

THE ROAD TO ENTREPRENEURSHIP AMONG HUNGARIAN UNIVERSITY CITIZENS

Bedő Zsolt, Csapi Vivien, Posza Alexandra

INTRODUCTION

The word entrepreneur comes from the French word “entreprendre”, which means “to do something”, and it was originally used in the Middle Ages in the sense of a person who is active, who gets things done (Hoselitz, 1951). Entrepreneurs take personal risks in initiating change, and they expect to be rewarded for it (Harold, 1994). Entrepreneurship has been frequently documented in the literature of development economics as a critical factor in social and economic development opportunities of a country (Schumpeter, 1934; Baumol, 1968; Drucker, 1985), as the engine of economic growth and job creation (Wong et al., 2005), or as a response to the increasingly globalized, uncertain and complex environment we live in (Gibb, 2002).

This is the reason why entrepreneurial or entrepreneurship education has seen recently an exponential growth worldwide, especially in higher education (Kuratko, 2005). United States and United Kingdom are leaders in entrepreneurial education (Erkkilä, 2000), with a defined focus on the specific context of setting up a venture and becoming selfemployed (QAA, 2012, Mahieu, 2006). In Europe, the education of entrepreneurship focuses more broadly on personal development, mind-set, skills and abilities.

The question that never seems to go out of fashion is “Can entrepreneurship be taught?”. Among others, Kuratko (2005), Gorman et al. (1997) and Pittawy and Cope (2007) bring up evidences in favour of a “Yes” answer. According to them, with entrepreneurial education we can develop some level of entrepreneurial competencies in terms of knowledge, skills and/or attitudes (more about entrepreneurial competencies in chapter 1). There is a significant group of researchers against the learnability of entrepreneurship.

They argue that entrepreneurs are primarily born, not made (Nicolaou and Shane, 2009). We opt for a middle way. We believe that certain aspects of entrepreneurship cannot be taught, such as self-confidence or persistence. While we agree with Martin et al. (2013) who questioned the measurability of education, and stated in their work, that the difficulty lies primarily in measuring the effects of entrepreneurial education.

1. ENTREPRENEURIAL COMPETENCIES

Competency is a concept which includes the knowledge, attitudes, behaviors and skills which help a person capable of transforming his/her ideas into realities. Moore et al. (2002) go further and distinguish competence, competency and competencies. Competence relates to an area of work, competency relates to the behaviors supporting that area of work, and competencies relate to the attributes underpinning these behaviors.

By defining entrepreneurial competencies we prefer the definition of Lackéus (2013) who summarizes all the ups and downs of the assessment of the area. According to him, entrepreneurial competencies can be defined as knowledge, skills and attitudes that affect the willingness and ability to perform the entrepreneurial job of new value creation; that can be measured directly or indirectly; and that can be improved through training and development. The theory of entrepreneurial competencies is based on the examination of the behaviour, attitudes and knowledge of successful leaders, and combining the observed aspects to form a picture of an individual with superior “power”.

Authors often focus on the identification of different categories of entrepreneurial competencies (see Table 1). Summarized: competencies that have the strongest impact on

the growth of a company are self-efficacy, technical skills, personal marketing, innovation/production guidance and passion to work. The weaker competencies relate to the

company vision, organizational skills, growth objectives, skills of identification of opportunities and experiences in the business (Baum, 1994).

Table 1: Literature review of the categories of entrepreneurial competencies

Source	Categories of entrepreneurial competencies
Bartlett & Ghoshal (1997)	attitudes and personal characteristics, knowledge, experience and skills
Stuart - Lindsay (1997); Man, Lau & Chan (2002)	individual skills, knowledge, personal characteristics
Mitchelmore - Rowley (2010)	entrepreneurial skills (identification of potentially successful market niches, creating ideas, developing strategies, etc.), business and managerial skills (development of management systems, fundraising, operational and business skills, etc.), relationship skills (developing appropriate organizational culture, delegation skills, recruiting skills, etc.) conceptual and relational skills (skills of organization, customer management skills, interpersonal skills, communication skills, analytical skills, etc.).
Chandler - Hanks (1994), Shane - Venkataraman (2000)	competent entrepreneurs successfully manage the business and their management role
Chandler - Jansen, 1992; Herron - Robinson, 1993; Timmons et al., 1987	identification and selection of business opportunities and self-management
Hofer - Schendel, 1987	motivation and willingness to work long and hard
Smith - Morse (2005)	the importance of functional competencies (e.g. marketing, finance) and organizational competencies (e.g. skills of organizing, motivating, personal skills and people management skills).
Man et al. (2002)	identification of opportunities, maintaining relationships, conceptual skills, organizing skills, strategic skills and commitment.
Baum (1994)	knowledge, cognitive skills, self-management, administration, human resources, decision-making skills, management, identification of opportunities and further development, organizational skills (human relations and administrative practices).
Hood & Young (1993)	leadership skills, human relations skills skills of verbal and written communication, management skills, reasoning skills of the transaction, logical thinking, analytical skills, decision-making skills, goal setting, recruiting, preparing a business plan.
Vukasović (2013)	social networking

