital as the key element in an organisation]. *Zeszyty Naukowe Uniwersytetu Przyrodniczo-Humanistycznego w Siedlcach. Seria: Administracja i Zarządzanie*, 101, 135-148.
7. *Council conclusions of 11 May 2012 on the employability of graduates from education and training* (2012/C, 169/04). Official Journal of the European Union, C169/11.
8. Dziewulak, D., Grycuk, A., Russel, P., and Wołodkiewicz-Donimirski, Z. (2014). Monitorowanie karier zawodowych absolwentów przez polskie uczelnie wyższe w świetle wyników badania Biura Analiz Sejmowych [Monitoring the professional careers of graduates by Polish universities in light of the study by the Parliamentary Analyses Office]. *Analizy BAS*, 5(109), 1-7.
9. *Europe 2020 – A strategy for smart, sustainable and inclusive growth*. Communication from the Commission, Brussels, 3.3.2010, COM (2010) 2020.

10. Gach, G., and Krzesiński, P. (2017). *Losy absolwentów szkół wyższych województwa lubelskiego. Raport z badań ilościowych* [Further careers of tertiary graduates in the Lublin Voivodeship. A report from quantitative studies.], Lublin: Voivodeship Labour Office in Lublin.
11. Gunawan, W., Creed, P.A., and Glendon, A.I. (2018). Development and Initial Validation of a Perceived Future Employability Scale for Young Adults. *Journal of Career Assessment*, 106907271878864. doi:10.1177/1069072718788645.
12. Halik, J. (2013). Sytuacja absolwentów szkół wyższych na rynku pracy w opiniach pracodawców oraz przedstawicieli środowisk naukowych i akademickich [Situation of tertiary graduates on the labour market as perceived by employers, researchers and members of the academia]. *Nierówności Społeczne a Wzrost Gospodarczy*, 33, 69-97.
13. Harvey, L. (2001). Defning and Measuring Employability, *Quality in Higher Education*, 7(2), 97-109, doi: 10.1080/1353832012005999 0.
14. Hillage, J., and Pollard, E. (1998). *Employability: Developing a Framework for Policy Analysis, Research report, 85*. Suffolk: Department for Education and Employment.
15. Houben, E., De Cuyper, N., Kyndt, E., and Forrier, A. (2019). Learning to Be Employable or Being Employable to Learn: The Reciprocal Relation Between Perceived Employability and Work-Related Learning. *Journal of Career Development*, 089484531986743, doi:10.1177/0894845319867431.
16. Jasiński, M., Bożykowski, M., Zając, T., Styczeń, M. and Izdebski, A. (2015). Dokładniej, rzetelniej, taniej. Badania oparte na rejestrach publicznych jako szansa dla badań społecznych w Polsce. [More precise, reliable, and affordable. Studies based on public register data as an opportunity for social researchers in Poland]. *Studia Socjologiczne*, 216(1), 45-72.
17. Juchnowicz, M. (2016). Istota elastycznego zarządzania kapitałem ludzkim [Nature of flexible human capital management]. In M. Juchnowicz (Ed.), *Elastyczne zarządzanie kapitałem ludzkim z perspektywy interesariuszy*. Warszawa: PWN.
18. Król, H. (2006). Kapitał ludzki organizacji [Human capital in an organisation]. In H. Król, and A. Ludwicyński (Eds.), *Zarządzanie zasobami ludzkimi*. Warszawa: PWN.
19. Macioł, S. (2012). Kwalifikacje i kompetencje absolwentów szkół wyższych – perspektywa pracodawców [Qualifications and competences of tertiary graduates – employers’ perspective]. *Nauka i Szkolnictwo Wyższe*, 1(39), 34-54.
20. Maleszyk, P. (2013). Specyfika lubelskiego rynku pracy [Specificity of the Lublin labour market]. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 320, 80-90.
21. Marszałek, A. (2012). “Zatrudnialność” – nowa i poszukiwana cecha pracownika [“Employability” – the new and desirable trait of an employee]. *Polityka Społeczna*, 11-12, 20-23.
22. Materiały informacyjne na temat zasobów udostępnianych w ramach czwartej edycji ogólnopolskiego systemu monitorowania Ekonomicznych Losów Absolwentów szkół

