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Competencies of graduates as future labour market participants – preliminary study

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ABSTRACT
The aim of article is to examine and compare the views of employers and future employees on the desirable competencies of the potential labour market participants. The applied research method is a combination of qualitative and quantitative methods – interviews conducted among recruiters (representing potential employers) and a survey of university graduates (future employees). The study shows that both the Polish graduates and the employers identify the deficits of professional competencies. The differences of opinions were related to their assessment of generic competencies, the deficits of which were pointed to by the interviewed recruiters, who described them at the same time as fundamental to obtaining the employment. Meanwhile, the graduates assessed their generic competencies as the highest. According to the recruiters, the future employees lack also practical experience. On the other hand, the employers believe that the graduates are not prepared to using the possessed theoretical knowledge in practice. It should be noted, however, that employers perceive a great potential for the development of graduate competencies, which, together with acquiring practical experience, will probably lead to the narrowing of the competence gap.

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1. Introduction

Dynamic changes characteristic of contemporary labour markets require continuous monitoring of both available and potential labour resources. The aim of this study is to examine and compare employers' and future employees' views of the competencies needed in labour market. Competencies in general are described as combined and integrated components of knowledge, skills, and attitudes (Kyndt & Baert, 2015). The terms 'competency' and 'competence' have been broadly discussed in the literature. While the terms are linked, they are also distinct. Competency is a class of things that can be used to characterise individuals and their behaviours, whereas competence can be described as the evaluation of performance in a specific domain of activity (Mitchelmore & Rowley, 2010). The following discussion focuses on the issues related to competency.

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Competency includes knowledge, skills, attitudes, values, and behaviours that are necessary to achieve the desired performance level in a particular activity or task (Morris, Webb, Fu, & Singhal, 2013). Some authors consider competencies as 'knowledge, skills, and attitudes that are necessary to perform a job successfully' (Miller, Wesley, & Williams, 2012, p. 351). Others define it as characteristics in a field of knowledge, abilities, and attitudes that provide high quality task realisation (Filipowicz, 2004) or describe its attributes as abilities, intellectual capacities, and attitudes (Gupta & Roos, 2001). Recently, the terms 'professional' and 'generic' have been used to describe employees' competencies. The first group covers specific knowledge and skills needed for certain job positions, so these competencies are job-specific. The second group (also called behavioural or social competencies) describe social and psychological abilities that influence an employee's workplace behaviour: for example, communication skills, problem-solving, or conflict resolution. However, it is impossible to define a single and final set of generic competencies (Young & Chapman, 2010) because they are applied in different professional contexts and beyond the field of study (Strijbos, Engels, & Struyven, 2015). Generic competencies are not specific to any given job or work role – they are generic in that they are critical for success across different job types (Young & Chapman, 2010). They are not related to a specific context and as a result, are potentially more easily transferred to other contexts (Nicolescu & P[acaron]un 2009), one reason generic competencies are relatively more important than specific competencies (Grosemans, Coertjens, & Kyndt, 2017; Heijke, Meng, & Ris, 2003).

There are other interrelated terms that are used interchangeably in the literature: 'skills', 'expertise', or 'acumen' (Smith & Morse, 2005). Furthermore, generic skills generally refer to skills and attributes that are useful across different job and life contexts are also alternatively labelled in the literature as 'core skills', 'employability skills', 'life skills', 'soft skills', 'transferable skills', 'generic attributes', 'generic capabilities', 'workplace competencies', and 'key competencies' (Male, 2010; Vučetić, 2018; Young & Chapman, 2010). Despite differences in the labels assigned to these competencies, for the sake of clarity, the term 'generic competencies' is used throughout the remainder of this article, similar to Young and Chapman (2010).

The present study uses the results of research conducted among recruiters (representing potential employers) and students (future employees). Juxtaposing the opinions of these main labour market participants creates opportunities for a broader perspective of issues related to the requirements of the contemporary labour market. The goal of this research is to diagnose the competencies of graduates and compare the opinions of these two groups of labour market participants by presenting both the employers' point of view and future employees' opinions, while relating these two perspectives to each other.