Source: Own construction

2. DEVELOPING ENTREPRENEURIAL COMPETENCIES THROUGH EDUCATION

Competencies are changeable and learnable, allowing intervention in terms of the selection, training and development. The development of entrepreneurial talent is important in sustaining a competitive advantage in a global economy that is brought about by innovation. Educational programs have significant impact on the entrepreneurial attitudes of potential entrepreneurs. Empirical evidence confirms that entrepreneurial programs have successfully imparted relatively higher confidence among the potential entrepreneurs to pursue their own line of entrepreneurial activities (Schroder and Rodermund, 2006).

This is why the identification of the entrepreneurial characteristics and the knowledge of the entrepreneurial profile of potential entrepreneurs have been gaining a growing importance in the development of entrepreneurship oriented educational programs and start-up processes. Research findings indicate that entrepreneurship education is the most relevant factor in what concerns the willingness to business creation. On the other side, personal characteristics have an important role in shaping motivation to start-up a business as well (Raposo et al. 2008). Chandler and Jansen (1992) found that education can contribute to the development of the competencies of business founders. Maxwell and Westerfield (2002) argue that an entrepreneur's innovativeness, which is an aspect of his/her competencies, depends largely on the level of his/her formal education as well as prior managerial experience. Bird (1995) suggests that it is worth looking at education, prior work experience, and industry experience as factors that could influence the development of entrepreneurial competencies. While Krueger and Brazeal (1994) also indicate that entrepreneurship education prior work experience could potentially improve one's skills and abilities, particularly in recognition of business opportunities.

Parker and Van Praag (2006) went further and found that education enhances entrepreneurs' performance both directly - with a rate of return of 13.7% - and indirectly, because each extra year of schooling decreases capital constraints by 1.18 percentage points. The indirect effect of education on entrepreneurs' performance is estimated to be 3.0-4.6 %.

The ultimate goal of entrepreneurial education is to develop entrepreneurial competencies among students. Various initiatives put varying emphasis on knowledge, skills and attitudes respectively. There is also a variety in focus of initiatives in terms of educating about, for or through entrepreneurship. Many initiatives apply a narrow definition of entrepreneurship (QAA, 2012; Mahieu, 2006) focusing primarily on opportunity identification, business development, self-employment, venture creation and growth, i.e. learning about, or for becoming an entrepreneur. Fewer initiatives apply a broader definition focusing on personal development, creativity, self reliance, initiative taking, action orientation, i.e. becoming entrepreneurial. What definition and approach is used profoundly affects educational objectives, target audiences, course content design, teaching methods and student assessment procedures, leading to a wide diversity of approaches. Nevertheless, many scholars state that there is only one way to learn to become entrepreneurial, and that is by learning through own experience.

University equips the potential entrepreneurs with those attitudes that help them to take responsibility of their own actions, be creative and innovative, and also to develop their creativity in their lives. Universities enhance entrepreneurial potential of the potential entrepreneurs (Van Burg et. al, 2008). Now entrepreneurship has become a prime university function (Fitzkowitz, 2004). The common perception of universities as merely institutions of higher learning is giving way to one where universities are viewed as engines of economic growth and development (Chrisman et. al. 1995).

Almost everywhere in the world universities are trying to focus on entrepreneurship – not least

because future pool of the entrepreneurs mainly consists of university students (potential entrepreneurs). Academic researchers have begun to explore the entrepreneurial interests of potential entrepreneurs. As a result of an exploratory study, Rodermund (2004) felt able to generalize that in Germany an entrepreneurial personality (low agreeableness and neuroticism, high extraversion, openness, and conscientiousness) and authoritative parenting styles were linked to the entrepreneurial competence of future entrepreneurs. According to him entrepreneurial competence could predict entrepreneurial interest which in turn relate to entrepreneurial career development in the potential entrepreneurs.

