



International Experiences as one of main Elements in Quality Education

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Abstract: One of the basic duties of universities is to educate broad-minded, enlightened and versatile people, that is to prepare highly qualified professionals in diverse domains of social life. The modern job market, first of all, it is globalization modern technologies, rising clients' requirements and the omnipresent change. New challenges are just in the face of technical university graduates; an engineer should possess wide and continuously updated knowledge concerning own domain and other specialities. To obtain success in the job market, technical university graduate has to possess special skills and competence. The engineer profession becomes more often a self-employed professional. Technically educated people become experts for hire for a limited period of project realisation. The modern recruitment methods are aimed at searching and checking competences of job candidates. The competence are combination of knowledge, skills and motivation, that is elements which give university graduates a chance to achieve success at work. Theorists of organization and management reduces competence to a triad: talent, style and passion. A number of organizations present an iceberg as a model of an ideal professional engineer, where a small part visible above the water line represents technical skills and knowledge concerning specific domain (easy to change, form and identify) and under the water line there are competence and features of personality. One of the basic tasks of universities is educating people who are broad-minded, smart and versatile, i.e. preparing highly-qualified specialists in different fields of social life. The international labor market, most of all, amounts to globalization, modern technologies, growing demands of customers and omnipresent change. The graduates of technical universities are the ones who are to face new challenges. Polish engineers ought to possess wide and up-to-date knowledge of their own and other specialities. The graduate of the technical university, to achieve success on the international labor market must have specific skills and competences. The profession of an engineer is more and more frequently a freelancing job with no limits. People with university degrees in technology become professionals for rent for a specified period of the project implementation. Recruitment methods in Poland and abroad are directed to searching for and checking competences of those applying for a post. Competences are the combination of knowledge, skills and motivation, i.e. the elements which cause that university graduates have opportunities to succeed at work. The theoreticians of organization and management bring competences to the triad: talent, style and passion. A number of well-known corporations present a model of the sought specialist engineer as an iceberg where there is only a little tip noticeable on the surface– representing technical skills, knowledge in a specific field – easy to change, create and relatively easy to identify,

and below, there are competences and features of personality. The considerations discussed in the paper are an attempt to find an answer to a range of questions, among others: what graduates, with what (mostly “soft”) competences are being searched for by employers on the international labor market now, what characteristics, skills, qualifications the graduate of the technical university, looking for a job both in Poland and abroad, should have, what changes and new directions of education, specialties should be introduced to improve the quality of education and the conditions of the university education etc. In the paper, there will be underlined the role of such engineering competences as: creative thinking, analysis and critical evaluation of data, the ability of appropriate problem identification and definition, reasons or results of activities. To interpret data it is necessary to access them and therefore the ability of accessing information coming from different sources, ordering, interpreting and processing it, also with the application of electronic data, is very important. It is also the ability to see problems in their broader context, as a part of the larger whole, the systems. The ability of managing changes, understanding what factors influence changes (including not only technological development, but also global, international trends – e.g. environmental protection, energy saving, customer requirements, advancement of competitors, requirements of capital markets) is also important. The most important competence, the mostly appreciated by international employers is motivation, readiness for constant development, initiative and passion. The paper is both theoretical and empirical in nature.

Key words: quality of education, international experience, competences, “soft” competences, a technical university graduate, international labor market

1 Introduction

Polish employers more and more frequently notice that (technical) universities pay too little attention to the cooperation with enterprises, also, they do not help create interpersonal skills, e.g. creativity or dealing with conflicts and stress (so called “soft” competences”). Similarly, university graduates express the opinion that they are not sufficiently equipped with these skills and competences. “Soft” competences consist of interpersonal competences combined with personal competences, currently known as psychosocial skills. In international job advertisements, “soft” competences are usually listed among the most desirable requirements (independence, resistance to stress, high auto-motivation) and interpersonal skills (communication skills, ability to work in a team.). While discussing psychosocial skills there must be defined the concept of “competence” itself. The issues of managerial roles and competences have been discussed in psychology and, most of all, social psychology, for a long time. Nowadays, managers in enterprises are required to perform more and more new tasks, particularly at the time of recession there are required the skills for rapid changes, innovativeness, creativity, mobility and, most of all, the abilities triggering the activity and rapid adaptation to the changing environment. It is very important for managers to be aware of their social competences, which they should constantly

