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## Entrepreneurship courses in spatial management studies in Polish universities

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### Abstract

The paper refers the results of analyses focused on the role played by entrepreneurship-related concepts and ideas in the structure of spatial management studies curricula in the light of the current entries in the national qualifications frameworks in higher education. The analysis was performed for 1<sup>st</sup> degree (bachelor's degree and engineering) and 2<sup>nd</sup> degree (master's degree) studies offered by various higher education institutions in Poland, and specifically, universities which form the *Union of Universities in Support for Developing Spatial Management Studies*. All the academic institutions covered by the research included studies in entrepreneurship or related topics in their curricula. The authors observed that their educational offer in the analysed domain was dependent on the level and type of studies and was the broadest in case of bachelor and master's degree studies but not so broad in case of engineering studies. Furthermore, a relationship between the scope of such offer and the profile of the university offering the spatial management studies was established.

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### 1. Introduction

Because of contemporary transformations on the labour market related to globalisation process of the world economy and building a knowledge-based economy, there is an increasing trend to include entrepreneurship-related topics in teaching programmes and curricula in the field of studies not related directly to economic sciences (see

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Cieślak, 2007; Entrepreneurship in higher..., 2008; Survey..., 2008; Wach, 2007). It is a direct consequence of the need to prepare graduates from various types of higher education institutions to operate in rapidly changing social and economic conditions by equipping them with knowledge and skills related to operations of enterprises as well as running one's business. Development of entrepreneurship-related competences at all stages of education seems particularly important from the point of view of the young generation on the brink of its professional activity, with social and economic environment which requires continuous adaptation to ever-changing market requirements and response to an increasing competitive pressure, in particular in difficult conditions of the economic crisis.

Thus, the goal of the research work was identification of the place and role of the entrepreneurship-related topics in the structure of the spatial management studies curricula offered on the educational market of the higher education institutions in Poland, taking into consideration the following degrees and forms of studies: 1<sup>st</sup> degree bachelor's and engineering studies and 2<sup>nd</sup> degree master's studies. The results of the research are based on an analysis of 18 curricula and study plans, with a particular emphasis on learning outcomes and courses offered by various academic centres in Poland by public schools which are members of the *Union of Universities in Support for Development of Spatial Management Studies*. The minimum requirement for including a university in the analysis was availability of its plan of studies with a specific number of course hours and/or ECTS points. As a result, 33 study plans supplied to the Union by 17 universities were included in the research. The study plans presented 33 of spatial management study programmes structured as follows: 1st degree bachelor's studies (12), 1st degree engineering studies (1) and 2<sup>nd</sup> degree postgraduate master's studies. In addition, in order to determine desired learning outcomes in the area of entrepreneurship within the framework of the spatial management programmes, 18 available educational programmes were analysed in detail. The research work was aimed at identifying a potential educational offer in the field of entrepreneurship in spatial management studies, based on the division into compulsory and facultative courses into. In addition, learning outcomes assumed by the universities in the spatial management studies were analysed in order to select those corresponding to education in entrepreneurship to check to what extent guidelines on the learning outcomes of entrepreneurship-related educations introduced in the *National Qualification Framework for Institutions of Higher Education* (Rozporządzenie..., 2011) are implemented directly in curricula. The article is limited to presentation of the most important conclusions from the analyses contrasted with a description of the character of spatial management studies in the context of division of fields of science and scientific disciplines in Poland.

## 2. Entrepreneurship in the system of education

Education in entrepreneurship offered in different studies is a *sine qua non* element of disseminating the European entrepreneurship culture (Implementing..., 2006), supporting entrepreneurship-oriented way of thinking and shaping a variety of entrepreneurship-related attitudes and personal or social competences, useful in every man's professional life. For this reason, entrepreneurship has been classified to 8 key competences in the European educational system, *en par* with such important competences as the ability to communicate in one's mother tongue and in a foreign language or mathematic and IT and technical competences (Recommendation..., 2006) and also classified to the learning outcomes for the higher education institutions in practically all fields of knowledge (Rozporządzenie..., 2011). The above confirms the important role attributed to entrepreneurship at all levels of education. Pointing to the high-ranking position of entrepreneurship in the system of education, Ziolo (2012) noted that development of entrepreneurial attitudes was necessary at all levels of institutional education and, subsequently, in the process of vocational and professional training and improvement throughout the entire period of a person's activity on the labour market and their social activity. He believes that the process should be supported by various economic entities and institutions operating in everyone's social and economic environment. The need to offer education in entrepreneurship and the importance of entrepreneurship in the social and economic development and in entering the job market by the young were also addressed by other authors (see Berger *et al.*, 2012; Cieślak, 2007; Jankowska & Pietrzykowski, 2012, 2013; Juchnowicz, 2005, 2007; Kuratko, 2005, Kurek & Rachwał, 2010, 2011; Pietrzykowski, 2011; Surdej & Wach, 2007; Świętek, 2012; Wach, 2007, 2008; Wachowiak, 2007). Wach (2007) raises that, according to recommendation of the European Commission based on the implementation of the Lisbon Programme (Implementing..., 2006) universities and schools of higher education, including technical universities, schools and colleges should include entrepreneurship as an important component of their curricula in different