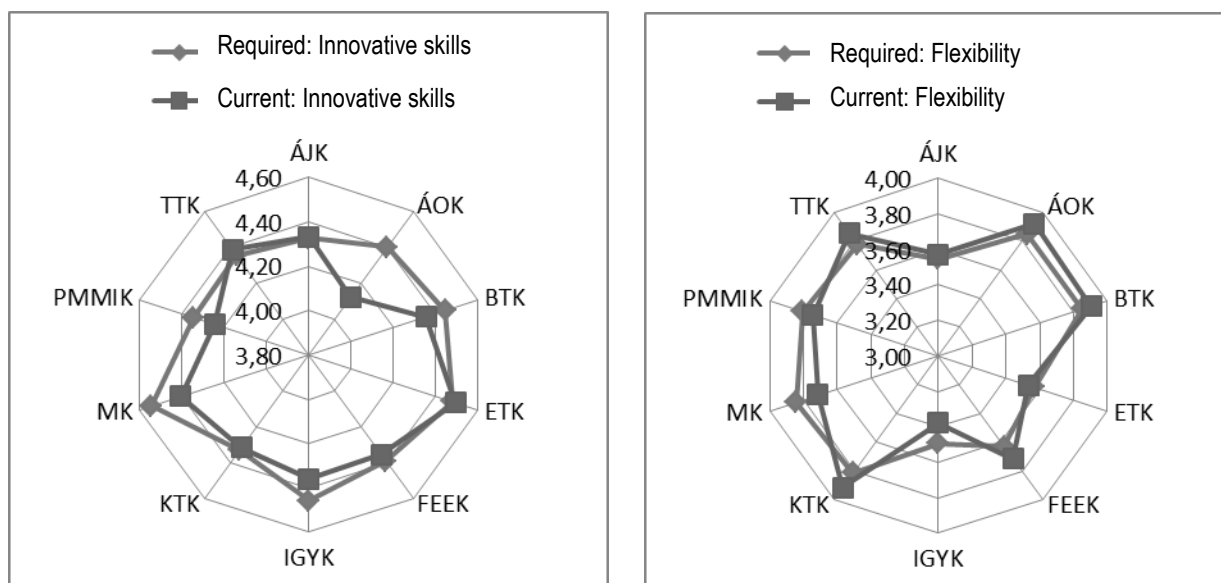
3. ALUMNI RESEARCH RESULTS

In the following section we provide results of our research conducted in 2014 with the aim of analysing the early effects of the incubation program and getting information about the entrepreneurial motivation of university citizens. The research was made among alumni of University of Pécs focusing on the innovative skills and flexibility competences. In our result

analysis we sorted the students in groups according to the above mentioned competence categories.

The opportunity competence group is one of the key competences of the successful entrepreneur (McClelland, 1987). One of the most important entrepreneurial roles is the competence of opportunity recognition and utilization. As shown on Figure 1, the analysis concentrates on existing and required competencies applied both as employees and as entrepreneurs. As it was anticipated from the employment patterns of graduated students at the University of Pécs, the required innovative skills only exceeded the existing competence level in case of the Faculty of Music and Visual Arts (MK), the Illyés Gyula Faculty (IGYK) and the Faculty of Engineering and Information Technology (PMMIK). The most self-employed students graduate at these faculties. Every education unit shows fallback in connection with flexibility competence except the Faculty of Law (ÁJK), The Faculty of Sciences (TTK) and the Faculty of Business and Economics (KTK). Students face difficulties in their later life situation due to lack of flexibility.