develop and skillfully use while working with people. The concept of “competences” comes from the Latin term *competentia*, which means usefulness and responsibility. On the other hand, in English, this term is understood as abilities or skills to perform specific activities.¹ According to a social psychologist, M. Argyle, social competences are “a set of such competences which the ability to respond rapidly to a specific social situation depends on.”² The abilities necessary to process behavioral information, which the social psychologist described as social intelligence, are responsible for the creation and development of social competences. Every person acquires social competences in the course of their whole life. It is called social training, which affects proper interpersonal interactions with the external environment. The subject literature defines social competences as “practical knowledge of something, proficiency at something, ability to perform something”³. On the other hand, competences themselves are “a range of one’s knowledge, ability or responsibility”⁴. The mid-level manager, to manage competently, ought to constantly improve their qualifications and skills. “Competences are described as a range of powers of attorney and rights to operate the people with appropriate qualifications and skills are entitled to”⁵. This concept is also specified in theory as “the abilities to use knowledge and skills that serve the effective performance of the role of the manager. Therefore, all managerial skills can be competences when they are effectively utilized”⁶. Competences amount to types of behavior that some people master better than others, which makes them act more efficiently in specific situations⁷. It should be pinpointed that competences are defined differently and they can be appropriately categorized. The following competences can be identified: generic and specific, threshold and behavioral, differentiating⁸.

Figure 1 presents the categorization graphically.

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- 1 A. Przewoźna-Krzemińska „Kompetencje menedżera w zarządzaniu potencjałem społecznym organizacji”[in] Marketing społeczny oraz perspektywy jego rozwoju na świecie A. Pabian (ed.), Wydawnictwo Wydziału Zarządzania Politechniki Częstochowskiej, Częstochowa 2009.
 - 2 M. Argyle, Psychologia stosunków międzyludzkich, PWE, Warszawa 1996.
 - 3 Encyklopedia Popularna PWN, Warszawa 1991.
 - 4 Nowa Encyklopedia Powszechna, PWN, Warszawa 1996, p. 381.
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 - 8 M. Armstrong: Zarządzanie zasobami ludzkimi. Oficyna Ekonomiczna. Kraków 2005, p. 245.

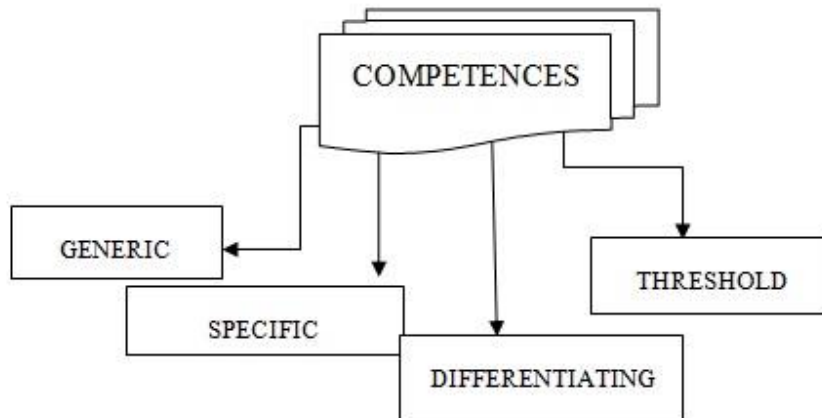


Figure 1

Types of competence.

Source: elaboration on the basis of: M. Armstrong, *Zarządzanie zasobami ludzkimi*, Oficyna Ekonomiczna, Kraków 2005

It often happens in organizations that in spite of possessing relevant formal qualifications (professional education), expertise and skills, employees do not generate the expected results regularly. Therefore, it should be considered whether their poor effectiveness is not just due to a lack of “soft” competences. In such a case, training sessions, i.e. the basic training of this type of skills may bring about significant improvement in the quality and effectiveness of work.

2 Research results

The questionnaire was addressed to the post-graduate students. The questions included in the questionnaire were closed-ended questions, open-ended questions and semi-open questions. Below, there are presented the excerpts of more extensive studies and the obtained results of the questionnaire corresponding to the responses of 40 students. The questions concerning the location, organizational and legal form and size of the company were included in the demographics. In the figures below, there are presented the answers of the respondents.