2. Literature overview

Education is a key factor that affects an individual's position in the labour market, because it prepares its participants for future professional activity by providing them with necessary skills. An individual's level of education can have an impact on the

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amount of remuneration received for or the nature of work performed, ability to maintain oneself and/or find employment, productivity of work, or the number of work hours (Ionescu & Cuza, 2012).

Dynamic changes in economic structures influence the demand for certain labour resources, as new jobs are created that require new knowledge and skills. Given the time-consuming nature of the education process, it becomes difficult or even impossible to adjust education to the current needs of the labour market (Gajderowicz, Grotkowska, & Wincenciak, 2013, p. 5). College or university education involves both material and intangible benefits. Globalisation and technological progress force a utilitarian approach to education and, as a result, the transfer of competencies for the labour market is a key task of colleges and universities (Pukelis & Pileičikienė, 2012). According to the H.E.G.E.S.C.O. report, graduates are expected to be competent in a very broad range of areas, comprising both field-specific and generic skills, as well as technical abilities (Allen & van der Velden, 2009).

Kottmann and de Weert's (2013) report, *Higher Education and the Labour Market of 2013*, presents the opinions of representatives from such countries as Belgium, the U.K., Germany, Finland, Denmark, Sweden, and the U.S. on issues related to increasing employment among graduates. It emphasizes the need for cooperation among diverse institutions, colleges/universities, and employers, especially in the area of curriculum development. Experts point to the need for increasing the number of students in the fields of science (including natural science), technology, and nursing, while reducing the number of students in the humanities and social sciences. Experts also pay attention to the nature of teaching, where there is a need for education oriented towards business practices. There are ongoing discussions regarding the desired general or specialized nature of education. European employers appreciate both general knowledge and specialist skills, while employers in the U.S. have a slightly different opinion. According to a study published in Kottmann and de Weert (2013), U.S. employers believe college and university graduates should possess general knowledge, while other required knowledge or skills can be acquired in the workplace (Kottmann & de Weert, 2013, pp. 18–20).

Employers also consider individual values and personalities, which are formed in the environment in which a person is raised, and the knowledge and skills obtained during the course of education. In large enterprises that employ more than 1,000 employees, knowledge and skills are more important. However, in small business entities, more attention is paid to personal traits and values. At the recruitment stage, the so-called generic competencies tend to be more important than specific ones (Cheong, Hill, Fernandez-Chung, & Leong, 2015).

Employers in Germany and Norway expect prospective employees to have not only general knowledge acquired during the training provided in the academic curriculum but also analytical problem-solving skills, communication skills, management skills (especially time management), self-presentation abilities, and the predisposition for lifelong learning and creativity. Moreover, employers value future employees capable of teamwork with abilities that result from applying general knowledge in practice. Expert professionals emphasize that it is important for graduates to have qualities such as creativity and problem-solving or teamwork skills. It is also

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important that they have entrepreneurial and leadership characteristics (Nicolescu & P[acaron]un 2009, pp. 17–20). Similar conclusions were formed after conducting research in four E.U. countries (Hungary, Lithuania, Slovenia, and Poland) and in Turkey. These studies allowed for observation of graduates' deficits, primarily in the area of competencies such as the ability to work under time pressure or manage time. Some gaps in expert knowledge were also noted (Pukelis & Pileičikienė, 2012). In addition, research conducted among graduates of business schools in Taiwan found that students who were highly involved in different types of activities outside the classroom were more likely to find work than those who did not participate in outside activities. Graduates of these schools claimed that the factors that proved decisive for their employment included possessing such traits as creativity and leadership or the ability to manage time or self-present (Lau, Hsu, Acosta, & Hsu, 2013, pp.. 26–28). Despite the increase in number of graduates and the Humboldt type of training in the Czech Republic, which is typically theory-based and detached from practice, graduates quickly find jobs in the labour market and receive high salaries compared with those who have not completed their studies. Competencies play an extremely important role both in the workplace and the field of tertiary education (Pabian, Šima, & Kynčilová, 2011, pp. 1–2, pp. 95–118).