Figure 1: Opportunity competencies at University of Pécs

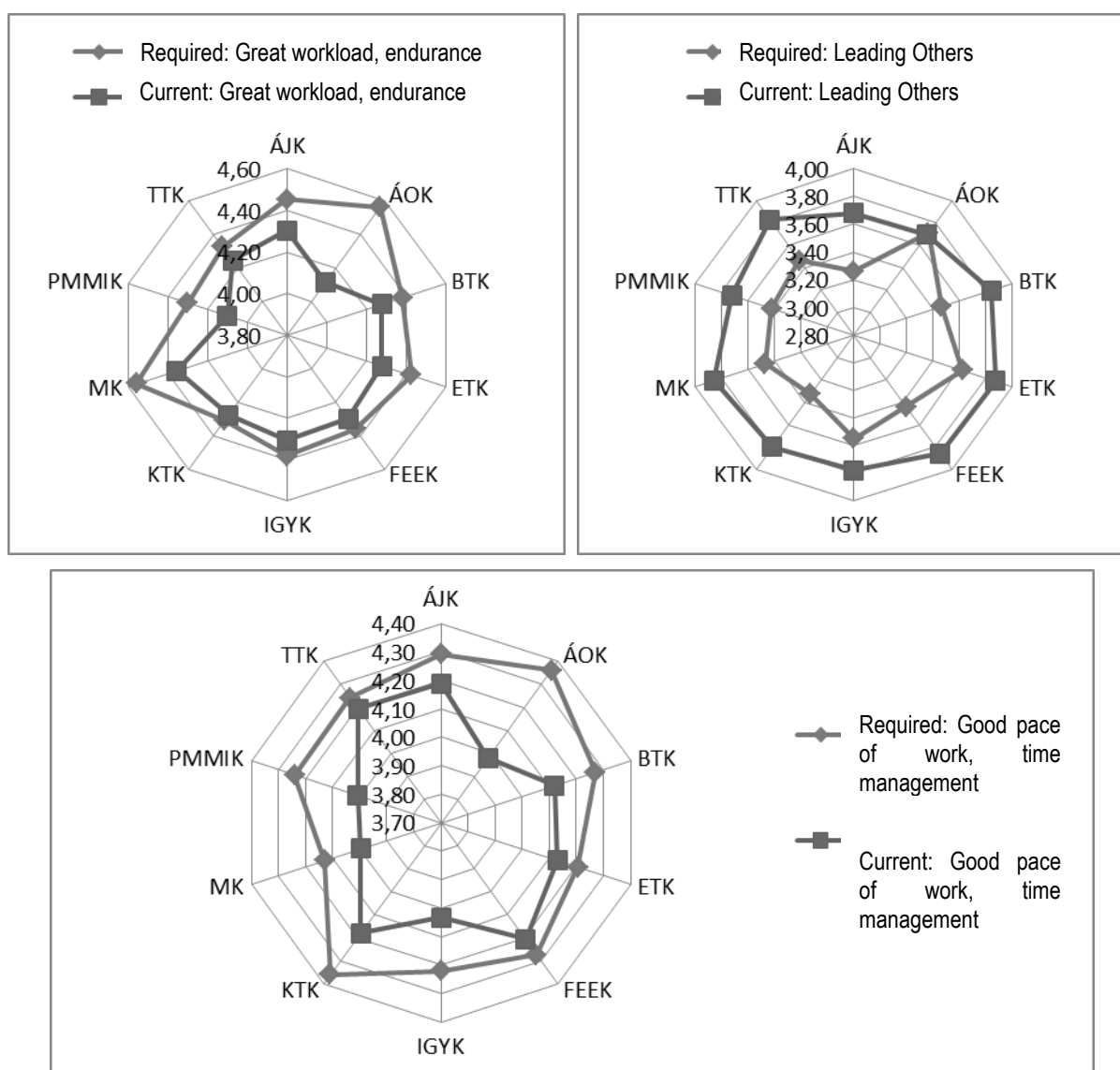


Source: DPR kutatás, PTE, 2014

The organizational competence group is similar to the management competence group it is necessary to operating a successful and efficient enterprise. Typical management competencies are efficiency orientation, pursuit of high quality work and the traditional skills of leading, monitoring, organization and development of outer-inner resources. The following competencies of the research were categorized in this group: great workload, endurance; leading others, good work organization and time management.

As shown in Figure 2, the students find the first years spent on the labour market exhausting. Students from all faculties especially from the Medical School (ÁOK), the Faculty of Music and Visual Arts (MK) and the Faculty of Health Sciences (ETK) noted that there is significant difference between the existing and required endurance level. However, students are not able to exploit their skill to lead others, except the Medical School (ÁOK). This is definitely in connection with the number of employed respondents.

Figure 2: Organizational competencies at University of Pécs



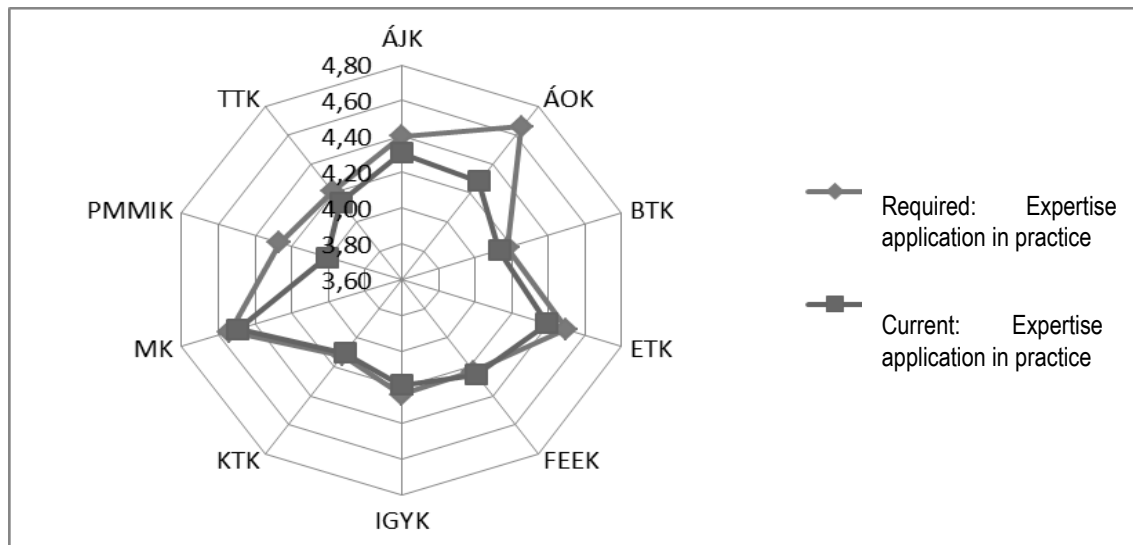
In the area of work organization and time management skills, the students also feel that