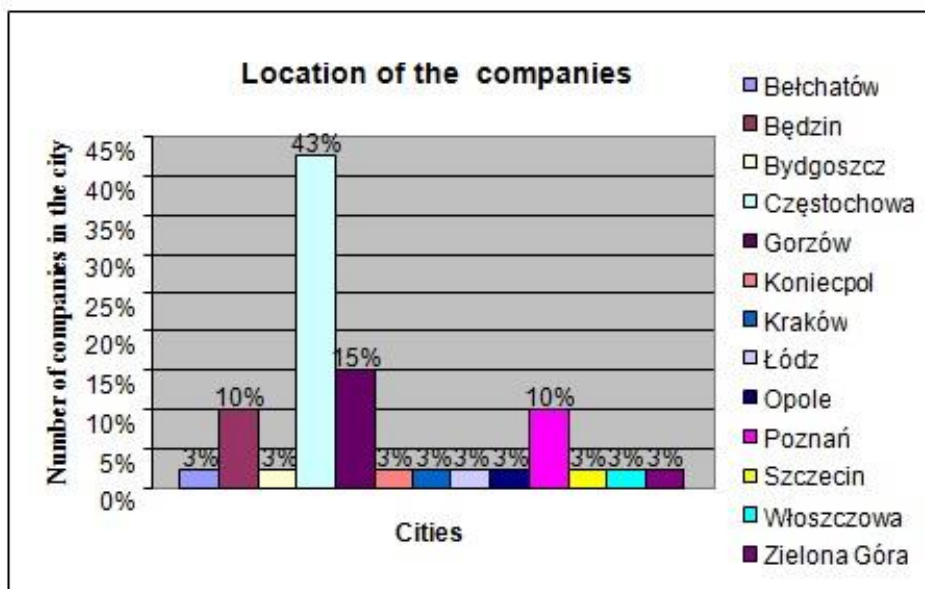


Figure 2

The location of the companies the respondents work for

Source: own study

While analyzing the data in the figure – more than 40% of the respondents work in the companies of Częstochowa but, among the respondents, there are people working very far, e.g. in Szczecin or Zielona Góra. Nearly 80% companies are state-owned companies. It is presented in Figure 3.

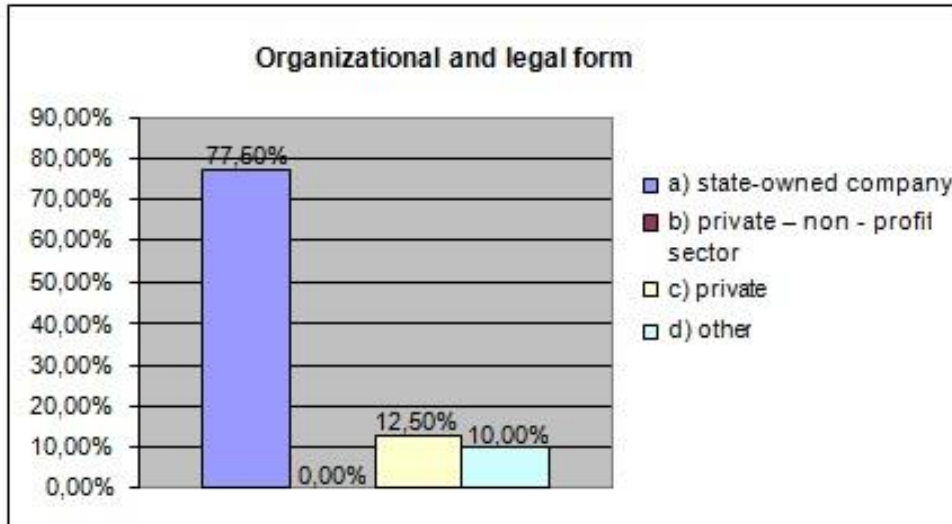


Figure 3
The organizational and legal form of the company the respondent works for.
Source: own study

The third question in the demographics was: “What size is the company you represent?”