Eliminating the gap between the level of competencies demanded in today's organisations and the knowledge traditionally passed to students in the course of their studies is a key issue for improving the efficiency of education systems in many European countries. However, this will not be possible without ensuring quality academic staff to provide students with the current knowledge and skills necessary to succeed in the labour market (Leoni, 2014).

3. Research methods and procedure: employers' and employees' opinion studies

The first of the two studies was qualitative and conducted among employers. Given the importance of generic competencies for work quality and productivity, an empirical study was conducted with the goal of identifying the key generic competencies and an assessment of those competencies among individuals seeking employment after graduating from a college or university. The opinions were gathered from recruiters of large companies responsible for recruitment and selection of employees, that is, the persons whose day-to-day tasks include developing competency profiles for jobs and evaluating those competencies in candidates. The recruiters were selected as the respondents because of their proficiency in identifying employee competencies needed by the organisations they represent. Interviews were conducted in late 2015 with a group of 10 recruiters (nine women and one man) who handle employee recruitment and selection for enterprises with more than 250 employees. Their organisations are in Gdansk, Sopot, Gdynia, and Warsaw, and represent various sectors of the economy, including banking/finance, I.T., and industry/production. The respondents were deliberately selected as recruitment field experts. An open interview technique was used, based on a list of loosely formulated questions/problems, as described by Kvale (2010).

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The second study, the quantitative research, was conducted among university graduates; as current and future employees, this is another important group of labour market participants. The research collected the opinions of graduates on the course of their education and preparation for entering the job market. The study was conducted among students of the Faculty of Management and Economics of the Gdańsk University of Technology at the time of their final exam in June and July 2015. There were 903 students expected to complete their studies at this time. However, only 25% or 228 of the students fulfilled all the necessary formal conditions, graduating on time. The final sample included 225 people, as three students did not complete the survey. The study involved 57 bachelor's degree graduates (25%) and 168 graduates from master's degree studies (75%).

The main objective of this study was to obtain the opinions of young people who were finishing a stage of their education in the new educational offering at the Faculty of Management and Economics, with a goal of increasing the appeal of the learning process by incorporating more external institutions and experts. The survey questionnaire contained 13 items, most of which were closed questions. Because of the sampling method, the results of the study should not be generalized to the entire population. The method of respondent selection was similar to random selection or convenient choice since the respondents were included in the sample simply because they were taking their final exam at that time. This method is a non-probabilistic sampling technique. While random selection of respondents does not guarantee representativeness, it does give the researcher a limited understanding of the views of the population (Szreder, 2004). The respondents answered questions related to self-assessment of their competencies: professional, communication, interpersonal, I.T., and analytical. A 5-point Likert scale was used; 1 = very low, 5 = very high.

4. Research findings and discussion

The results of employers' interviews show that the most appreciated candidate competencies are related to communication. Interpersonal communication skills, both verbal and non-verbal, seem to be very important both during the process of applying for a job, when they facilitate diagnosis of other competencies, and during employment, in the course of performing appropriate professional tasks in the workplace. Another important group of competencies included sincerity and openness as necessary pre-conditions for a correct and constructive interview. The three groups of key competencies identified by respondents also included the participants' motivation and commitment, manifested in their determination to showcase their professional strengths during the interview, and as a result, find satisfactory employment.

The recruiters were also asked their opinion on whether university graduates entering the labour market have the competencies needed to be identified as professionals. More than half the respondents provided a negative answer to this question. The most commonly cited reasons included a lack of sufficient practical professional experience, the theoretical nature of preparation for professional tasks, and as a consequence, a lack of understanding of work standards. Graduates' lack of humility and their demanding attitudes were also mentioned, manifested in their extravagant

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expectations of potential employers regarding wages and working conditions. These expectations were often not aligned with the competencies and job expertise the graduates possessed or the context of the jobs that were being discussed. Statements of two respondents are quoted below:

> Unfortunately, the graduates can't be described as professionals. These are usually people who have no work experience, and their knowledge after graduation is often purely academic. Generation Y is very demanding and usually unaware that in order to demand something from the employer one should have something attractive to offer. I mean knowledge, professional competence, or experience – even an internship.