studies and demand from students or encourage them to enrol in entrepreneurship courses. The above demonstrates clearly that entrepreneurship education should be included in the curricula of studies in economics as well as in curricula of other studies. Cieślík (2007) also emphasises that, nowadays, there is a pressing need to introduce courses in entrepreneurship-related areas in studies other than studies in economics. Piróg (2010, 2011) believes that it is necessary to come up with such vision of university or college studies to ensure that graduates' competences are as close as possible to employer's demand and enable a smooth entry of graduates to the job market, also in the form of self-employment. To achieve this goal, entrepreneurial attitudes must be developed. Here, American models are worth following and multiplying, as the USA have a very well developed system of entrepreneurship education at the university level (Entrepreneurship in American..., 2010), as mentioned by Wach (2007) and Cieślík (2007).

In the light of the definition given by the European Commission, competences specified as "the sense of initiative and entrepreneurship" mean a person's ability to put ideas into action. They include creativity, innovation and taking risks as well as the ability to plan projects and run them to achieve planned goals. They support individuals in their private and social daily life but also at work so that they can be aware of the context of their work and the ability to take opportunities that come; they are underlying reasons for more concrete skills and knowledge needed by those who take social or commercial projects or participate in such projects. They should involve ethical value awareness and promote good management (Key competences..., 2007). Such point of view that entrepreneurship takes on educational needs in school and non-school forms of education is commonly taken by many authors (including Berger *et al.*, 2012; Borowiec & Rachwał, 2011; Dorocki, Kilar & Rachwał, 2011; Juchnowicz, 2005; Kurek & Rachwał, 2010 & 2011; Kurek, Rachwał & Szubert, 2012; Rachwał, 2004a, 2004b, 2005, 2006; Wach, 2007; Ziolo, 2012; Ziolo & Rachwał 2012). The definitions emphasise the approach to entrepreneurship as to a personality feature. However, entrepreneurship is analysed on a broader basis in scientific research, in particular the research in economic and geographic sciences. According to Wach (2012), entrepreneurship is defined in at least four main approaches:

- entrepreneurship as a personality function (attitude),
- entrepreneurship as a function of a private entrepreneur (including readiness to start and run one's business),
- entrepreneurship as a function of micro, small and medium-sized enterprises,
- entrepreneurship as a function of managerial activities.

They have been used in the research work as the criteria for identifying courses and learning outcomes in the field of entrepreneurship in curricula.

### 3. Specificity of the spatial management studies

Studies in spatial management offered by Polish universities as 1<sup>st</sup> degree studies (in the form of 3-year bachelor's degree studies and 3.5-year engineering studies) and 2<sup>nd</sup> degree studies (2-year master's degree studies) are not typical studies in economics or management. Apart from economics and management education, the studies cover geography and technical issues, chiefly in the area of urban planning and cartography. Formally, the studies are based on at least 3 areas and 5 scientific disciplines (specified in accordance with the Polish division of sciences – *Regulation of the Minister of Science and Higher Education of 11<sup>th</sup> August 2011*; *Rozporządzenie...*, 2011), i.e.

- 1) economic sciences, disciplines: economics and management sciences,
- 2) Earth sciences, discipline: geography,
- 3) technical sciences, disciplines: architecture and urban planning, land surveying and cartography.

These domains remain within the domains of social, natural and technical sciences.

Depending on the type of university or college, these could be also other areas and scientific disciplines e.g. civil engineering or, at universities of agriculture, the field of agricultural or biological sciences, in particular studies in environmental protection. However, according to the guidelines for offering the studies, developed during the works of *the Union of Universities in Support for Developing of Spatial Management Studies*, these are interdisciplinary studies, covering at least two of the above-mentioned core domains (see Kudłacz, 2013).