Source: DPR research, University of Pécs, 2014 they are lagging behind. After the flexible student years the tight pace of work and organizing work without guidelines challenge

ALUMNI of University of Pécs. Especially among students of the Medical School (ÁOK), the Illyés Gyula Faculty (IGYK), the Faculty of Engineering and Information Technology (PMMIK) and the Faculty of Business and Economics (KTK) there is a significant gap between the existing and the required level of competence.

The strategic competencies group contains the key competencies that are vital for self-employment. The entrepreneur should be able to define the goals of the own enterprise, select the way of achieving goals and apply the strategy that is necessary to realize goals. This long-term approach can be linked with the competence of expertise application in the practice.

Figure 3: Strategic competencies at University of Pécs



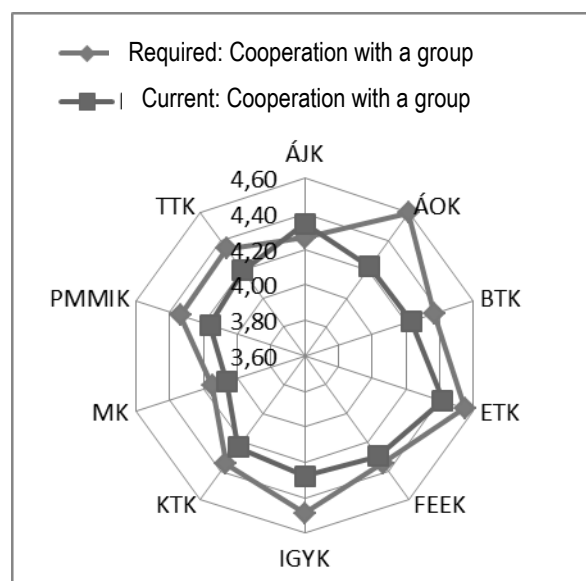
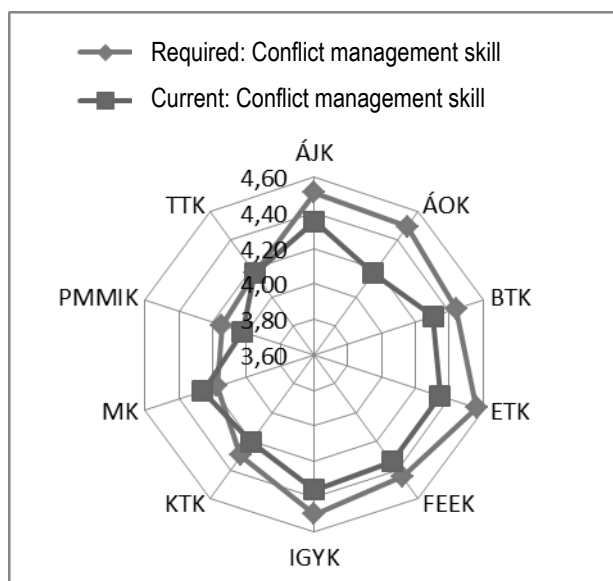
Source: DPR research, University of Pécs, 2014

As indicated in Figure 3, graduated students report significant lag between required and existing competences at the Faculty of Engineering and Information Technology (PMMIK), the Medical School (ÁOK), the Faculty of Health Sciences (ETK) and the Faculty of Law (ÁJK) but the cause of this problem can stem from different factors. In the case of Faculty of Engineering and Information Technology (PMMIK) the significant difference between required and existing practical knowledge raises the question about harmonizing the ratio of theoretical and

practical training with the expectations of the actual labour market.

The contact competence group includes the individual-individual and the individual-group level contact management, cooperation, building of confidence of communication and interpersonal skills. As seen in Figure 4, the current competencies seem to be falling behind the required level in this competence group. Students are not forced to deal with conflicts during their studies and positive effects of spreading teamwork are also still pending.