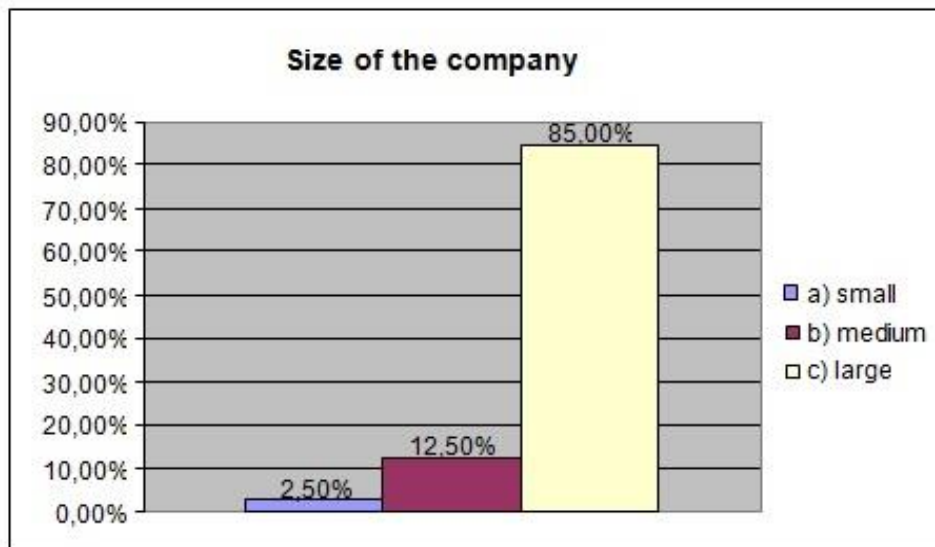


Figure 4
The size of the company
Source: own study

The respondents were, most of all, the managers from large companies (85%), located in big cities (Figure 3). More than 62% of employees (in the respondents' opinion) in the companies were the people with higher education. Proceeding to the questions connected with the problem discussed in the paper, there was asked the following question in the questionnaire: "What competences are necessary to work in your company?". The respondents were to choose from among the following: education, experience in a similar post, good knowledge of a foreign language, excellent service of specialized computer programs, additional powers to do the job (courses, training, post-graduate studies), knowledge of modern management tools. The responses to the questions are graphically presented in Figure 5.

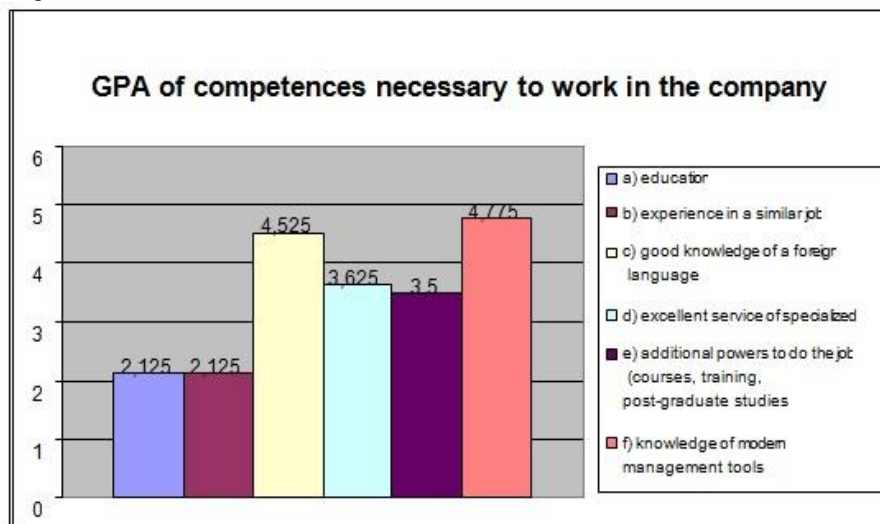


Figure 5

The competences necessary to work in the company.

Source: own study

While analyzing the responses of the surveyed students, in the first position, there was indicated knowledge of modern management tools, in the second place - knowledge of foreign languages followed by service of specialized computer programs. The usually mentioned experience in working in a similar post was mentioned by slightly more than 2% of the surveyed students. In that question, the respondents had a possibility to tick three responses. Referring to professional education (Figure 6), more than 62% of those questioned pointed that it is essential, and even necessary to be employed in their companies.