For many years, the studies would need to meet the educational standards set by the Ministry of Science and Higher Education (Rozporządzenie..., 2007), laying down the general requirements for the minimum number of hours and ETCS points, graduate's qualifications and the framework learning content. 1<sup>st</sup> degree studies covered the so-called basic (elementary) content in mathematics, statistics, economics, economic geography, technical and planning drawing, social sciences, urban planning, jurisprudence and, in case of engineering studies, engineering graphics and physics. As regards their curricula, they covered the basics of the spatial management, natural, social and cultural and legal conditions of the spatial management, economics of cities and regions, local government, urban planning, spatial planning and technical infrastructure planning, geographic systems of spatial information, municipal development strategies, real property administration, land surveying and cartography, construction, the rules for designing and revitalizing urbanized areas. According to the education and learning content standards, 2<sup>nd</sup> degree (master's degree) studies covered: theory of systems, protection of the environment, the theory of organisation and management, spatial management in the EU, territorial marketing, regional policy, legislative techniques in planning, planning urban development and models in spatial management. Furthermore, requirements for physical exercise, foreign language courses and traineeships were defined. It is worth noting also the important role of ICT courses, which can be regarded as a catalyst for the evolution of business management (Davidavičienė, 2008).

While, in the light of applicable regulations, it is no longer required to follow the educational standards and organizational units of Polish universities having scientific powers to confer the degree of a *doktor habilitowany*, are free to develop their curricula, without the approval of the curricula by the Ministry of Science and Higher Education, in practice, all such studies offered by universities include the learning content mentioned in the standards.

Note that the educational standards did not refer directly to any entrepreneurship-related content. New regulations, related to implementation of the *National Qualification Framework for Higher Education* (Rozporządzenie..., 2011) on the one hand offer more freedom to independent universities in development of their curricula and study plans but, on the other hand, have introduced provisions on delivering the so-called learning outcomes in field of studies. The process involved introduction of provisions on achieving outcomes in the area of entrepreneurship in nearly all areas of education, not only in the area of social sciences, to which economics and management are also classified. They cover knowledge as well as social skills and competences, while in case of skills, no direct reference to entrepreneurship is made. This has been written down also in the form of the following learning outcomes (Rozporządzenie..., 2011): [student] knows the general rules for setting up and developing forms of individual entrepreneurship, based on knowledge from the area of science and scientific disciplines appropriate for the studies and demonstrates entrepreneurial approach and way of thinking.

Note that entrepreneurship should occupy a special position in spatial management studies. It is because of the above-mentioned formal provisions of the *National Qualification Framework for the Higher Education* but mainly due to the fact that its role in developing firms (e.g. Rachwał, 2010; Szarucki, 2011) as well as social and economic spatial systems, largely at the local and regional level (Acs, 2006, 2010; Acs & Szerb, 2007; Acs, Desai & Hessels 2008; Bayineni, 2005; Duarte & Diniz, 2011; Hall, Daneke & Lenox, 2010; Lal & Clement, 2005; Naudé, 2008; Ziolo, 2006, 2007), cannot be underestimated and, it also affects improvement in the quality of life and the standard of living (Winiarczyk-Rażniak, 2008). The above is a direct result of a growing importance of an entrepreneur's role in the contemporary world. Such an entrepreneur takes specific decisions on the location and development directions of enterprises. In consequence, such enterprises affect development or recession of such spatial systems. Furthermore, economic, social and cultural transformation processes and changes in the environment in various types of spatial systems arise from taking decisions based on entrepreneurship of individuals or teams, including entrepreneurs and representatives of local and state governments. Thus, entrepreneurship may be approached as one of the core change-promoting factors, which contributes to improving the competitive position of the systems (Ziolo, Rachwał 2012). Therefore, the European Union wishes to boost entrepreneurship as part of its strategy to transform its economy and build up its future economic and competitive strength (Survey... 2008).

#### **4. Analysing plans of studies – key results**

The goal of the research was to identify the educational offer in entrepreneurship in spatial management studies. During the first stage of the research, entrepreneurship courses were selected from all courses offered by educational institutions in order to come up with the initial, potential offer of education in entrepreneurship in the discussed

studies. As stage two, the potential offer was revised in terms of the actual availability of entrepreneurship courses to student, i.e. a non-compulsory character of the courses was taken into account as well as allocation of some courses exclusively to some specific specialization or several facultative courses overlapping. This approach led to identification of the actual offer of entrepreneurship education in the spatial management studies. As the stage three, available curricula were analysed thoroughly to determine the share and the type of learning outcomes of entrepreneurship education among all the expected learning outcomes in the spatial management studies against the areas of education defined in the *National Qualification Framework for the Higher Education Institutions*.