> It seems that graduates can sometimes create the appearance of professionalism, as they have a base of theoretical and substantive knowledge, personality traits, etc. However, I have the impression that one can become a true professional only by learning from a 'living organism', in the daily work – then one's professionalism is most authentic.

It should be noted, however, that the respondents indicated that graduates also include individuals who compensate for the gaps in their skills and knowledge with personality features, commitment to work, and a focus on development. In the opinions of the recruiters interviewed, maturity, self-confidence, self-reliance, and responsibility for one's decisions represent factors that indicate these individuals will become professionals and valuable employees in the short term. Below are some examples of respondents' answers:

> There are interesting people who do not have the skills and knowledge needed for the job, but they do have an interesting personality and approach work in a rational and mature way.

> I think it is difficult to talk about professionalism in the sense of the definition

> I suggested earlier, because for me it is linked primarily with work and experience. The very term comes from the word 'profession' – occupation. Few graduates have enough professional experience to be called professionals. This does not mean, however, that they do not have the traits which in the future will allow them to become professionals.

> Today's graduates enter the labour market with a lot more self-confidence and responsibility for taking their destiny into their own hands. This will help them cope with its requirements effectively. I don't think, however, that they were already professionals at the stage of entering the market – professionalism is associated with some business experience and looking from a broader perspective.

Only two of the 10 respondents believed that graduates are worthy of being called professionals at the time they enter the labour market. They argued that graduates enter the market in a conscious way, with defined expectations and an understanding of labour market realities; as a result, they have the ability to quickly adapt to its requirements.

Based on the research carried out among recruiters as potential employers who are aware of their needs, it is difficult to clearly determine whether the competencies of university graduates entering the labour market allow them to be identified as professionals. The most common opinion was that they cannot be described this way because professionalism is closely linked with professional practice. It should,

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however, be emphasised that the respondents saw great potential for developing graduates' competencies. The main decisive factor in this area was the opportunity to gain practical experience that would complement the theoretical knowledge acquired in the course of study at a college or university. As a result, the competence gap can be eliminated by reducing the deficits in the scope of competencies graduates possess, including generic competencies.

In the graduates' questionnaire, one of the questions concerned the proportion of practical classes in the curriculum of the program they had completed. Approximately 50% of the respondents (113 individuals) said that there was a sufficient quantity of practical classes ('yes' and 'rather yes' responses). One hundred and nine respondents (48%) claimed that there are 'definitely' or 'rather' too few practical classes. Only two individuals, less than 1% of the respondents, had no opinion on this subject, and one did answer this question. It was important to obtain respondents' opinions about the appropriate proportion of practical to theoretical classes during the overall cycle of education. Of the respondents, 58 thought that this ratio should be equal (50%/50%), whereas 45% of the respondents expected more or many more theoretical classes. More or many more practical classes were expected by 28% of the respondents (64 students).

The common opinion is that students engage in paid work during their studies. Hall (2010) describes the relationship between studying full-time and working part-time. Students attach great importance to the experience they gain during their studies. They believe there should be more convenient solutions at a university (online lectures, communication with teachers outside of class, or flexible schedules) (Hall, 2010, pp. 439–449). Research results also confirm that work, particularly part-time, is appreciated by both employers and the individuals who work. For example, in Australia, up to two-thirds of students take jobs during their studies (Smith & Patton, 2013, p. 50). However, the work they perform, such as services or catering, is often unrelated to their education.

Thus, it was important to examine whether these students ever lost a job offer because they lacked the required skill credentials or certificates necessary to perform the job. 'One, several or many times' was the answer given by 57% of the students surveyed; 43% of the respondents indicated that they had not been required to give up job offers for this reason.

The research also highlighted the range of courses that universities should offer during a course of study. There were three main groups of courses: I.T. skills, language skills, and project management skills, which can be considered generic skill boosters. The respondents could specify any number of courses, considering only their own interests. The types of training most frequently mentioned by students included: Microsoft SharePoint, Agile Project Management, P.M.I., Prince2 Foundation, Microsoft Office Specialist, S.A.P. E.R.P., S.Q.L., Oracle, S.P.S.S., M.A.T.L.A.B., Visual Basic for Applications (V.B.A.), business coach (I.C.F.), and I.C.F.E. (business English). Most of these are specialized, certified training in the I.T. area.