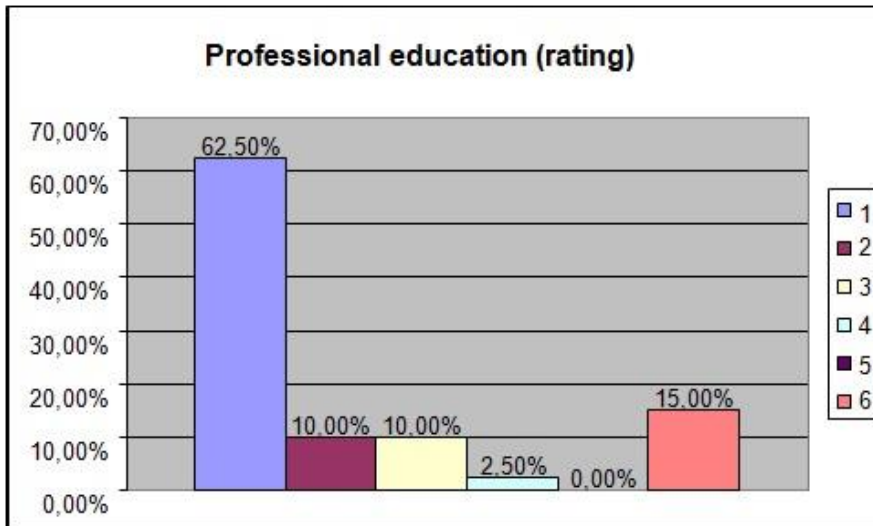


Figure 6
The professional education of the employees.
Source: own study

The experience acquired in the previous place of work, in a similar position is extremely important for 35% of the respondents (Figure 7).

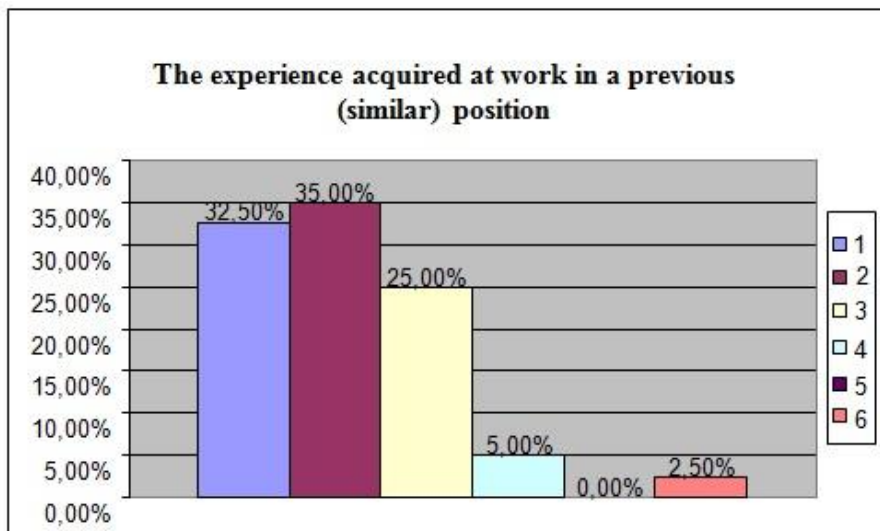


Figure 7
The experience acquired at work in a previous (similar) position.
Source: own study

One of the questions in the questionnaire addressed to the post-graduate students concerned the most useful “soft” competences at work.