Two categories of entrepreneurship-focused courses were selected from all courses offered in 33 analysed study plans: 1) courses in entrepreneurship and 2) entrepreneurship-related courses. For the purpose of selecting a course and classifying it to the first or the second category, it was assumed that the name of a course corresponded fully to the course content. Here, note that some entrepreneurship-related content could form a part of other courses, whose name does not refer to entrepreneurship and, for this reason, they were not taken into account in the first and second part of the research on the potential and actual offer of entrepreneurship courses; however, they were included in the third part of the research focused on analysing educational outcomes, indicating those related to entrepreneurship and corresponding to the courses whose name may but does not need to mention entrepreneurship.

The adequacy of a course name/title in terms of classifying the course to the first or second category of entrepreneurship-related courses was assessed in accordance with 4 main approaches in entrepreneurship-related research mentioned above after Wach (2012).

On the basis of the above-described criteria, 142 courses were selected; of which 102 were classified to the 1<sup>st</sup> category of entrepreneurship courses while 40 were classified to the entrepreneurship-related courses (see Table 1). Entrepreneurship courses of the category 1 prevailed, representing nearly 80% of the total number of entrepreneurship courses offered at 1<sup>st</sup> degree bachelor's studies and nearly 70% at 1<sup>st</sup> degree engineering studies and 2<sup>nd</sup> degree master's studies. Note that distribution of the first category courses (entrepreneurship courses) was predominantly equal in terms of their compulsory and facultative character (Table 2).

Table 1. The number of entrepreneurship and entrepreneurship-related courses by degrees and form of studies; compulsory/facultative

Degree/form of studies	Number of compulsory entrepreneurship courses	Number of facultative entrepreneurship courses	Entrepreneurship courses total	Number of compulsory entrepreneurship-related courses	Number of facultative entrepreneurship-related courses	Entrepreneurship-related courses total	Both categories of compulsory and facultative courses TOTAL
1 <sup>st</sup> degree bachelor	25	24	49	7	7	14	63
1 <sup>st</sup> degree engineering	18	11	29	4	10	14	43
2 <sup>nd</sup> degree master	13	11	24	7	5	12	36
Total	56	46	102	18	22	40	142

Source: own study based on study plans.

Table 2. The number of entrepreneurship courses and entrepreneurship-related courses by compulsory and facultative

Course category	Compulsory courses	Facultative courses
In entrepreneurship	56	46
Entrepreneurship-related	18	22
Total	74	68

Source: own study based on study plans.

In the research, the structure of courses in entrepreneurship was defined (entrepreneurship courses and entrepreneurship-related courses) in terms of their share in the total number of hours and ECTS points of all courses offered by the analysed studies in spatial management. The highest number of hours and ECTS points in this

category was reported for 1<sup>st</sup> degree bachelor's studies, representing 12.1% of all course hours offered at the studies and 12.3% of ECTS points. Similar results were reported for 2<sup>nd</sup> degree master's studies and represented: 12.5% and 9.9%, respectively, with much lower shares for 1<sup>st</sup> degree engineering studies at 6.1% and 5.7%, respectively. Note that 1<sup>st</sup> category of courses i.e. entrepreneurship courses dominated in all degrees of studies both in terms of their share in the total number of hours and ECTS points. In total, at all studies covered by the analysis, the share of entrepreneurship course hours (entrepreneurship and entrepreneurship-related courses) represented 9.8% of the total hours of all offered courses and 9.1% of ECTS points of the total points of all the offered courses (table 3). These shares may be considered a potential offer in entrepreneurship education at the analysed spatial management studies.

Table 3. Number of hours and ECTS points of entrepreneurship and entrepreneurship-related courses in the total number of hours/ECTS points of all courses by the degree and form of studies

Degree/form of studies	Entrepreneurship courses (hours) in the total number of hours (%)	ECTS points given in entrepreneurship courses in total number of ECTS points (%)	Entrepreneurship-related courses (hours) in the total number of hours (%)	ECTS points given in entrepreneurship-related courses in total number of ECTS points (%)	Both categories of courses (hours) in the total number of hours (%)	ECTS points for both categories of courses in the total number of ECTS points (%)
1 <sup>st</sup> degree bachelor	9.9	9.7	2.2	2.6	12.1	12.3
1 <sup>st</sup> degree engineering	4.5	4.2	1.6	1.5	6.1	5.7
2 <sup>nd</sup> degree master	8.2	6.6	4.3	3.3	12.5	9.9
Total	7.4	6.8	2.4	2.3	9.8	9.1

Source: own study based on study plans.