Of the respondents, 58% indicated the need to complete at least three of these courses, while 42% said they would like to participate in more than four trainings.

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Four graduates identified the need to complete all the proposed trainings, which may indicate a lack of explicit professional interests and a desire to find any type of work. In total, the respondents indicated their desire to participate in 795 courses, an average of more than 3.5 per person. The nature of these courses was varied; most respondents, as much as 46%, claimed they would be interested in taking project management training (P.M.I.). Almost 40% of them wanted to participate in business English training (I.C.F.E.); almost 37% said it would be important to participate in Microsoft Office Specialist training (Word, Excel), while 36% wanted courses related to the S.Q.L. language. The least frequently mentioned training, less than 8% of respondents, included courses in the statistical program S.P.S.S. and other courses not mentioned here. Of the respondents who saw a need to hold training related to P.M.I., 25% indicated Prince2 Foundation and Agile Project Management training. It should be emphasized that students from all areas and levels of study were interested in project management training.

More detailed information concerning the number and structure of respondents' suggestions for types of training, analysed by degree of studies and gender, is presented in Table 1.

It is also interesting to investigate whether there are differences in graduates' responses depending on the degree of studies and gender. Both bachelor's and master's degree graduates preferred the same training in Agile P.M. (over 7%), Prince2 (5.7%), Microsoft Office (10%), and Visual Basic for Application (6%). However, there were some differences in the responses of bachelor's and master's degree graduates; for example, S.A.P. training was indicated by 11.6% of master's degree graduates but by only 5% of bachelor's degree graduates. Some of the master's degree graduates were likely employed in organisations that utilize technical software, such as E.R.P.s, and as a result, their demand for such training was higher. Another example is business trainer (I.F.C.) training, suggested by over 10% of bachelor's degree graduates and 5.8% of master's degree graduates; the difference may be due to the lower level of competencies obtained during bachelor's degree studies. The demand for training was also analysed by gender. The need for training in S.A.P. (9%), Matlab (more than 3%), and Business Trainer (7%) was similar for both genders. Over 11% of women and only 8.6% of men indicated a need for Microsoft Office Specialist training. Project management training was indicated by 13.5% of women and 11.5% of men. The requests for S.Q.L. training were reversed: these courses were suggested by 11.5% of the men and 9.9% of the women. This may be the result of the technical complexity of this system; however, these specific competencies are usually predominant among men, who are over-represented in so-called 'male' professions (Czarnik & Kasparek, 2015, p. 31). All respondents declared a need for Business Language training.

The structure similarity index between the number and type of suggested courses was 87% among bachelor's and master's degree graduates and 90.5% between men and women, so the convergence of suggestions in these groups is very high. Although only a few respondents selected S.P.S.S. training, the difference between the proportions of bachelor's and master's degree graduates who indicated a need to attend this training was statistically significant ($p < 0.05$). This may be due to the specific

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Table 1. The number and structure of graduates indications for training demand, by degree of studies and gender.

	Bachelor's degree		Master's degree		Women		Men	
Type of training:	Number of indications	Structure of responses [%]	Number of indications	Structure of responses [%]	Number of indications	Structure of responses [%]	Number of indications	Structure of responses [%]
Microsoft SharePoint	19	7,82	28	5,07	36	6,14	11	5,26
Agile Project Management	18	7,41	43	7,79	48	8,19	13	6,22
PMI Project Management	29	11,93	74	13,41	79	13,48	24	11,48
PRINCE2 Foundation	14	5,76	32	5,80	32	5,46	14	6,70
Microsoft Office Specialist	26	10,70	57	10,33	65	11,09	18	8,61
SAP, ERP	13	5,35	64	11,59	58	9,90	19	9,09
SQL	19	7,82	63	11,41	58	9,90	24	11,48
Oracle	15	6,17	29	5,25	31	5,29	13	6,22
SPSS	8	3,29	9	1,63	9	1,54	8	3,83
Matlab	11	4,53	17	3,08	20	3,41	8	3,83
Visual Basic for Application	16	6,58	34	6,16	35	5,97	15	7,18
Business Trainer (e.g., IFC)	25	10,29	32	5,80	42	7,17	15	7,18
ICFE – Business Language	27	11,11	57	10,33	64	10,92	20	9,57
Other	3	1,23	13	2,36	9	1,54	7	3,35
Total	243	100	552	100	586	100	209	100

Source: Authors' work based on research results.