- wyższych (ELA) [Reference material on resources available under the fourth edition of the national system for monitoring the economic vicissitudes of tertiary graduates (ELA)]. Retrieved from https://ela.nauka.gov.pl/assets/pdf/opis_badania.pdf, 02.07.2019.
23. McQuaid, R.W., Lindsay, C. (2005). The concept of employability. *Urban Studies*, 42(2), 197-219, doi: 10.1080/0042098042000316100.
 24. *Ogólnopolski system monitorowania Ekonomicznych Losów Absolwentów szkół wyższych* [National system for monitoring the economic vicissitudes of tertiary graduates]. Retrieved from <https://ela.nauka.gov.pl>, 12.07.2019.
 25. Pacuska, M. (2014). Zatrudnialność absolwentów szkół wyższych – przegląd wyników badań losów absolwentów pod kątem zastosowanych wskaźników [Employability of tertiary graduates – review of results from studies on the careers of graduates relative to the adopted factors]. *E-mentor*, 1(53), 4-11.
 26. Poczowski, A. (2008). *Zarządzanie zasobami ludzkimi. Strategie – procesy – metody* [Human Resources Management. Strategies – processes – methods]. Warszawa: PWE.
 27. Pool, L.D., and Sewell, P. (2007). The key to employability: developing a practical model of graduate employability. *Education + Training*, 49(4), 277-289, doi: 10.1108/00400910710754435.
 28. Potelienė, S., Tamašauskienė, Z. (2014). The Rate of Return to Investment in Education: A Case Study of Lithuania. *Wroclaw Review of Law, Administration & Economics*, 014, 4(2), 41-55, doi: 10.1515/wrlae-2015-0014.
 29. Pouratashi, M. (2019). Higher education and activities to improve students' employability skills. *Journal of Education for Business*, 1-7, doi:10.1080/08832323.2018.1548421.
 30. Rakowska, A., Sitko-Lutek, A., Mendryk, I., Jakubiak, M., and Cichorzewska, M. (2018). Diverse Competence Potential of Employees in Innovative Enterprises: Research Results. In A. Rakowska (Ed.), *Unlocking the Potential of Employees in the Context of Organizational Diversity*. Bangkok, Celje, Lublin: To Know Press.
 31. Rothwell, A., Jewell, S., and Hardie, M. (2009). Self-perceived employability: Investigating the responses of post-graduate students. *Journal of Vocational Behavior*, 75, 152-161. doi:10.1016/j.jvb.2009.05.002.
 32. Rutkowski, J. (2008). *Priorytety reformy rynku pracy. Synteza* [Priorities of the labour market reform. A synthesis]. Warszawa: Ministry of Labour and Social Policy.
 33. Sienkiewicz, Ł. (2013). System zarządzania zasobami ludzkimi w oparciu o kompetencje w świetle badań ilościowych [Competence-based system of human resources management in light of quantitative studies]. In Ł. Sienkiewicz, K. Trawińska-Konador, K. Podwójcic (Eds.), *Polityka zarządzania kompetencjami pracowników*. Warszawa: Instytut Badań Edukacyjnych.
 34. Smith, A. (2007). *An Inquiry into the Nature and Causes of the Wealth of Nations*. Edited by S.M. Soares. MetaLibri Digital Library, https://www.ibiblio.org/ml/libri/s/SmithA_WealthNations_p.pdf, November 28, 2019.

35. Suleman, F. (2017). The employability skills of higher education graduates: insights into conceptual frameworks and methodological options. *Higher Education*, 76(2), 263-278, doi:10.1007/s10734-017-0207-0.
36. Szopik-Depczyńska, K., and Korzeniewicz W. (2011). Kapitał ludzki w modelu wartości przedsiębiorstwa [Human capital in the corporate value model]. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania*, 24, 177-204.
37. Wieczorek-Szymańska, A. (2010). Koncepcja kapitału ludzkiego w teorii ekonomii – przegląd wybranych podejść [The concept of human capital in the theory of economics – a review of selected approaches]. *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania*, 17, 157-170.
38. Wiśniewska, S. (2015). Zatrudnialność – pojęcie, wymiary, determinant [Employability – definitions, dimensions, determinant]. *Edukacja Ekonomistów i Menedżerów*, 1(35), 11-24, doi: 10.5604/01.3001.0009.4583.
39. Wojdyło-Preisner, M. (2012). Zatrudnialność – definicje, ewolucja koncepcji i ramy do analiz [Employability – definitions, evolution of the concept, and analytic framework]. *Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*, 110, 141-148.
40. Wojdyło-Preisner, M., and Zawadzki K. (2015). Bariery zatrudnialności osób młodych w Polsce [Barriers to the employability of young people in Poland]. *Edukacja Ekonomistów i Menedżerów*, 1(35), 55-73, doi: 10.5604/01.3001.0009.4585.
41. Wronowska, G. (2015). Oczekiwania na rynku pracy. Pracodawcy a absolwenci szkół wyższych w Polsce [Labour market expectations. Employers vs. tertiary graduates]. *Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*, 214, 115-127.
42. Yorke, M., and Knight, P.T. (2004). *Embedding Employability into the Curriculum: Learning & Employability*. Series III. York: Learning and Teaching Support Network.