Figure 4: Contact competencies at University of Pécs



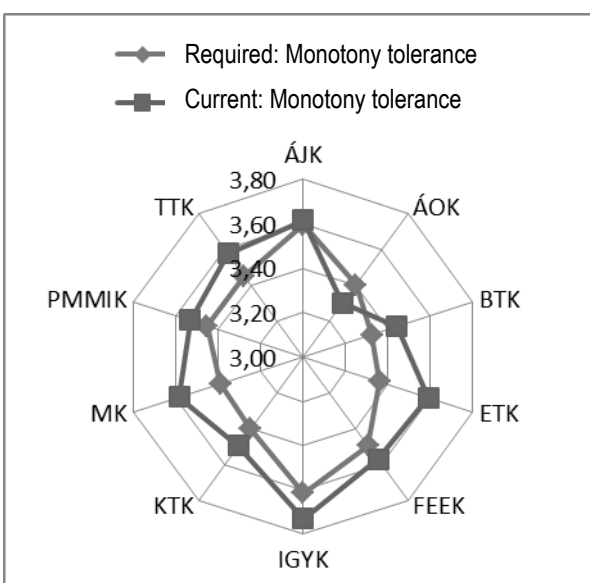
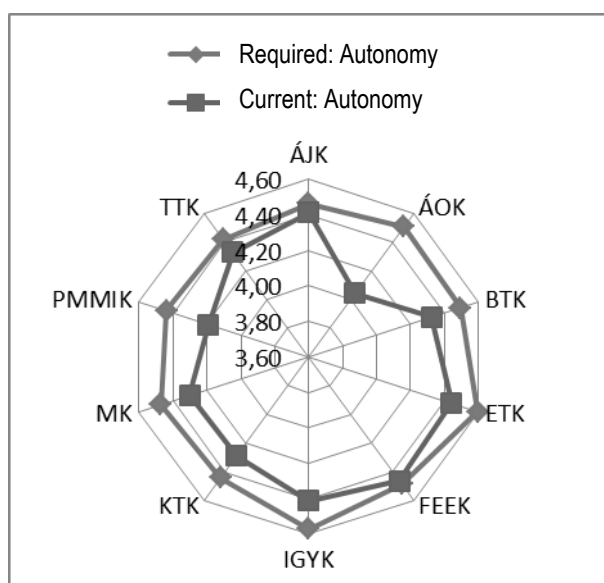
Source: DPR research, University of Pécs, 2014

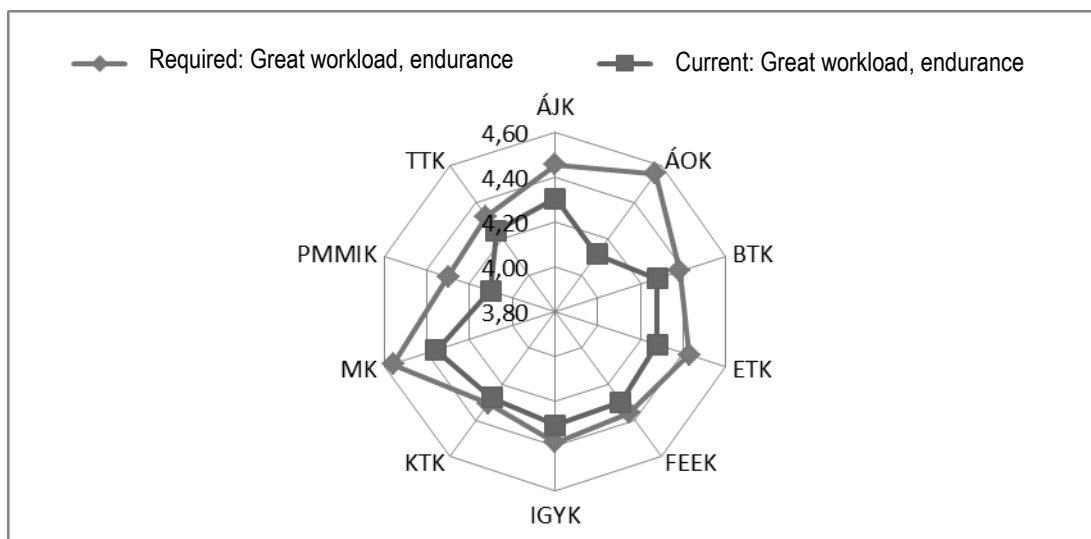
The commitment competence group covers the sum of competences required for the motivation of the individual. Successful entrepreneurs are often characterized by diligence, restlessness and proactivity. The surveyed competences are autonomy, endurance, monotony tolerance.

University of Pécs fear from the degree of autonomy when they enter into the labour market but they are able to deal with monotony which is part of their work. As it has been already indicated in connection with organizational competencies, workload of students is in sync with challenges of labour market at Faculty of Business and Economics (KTK) and Faculty of Science (TTK).