Table 2. Self-assessment of graduates own competencies, by degree of studies and gender (number of individuals).

	Bachelor's degree			Master's degree		
Competencies:	Very high and high	Average	Low and very low	Very high and high	Average	Low and very low
Professional	20	22	15	95	55	18
Communication	46	7	4	135	25	8
Interpersonal	43	9	5	133	30	5
IT	10	27	20	61	51	56
Analytical	29	16	12	100	45	23
	Women			Men		
Competencies:	Very high and high	Average	Low and very low	Very high and high	Average	Low and very low
Professional	82	56	26	33	21	7
Communication	137	19	8	44	13	4
Interpersonal	137	23	4	39	16	6
IT	49	54	61	22	24	15
Analytical	87	50	27	42	11	8

Source: Authors' work based on research results.

character of this training and the limited possibility of utilising it professionally. There were no other statistically significant differences between the groups of respondents. Of course, when comparing bachelor's and master's degree students in the context of additional training preferences, some of the differences in responses may be the result of different levels of information between the groups.

The graduates rated their communication and interpersonal competencies highest, with average ratings of 4.08 and 4.07, respectively. The respondents assessed their I.T. competencies lowest, with an average score of 3.01. The average score for professional competencies was 3.45, while analytical competencies were rated at 3.61. Of the respondents, 35 individuals rated their I.T. competencies as low, pointing to the need to participate in Microsoft Office Specialist training. This study shows that there is a negative but statistically insignificant correlation between the number of courses identified and information technology competencies (correlation coefficient −0.07) or analytical professional competencies (correlation coefficient −0.028). As a result, there is no convergence between readiness to take training and graduates' assessment of their own competencies. Of those who indicated having high communication competencies, 69 indicated a desire to participate in an I.C.F.E. language course. There were no observed differences between the graduates of particular courses of study and their reported training needs or the competencies they acquired during their studies.

Detailed information about graduates' self-assessment of their competencies by degree of studies and gender is presented in Table 2.

More than half (56%) of master's degree graduates rated professional competencies as high or very high, while 32% reported them as average. However, the opinions of bachelor's degree graduates were different, as 35% of them described their competencies in this field as high or very high and 39% assessed them as average. Furthermore, the percentage of respondents who rated their professional competencies as low was higher among bachelor's degree graduates (26%) than master's degree graduates (11%). This may be because master's degree graduates are comparing their competencies with labour practices and are able to more accurately rate their own competencies. There were no major differences in the responses to this question

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based on the gender of respondents. Both men and women rated their own professional competencies as at least high (50%) or average (over 30%). Graduates of bachelor's and master's degree programs rated their communication competencies as at least high (over 80%) or average (over 12%).

There is a discrepancy between the responses of the two groups of graduates in their assessment of analytical competencies. Over 21% of bachelor's degree graduates and 13% of master's degree graduates scored their analytical competencies as low. The analysis also shows that there is a positive, statistically significant difference between the percentages of women and men who rated their analytical competencies as high or very high.

The proportions of graduates' rankings of I.T. competencies is interesting. After graduating with a master's degree, I.T. competencies were rated high and very high by 36% of the respondents, compared to only 17% of respondents graduating with bachelor's degrees. We can conclude that the additional education in the master's program broadened these competencies, compared to those obtained in the bachelor's program. It is concerning that over 30% of bachelor's and master's degree graduates rated their IT competency as low. This may be due to the rapid technological development and companies' constant implementation of new technologies. As a result, graduates need to constantly train to adapt. The differences observed in the self-assessment of I.T. competencies (at the average level and at the high level and above) between bachelor's and master's degree graduates were statistically significant.