## 5. Analysing outcomes of curricula – key results

In addition, the research covered an analysis of the outcomes of 18 supplied curricula in terms of defining the share of their anticipated outcomes of education in entrepreneurship offered by the spatial management studies. The analysis is based on the methodology presented in an article published in *Journal of Curriculum Studies* (Berger et al. 2012). The analysis led to identification of two paths for including the entrepreneurship issue to the educational outcomes of the spatial management studies: 1) a direct reference to the educational outcomes in entrepreneurship in the curricula and 2) an absence of the direct reference in the curricula to the outcomes in entrepreneurship. The direct references of the outcomes concerned chiefly universities of economics (such as the Warsaw University of Economics, the University of Economics in Kraków, the University of Economics in Katowice, and the University of Economics in Poznań) as well as the Pedagogical University in Kraków. However, note that general guidelines on entrepreneurship as a part of learning outcome descriptions are often identical or similar to those describing learning outcomes for a field of study.

E.g. these would be specification of:

### 1) Knowledge:

- Knows the basics of economics, setting up and developing forms of entrepreneurship, including those related to spatial management,
- Has basic knowledge on how the economy and local government entities work at the local and regional scale, is familiar with the principles for developing and growing forms of individual entrepreneurship, including running business and management
- Has basic knowledge on various paths for own development and opportunities to participate in various forms of scientific and professional activity, including the possibility of running a spatial planning business,
- Is familiar with the rules for developing private entrepreneurship in spatial planning or social and economic planning, is familiar with the core copyright concepts,

- Knows the principles for developing and setting up private entrepreneurship, using knowledge from the areas of science and scientific disciplines in the field of spatial management,
- 2) Skills:
- Can give a correct interpretation of elements of the theory of economy and finance and apply them in day-to-day spatial management
- 3) Competences:
- Can think and act like an entrepreneur, understands the need of life-long learning and the need to promote entrepreneurship and attitudes supporting engagement in development, propagation and implementation of social and economic projects,
  - Can think and act as an entrepreneur and skilfully balance private and public interests in spatial management,
  - Demonstrates entrepreneurship and critical assessment of own knowledge and skills as well as openness to changes and the awareness of the need to adjust to the ever-changing environment.

Note that, among the analysed curricula containing direct references to entrepreneurship in the learning outcomes of their studies, show domination of outcomes belonging to two categories: social knowledge and competence, while it was clearly found that skills corresponding to these categories were deficient. Also, in some universities, it was found that spatial management studies curricula did not refer in any form whatsoever to the learning outcomes in the area of entrepreneurship in spite of the existing guidelines on the learning outcomes in the field of studies in the *Regulation of the Minister of Science and the Higher Education* (Rozporządzenie... 2011), most likely assuming their inclusion for implementation to other courses, which are not directly related to entrepreneurship.

## 6. Conclusions

Summarising the topic: all the analysed universities having studies in spatial management in their curriculum offered entrepreneurship courses or entrepreneurship-related courses and the offer of the courses was predominantly dependent on the degree and form of studies, the broadest at 1st degree bachelor studies and 2<sup>nd</sup> degree master's studies and definitely narrower at 1<sup>st</sup> degree engineering studies. Furthermore, a dependence between the volume of the offer and the profile of the higher education institution offering the spatial management studies was established, in favour for universities of economics and departments of economics at other universities, which should be considered natural. However, note that these institutions do not limit their curricula to one area of social sciences and economics only, taking the demand for the multi-area approach to the spatial management studies, set as a standard in the *Union of Universities*, into account. While the analysed institutions offering spatial management studies offered entrepreneurship or related courses, not all of them had defined the expected learning outcomes in entrepreneurship in their learning outcomes in the field of study in the *Regulation of the Minister of Science and Higher Education*. In addition, the existing phrasing of the learning outcomes in the field of entrepreneurship is somewhat imperfect, predominantly stemming from *verbatim* repetition of the learning outcomes in the field of studies and from uneven distribution of the expected learning outcomes in three categories: knowledge, skills and social competence, with a definitely too low share of competitions addressing acquisition of skills formulated in the Regulation, which cannot be underestimated from the point of view of graduates entering the labour market. Except for the Pedagogical University in Krakow, specialised entrepreneurship-related modules are not offered in the analysed field of studies. The above-presented analyses indicate a possible broader introduction of entrepreneurship and entrepreneurship-related topics in the spatial management studies in universities and higher education institutions other than universities of economics which, as it seems, could be beneficial from the point of view of graduates' transit to the labour market.

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