According to Figure 5 all graduates except from the Faculty of Sciences (TTK), Faculty of Adult Education and Human Resources Development (FEEK), Faculty of Law (ÁJK), ALUMNI of

Figure 5: Commitment competencies at University of Pécs

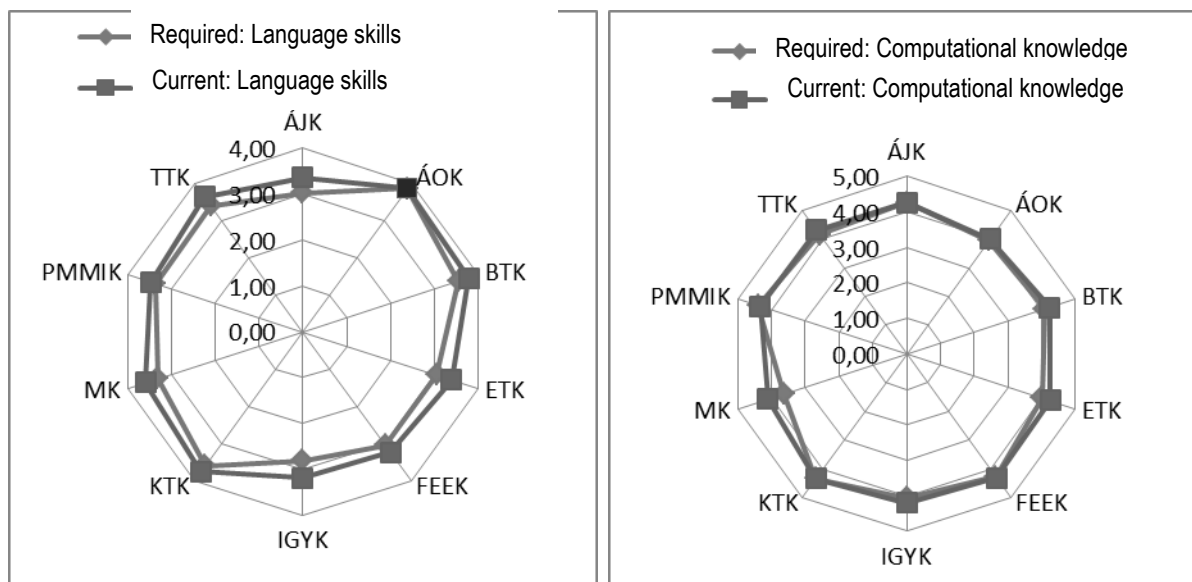


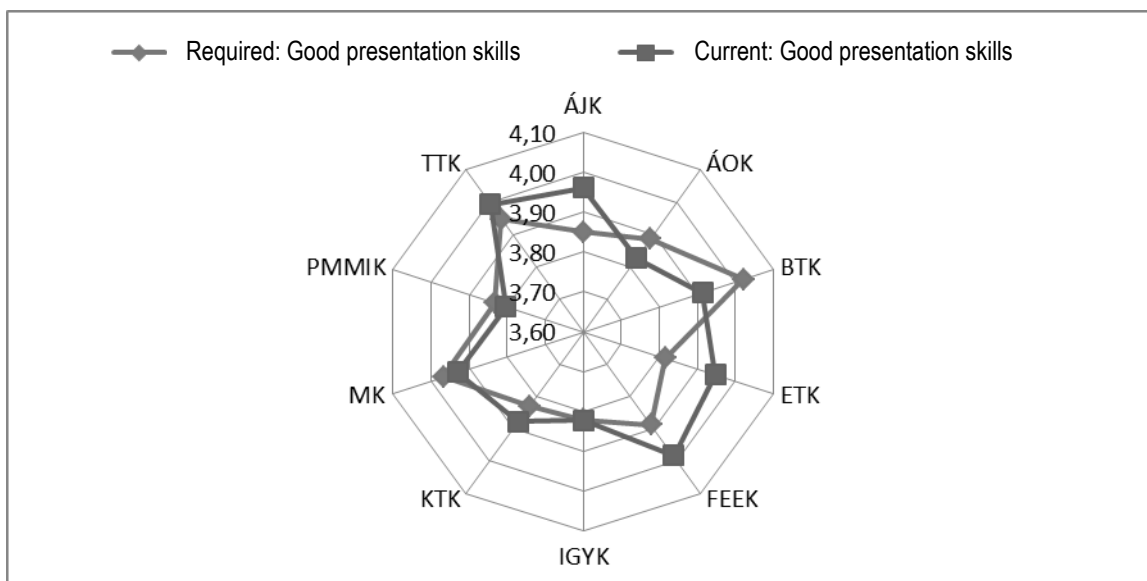


Source: DPR research, University of Pécs, 2014 (Figure 6). The results reflect the strength of University of Pécs in the field of theoretical education. The students are satisfied with their acquired knowledge because it is in accordance with the one their work require. In connection with the presentation skills, the students of Medical School (ÁOK) and Faculty of Humanities (BTK) reported a slight deficit.