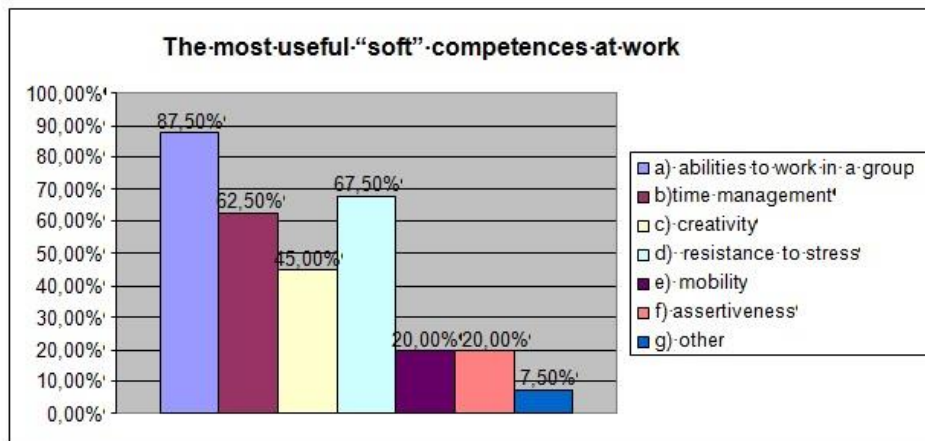


Figure 8
The most useful „soft” competences at work
Source: own study

While answering the question concerning “soft” competences at work, the respondents had a possibility to tick three answers (in the questionnaire). Analyzing the above figure, it can be noticeable that the ability to work in a team or group is what counts most, i.e. all the issues related to communication and interpersonal skills. The second position was occupied by resistance to stress, which is an integral element of work nowadays. Pace of work, the requirements, particularly in crisis situations, bring about that, to function efficiently in the organization, one must be resistant to stress. In the third position, there was management of time, i.e. the resource that cannot be stored or warehoused and that runs out irretrievably.

A lack of this competence brings about that work is affected by chaos and disorganization. The subsequent position was occupied by creativity, i.e. inventiveness combined with innovativeness. Creativity is frequently listed as a leading competence during recession, followed by selection of employees. On account of the editorial limitations of the present paper, only the selected competences, necessary to work in the companies, have been the focus of attention. The people subjected to the questionnaire were mostly the graduates of technical universities. Also, on the basis of the research results, it can be concluded that they have knowledge concerning competences and they are the ones possessing these competences.

Summing up, the results of the empirical studies presented in the paper refer only to a part of the research on the (engineering) competences desired by international

employers, the competences which are the evidence of the quality of education, the quality of education at the technical university. While analyzing the considerations in the paper, both the theoretical and empirical ones, the following conclusions can be drawn: the benefit from possessing “soft” competences is e.g. the ability to easily motivate oneself to coherent action, resistance to stress, assertiveness, ability to build authority and favorable personal image, ability to strongly affect thoughts, decisions and behavior of others, ability to inspire others to the activity compliant with one’s own vision and efficient team management. Possessing high “soft” skills is necessary for every person whose job is related to the contact with other people (e.g. managers), towards whom there has been applied the team form of work organization (e.g. a team of programmers, IT specialists or engineers). The most prestigious posts are connected with a great deal of independence and responsibility. Without correspondingly high abilities to manage themselves, employees have no opportunities to develop the path of their professional career, in spite of having formal qualifications. Therefore, the role of the university is not only specialized preparation of graduates but also equipping them with knowledge of all competences and indicating the way through which these competences can be developed. It will be much easier for the graduate to move in the international labor market (emigration of professionals) and, in the end, to be an efficient and creative organization member – a professionally competent graduate of a university. Employers are competing in regard to more and more creative ideas, which are to show them in the proper light, generate confidence among potential employees as for an attractive workplace. The development of information society and knowledge-based economy implies the necessity of expanding and updating the acquired knowledge and skills permanently. Even in the framework of one profession or position, the nature and scope of work and professional activities rapidly change. Not only meeting the demands of the modern labor market but also functioning in the society and adapting to changes is associated with possessing increasingly different skills and competences. For these reasons, in human capital analyzes, less and less attention is drawn to formal education and more and more attention – to actual competences of the population, including the level of knowledge and skills, fields of education and practical (professional) skills. In the framework of the activities for the benefit of increasing the level of competences and qualifications of citizens, there is planned a range of activities aimed at: improvement in accessibility and quality of education, development of creativity and innovativeness of learners, directing education and training towards the achievement of core competences. The majority of students of technical universities wish to obtain thorough and flexible preparation for further personal and professional career, also in the international labor market, which amounts to the need for the change in the approach of higher education to the achieved educational outcomes, taking into account more significantly the skills and competences necessary for professional career and personal life. In the last decades, there have been a number of important changes affecting the development of competences of university graduates. They mostly

refer to the changes taking place in the systems of higher education. The number of people using information and communication technologies and the share of working people pursuing occupations requiring the possession of higher level of competences is growing. The requirements concerning competences set by employers are also increasing. Consequently, the level of Polish human capital is rising, too, which is confirmed by the demand for Polish specialists in the international labor market. Summing up, universities should provide the conditions favorable for high quality of education and respond to the demand of the international labor market. International experiences confirm that there is a great demand for Polish engineers, particularly from the IT sector. In the paper, all the objectives assumed in the introduction have not been answered. Therefore, this will be undoubtedly the subject of another paper.

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