Furthermore, graduates at both degree levels rated their interpersonal competencies similarly: at least high (75%), average (over 16%), and low. These competencies were also analysed by gender. The responses of women and men were statistically significantly different at all levels. For example, 84% of women but only 64% of men rated their interpersonal competencies as high and very high.

The responses of graduates to participating in study visits is also interesting. One question asked about respondents' willingness to take part in a subsidized study tour to a foreign employer; 75% of the respondents (i.e., 168 people) answered 'definitely yes' and 'rather yes'; 16% said they would not like to participate in such visits; and 9% of respondents had no opinion or did not provide an answer. The graduates also had the opportunity to answer a question related to their interest in student projects organised by employers. Of the respondents, 168 (85%) answered 'definitely yes' or 'rather yes', while 10% expressed no interest and 5% had no opinion.

5. Conclusion

The results of this study confirmed the findings in previous research. Graduates entering the labour market are expected to have a broad range of competencies, both professional and generic. First, employers face difficulties recruiting employees due to graduates' lack of professional competencies. Moreover, university graduates lack generic competencies, such as communication and interpersonal skills, which are crucial in the recruitment process and for finding a job. These findings are similar to research results in previous studies, where generic competencies were considered even more important than professional competencies at the recruitment stage. The responses of the graduates surveyed differed from those of employers, as they ranked

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their communication and interpersonal competencies highest. The discrepancy between these groups, likely due to graduates' inaccurate (inflated) self-assessments of their own competencies in these areas, is therefore noticeable.

According to the recruiters interviewed, as future employees, graduates also lack practical experience. This may mean that graduates' employment while in school is unfortunately inconsistent with their educational focus, and is only ad hoc and temporary in nature. Half of the graduates indicated that the proportion of practical training in the curriculum is sufficient, but the other half disagreed, claiming that there are too few practical classes. However, employers believe that graduates are not prepared to apply theoretical knowledge in practice.

From the perspective of graduates as future employees, there is a gap between the expectations and possibilities of obtaining a job. However, there is also a gap for employers. Employers pay attention to the lack of work or internship experience and inadequate competencies, especially related to communication and personality traits, including foreign language skills. These results are consistent with previous research that found a discrepancy between employee performance and employers' needs. It should be noted, however, that employers perceive great potential for the development of graduates' competencies, which, combined with the acquisition of practical experience, should lead to narrowing the competence gap. This also corresponds with previous research pointing out that some employers value general knowledge but believe other competencies can be acquired in the workplace. The conclusions from this preliminary study contribute to future comparative research and further exploration in this field.

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References

Allen, J., & van Der Velden R. (Eds.). (2009). *Competencies and early labour market careers of higher education graduates*. Ljubljana: University of Ljubljana, Faculty of Social Sciences.

Cheong, K.-C., Hill, C., Fernandez-Chung, R., & Leong, Y.-C. (2015). Employing the 'unemployable': Employer perceptions of Malaysian graduates. *Studies in Higher Education*, *41*, 2253–2270. doi:10.1080/03075079.2015.1034260

Czarnik, S., & Kasparek, K. (2015). Segregacja płciowa na polskim rynku pracy. In J. Górniak (Ed.), *(Nie)wykorzystany potencjał. Szanse i bariery na polskim rynku pracy* (pp. 39–58). Warszawa: PARP.

Filipowicz, G. (2004). *Zarządzanie kompetencjami zawodowymi*. Warszawa: PWE.

Gajderowicz, T., Grotkowska, G., & Wincenciak, L. (2013). Rola systemu edukacji w dostarczaniu kwalifikacji poszukiwanych przez pracodawców: Analiza przypadku województwa pomorskiego. *Edukacja*, *2*(122), 5–19. Retrieved from http://www.edukacja.ibe.edu.pl

Grosemans, I., Coertjens, L., & Kyndt, E. (2017). Exploring learning and fit in the transition from higher education to the labour market: A systematic review. *Educational Research Review*, *21*, 67–84.

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Gupta, O., & Roos, G. (2001). Mergers and acquisitions through an intellectual capital perspective. *Journal of Intellectual Capital*, *2*(3), 297–309.