Finally, the theoretical and the conceptual competency group contains norms of behaviour that are hard to define and identify but which are essential in a successful entrepreneurship. Analytical and cognitive thinking, learning, decision making and problem solving ability are some examples. We analysed only language skills, computational skills and presentation skills from the examined competences (as see

Figure 6: Theoretical, conceptual competencies at University of Pécs





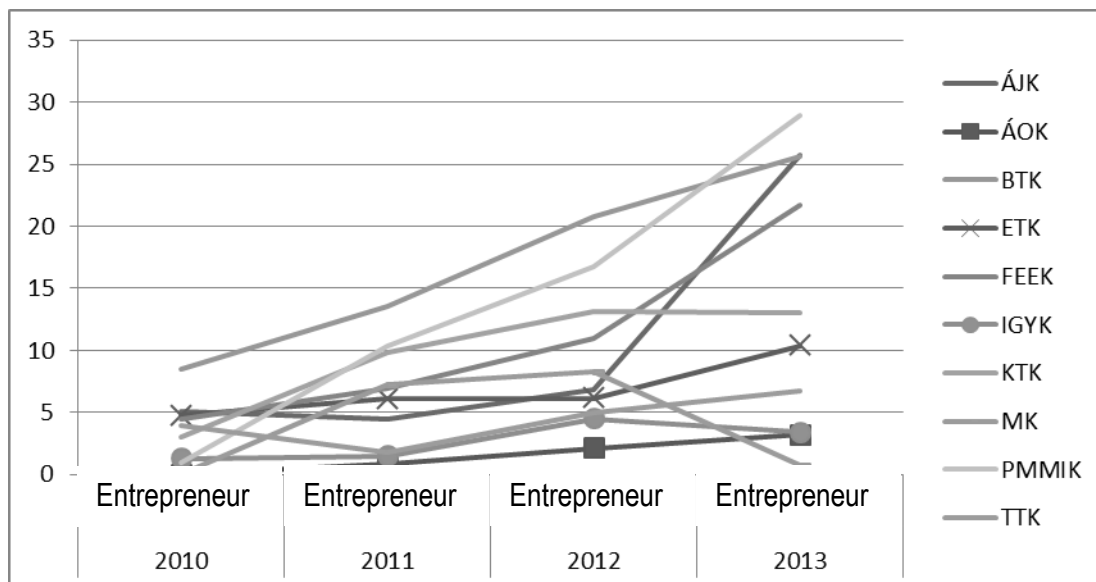
Source: DPR research, University of Pécs, 2014

4. ENTREPRENEURIAL UNIVERSITY

The younger generation of the 21st century becomes progressively entrepreneurial according to international results and researches of University of Pécs. As seen Figure 7, except Faculty of Music and Visual Arts (MK), the number of graduates who

become entrepreneurs increased progressively during the reference period. Most of them graduated at Faculty of Humanities (BTK) and Faculty of Engineering and Information Technology (PMMIK) but it is important to note that most of the graduates henceforward become an employees.

Figure 7: The number of entrepreneurs among ALUMNI of University of Pécs between 2010-2013



Source: DPR Research, University of Pécs, 2014 in life after getting the diploma, if their University has an incubation program. We tried to approach this thesis from defining entrepreneurship and the competences that

CONCLUSION

We, members of the University of Pécs, believe that students have a better chance to succeed

determine it. Our goal was to use a questionnaire based measuring system, which aim to identify the skills and competences required by our alumni compared with the skills and competences of the Hungarian job market and the number of students who become entrepreneurs after their university studies within five years. With this identification scheme we are able to monitor the long term effects of our incubation program. Since we launched our incubation program, our students have a more direct route to joining a startup or launching their own business. A university based incubator can connect the persons with entrepreneurial desire with experienced professionals. These professionals, our so called mentors advise them on creating new technology, marketing, funding and other kinds of sources. Our incubator is special, since we welcome local entrepreneurs as well as students from any faculty of the university who are excited to launch a new venture, or a new market.

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THE ROAD TO ENTREPRENEURSHIP AMONG HUNGARIAN UNIVERSITY CITIZENS

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Abstract

With our incubation program, which we launched about 3 years ago, we provide a unique service for our students and our colleagues at the University of Pécs. Anybody, who has a viable business idea, can apply for our program. We give the applicants a mentor, access to our networks and community, and an opportunity to pitch their idea before investors and venture capitalists. In this paper we tried to prove that our initiative is for the personal development and carrier opportunities of our students, for the development and wider national and international recognition of our university and for the greater good of our region.

Keywords: entrepreneurship; university; Hungary

JEL Classification: A20, L26