Hall, R. (2010). The work–study relationship: Experiences of full-time university students undertaking part-time employment. *Journal of Education and Work*, *23*(5), 439–449. doi:10.1080/13639080.2010.515969

Heijke, H., Meng, C., & Ris, C. (2003). Fitting to the job: The role of generic and vocational competencies in adjustment and performance. *Labour Economics*, *10*(2), 215–229. http://dx.doi.org/10.1016/S0927-5371(03)00013-7.

Ionescu, A. M., & Cuza, A. I. (2012). How does education affect labour market outcomes? *Review of Applied Socio-Economic Research*, *4*(2), 130–144.

Kottmann, A., & de Weert, E. (2013). *Higher education and the labour market, international policy frameworks for regulating graduate employability*. Retrieved from http://doc.utwente.nl/88807/1/higher-education-and-the-labour-market.pdf

Kvale, S. (2010). *Prowadzenie wywiadów*. Warszawa: Wydawnictwo Naukowe PWN.

Kyndt, E., & Baert, H. (2015). Entrepreneurial competencies: Assessment and predictive value for entrepreneurship. *Journal of Vocational Behavior*, *90*, 13–25.

Lau, H.-H., Hsu, H.-Y., Acosta, S. & Hsu, T.-L. (2013). Impact of participation in extra-curricular activities during college on graduate employability: An empirical study of graduates of Taiwanese business schools. *Educational Studies*, *40*, 26–47. doi:10.1080/03055698.2013.830244

Leoni, R. (2014). Graduate employability and the development of competencies. The incomplete reform of the "Bologna process". *International Journal of Manpower*, *35*(4), 448–469.

Male, S. (2010). Generic engineering competencies: A review and modelling approach. *Education Research and Perspectives*, *37*(1), 25–51.

Miller, T. L., Wesley, C. L., & Williams, D. E. (2012). Educating the minds of caring hearts: Comparing the views of practitioners and educators on the importance of social entrepreneurship competencies. *Academy of Management Learning & Education*, *11*(3), 349–370.

Mitchelmore, S., & Rowley, J. (2010). Entrepreneurial competencies: A literature review and development agenda. *Journal of Entrepreneurial Behaviour & Research*, *16*(2), 92–111.

Morris, M. H., Webb, J. W., Fu, J., & Singhal, S. (2013). A competency-based perspective on entrepreneurship education: Conceptual and empirical insights. *Journal of Small Business Management*, *51*(3), 352–369. doi:10.1111/jsbm.12023

Nicolescu, L., & P[acaron]un, C. (2009). Relating higher education with the labour market: Graduates' expectations and employers' requirements. *Tertiary Education and Management*, *15*(1), 17–33. doi:10.1080/13583880802700024

Pabian, P., Šima, K., & Kynčilová, L. (2011). Humboldt goes to the labour market: How academic higher education fuels labour market success in the Czech Republic. *Journal of Education and Work*, *24*, 95–118. doi:10.1080/13639080.2010.534443

Pukelis, K., & Pileičikienė, N. (2012). Matching of developed generic competencies of graduates in higher education with labour market needs. *The Quality of Higher Education*, *9*, 140–167.

Smith, B., & Morse, E. (2005). *Entrepreneurial competencies: Literature review and best practices*. Ottawa: Small Business Policy Branch, Industry Canada.

Smith, E., & Patton, W. (2013). Part-time working by students: Is it a policy issue, and for whom? *Journal of Education and Work*, *26*(1), 48–76. doi:10.1080/13639080.2011.623123

Szreder, M. (2004). *Metody i techniki sondażowych badań opinii*. Warszawa. Polskie Wydawnictwo Ekonomiczne.

Strijbos, J., Engels, N., & Struyven, K. (2015). Criteria and standards of generic competences at bachelor degree level: A review study. *Educational Research Review*, *14*, 18–32.

Vučetić, A. Š. (2018). Differences in perception of the importance of generic competencies among destination regions. *Economic Research-Ekonomska Istraživanja*, *31*(1), 1240–1257.

Young, J., & Chapman, E. (2010). Generic competency frameworks: A brief historical overview. *Education Research and Perspectives*, *37*, 1–24.

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