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The role of higher education in developing students' entrepreneurial intentions¹

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ABSTRACT

RESEARCH OBJECTIVE: The objective of the present paper is to determine the role of higher education in shaping students' entrepreneurial intentions and attitudes. The analysis encompassed opinions of students representing two academic environments.

Research problem and methods: The research problem presents in determining the extent of discrepancy between the level of entrepreneurial intentions and attitudes of students representing the selected universities. Authors applied the diagnostic poll method with questionnaire technique. A comparative analysis of students' declared inclinations towards entrepreneurial behaviour and pro-entrepreneurial attitudes was conducted.

Research process: Authors begin with a theoretical introduction into the research issue. Next, empirical study's results are presented. The analyses focus

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on determining the level of diversity as regards entrepreneurial behaviours of students representing the selected universities and establishing determinants of their pro-entrepreneurial attitudes. The selected characteristics of students' entrepreneurial intentions were taken into consideration- plans regarding an own business, competences fundamental for undertaking own initiatives and consequences associated with running an own business, as well as inclinations towards taking various types of extra-curricular activities.

Research results: As a result of the analysis, authors came to the conclusion that universities do not undertake sufficient part in shaping students' entrepreneurial intentions and attitudes.

Conclusions, innovations, recommendations: In conclusion, authors recommend specific educational and advisory programs in entrepreneurship to be implemented at the selected universities. They also advocate the application of active forms of teaching, which would foster students' entrepreneurial intentions and attitudes.

→ KEYWORDS: UNIVERSITIES, ACADEMIC ENTREPRENEURSHIP, STUDENTS' ENTREPRENEURIAL INTENTIONS

Introduction

The subject matter of the paper fits the discussion of shaping students' entrepreneurial competences well. The competences, required on labour market at present, ought to be shaped in the course of university studies (Targalski, 2003; Wach, 2015). As a consequence, familiarity with factors facilitating an individual's entrepreneurial activities seems crucial in the process of curricula's development.

The issue of entrepreneurial intentions is significant in the studies of entrepreneurship. This is due to the fact that entrepreneurial intentions precede particular behaviours, which in future, may result in businesses being established (Pawlak, 2015; Tomski, 2015). Consequently, identification of factors determining entrepreneurial intentions and attitudes, and the evaluation of universities' role in this respect, seem critical (Safin, 2014).

Due to its particular role in economic practice, education supporting entrepreneurship has been recommended by the EU for several years (Płaziak & Rachwał, 2014; Rybkowski, 2013; Wach, 2014; Wach, 2015). Entrepreneurship 2020 Action Plan constitutes a vital document as regards this issue. The document indicates the necessity of a greater involvement of universities in education for entrepreneurship, among others

(The Commission to The European Parliament, 2012). The idea of actions facilitating academic entrepreneurship was also reflected in the National Qualifications Framework for Higher Education (Dorocki & Borowiec-Gabryś, 2014).

Decisions associated with undertaking various activities by individuals may be influenced by several internal factors, as well as by the interaction with direct and indirect surrounding environment (familial circumstances, environment, type and course of education). The literature of the subject emphasises that the initial phase of business activity encompasses the emergence of the individual's entrepreneurial intentions. The academic context plays a significant role in the process (Kurczewska, 2010; Safin, 2014; Tomski, 2015).

The main objective of the present study was the diagnosis of students' pro-entrepreneurial intentions and attitudes understood as determinants of behaviours leading to the establishment of a business. It is agreed that the effectiveness of shaping the intentions and entrepreneurial attitudes constitutes a resultant of an individual's attributes (personality traits, motivation), their training and interactions with the surrounding environment. Higher education is assigned a significant role in the process. The relevance of the present study is acknowledged by the fact that familiarity with entrepreneurial intentions may facilitate the development of effective curricula as regards entrepreneurship.

The present study analyses various characteristics of students' entrepreneurial intentions i.e. plans pertaining to operating a business, competences critical for undertaking own initiatives, and consequences perceived as associated with running a business, as well as the inclination towards undertaking various types of extra-curricular activities.

The role of higher education in the process of shaping an individual's entrepreneurial intentions was analysed from the perspective of students of the following courses at selected universities in Lublin: physical education, and public health. It was agreed that the diversity of respondents' opinions may indicate the significance of curricula in the process of shaping initiatives and entrepreneurial attitudes of students representing selected universities. The validity of the comparative study was acknowledged by the fact that, in line with the National Qualifications Framework (NQF), the courses selected for evaluation represent the same academic disciplines (medical sciences, health sciences and physical culture; the Regulation of the Ministry of Science and Higher Education, Journal of Laws no. 253). As a consequence, graduates of these courses are obliged to achieve similar learning outcomes (also as regards entrepreneurial competences.

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The undertaken analyses consisted of defining the level of diversification as regards the inclination towards entrepreneurial behaviours of students from selected universities and determining their pro-entrepreneurial attitudes.

Research methods

The present study constitutes an attempt at the evaluation of entrepreneurial intentions of 230 students graduating from graduate studies at the University of Physical Education in Warsaw (AWF), Biała Podlaska branch, and Medical University of Lublin (UM), who studied at courses representing health sciences and physical culture. Empirical data was collected in 2014-2015 by means of a diagnostic poll method and a random survey. Sampling was purposive and comprehensive.

When characterising respondents' structure (Tab. 1), the dominance of students representing the University of Physical Education (77%) is clearly visible. Men represented a slight majority of respondents (55%). A decisive majority of respondents (89%) were under 25 years old. The unemployed prevailed (76%). Unemployment concerned students of Medical University more frequently.

Table 1. Respondents' structure

	UM		AWF		Total	
Criteria for Classification	N	%	Ν	%	N	%
University	53	23.0	177	77.0	230	100.0
Sex:						
Females	38	71.7	66	37.3	104	45.2
Males	15	28.3	111	62.7	126	54.8
Age:						
Under 25 years	53	100.0	152	85.9	205	89.1
25 years and over	0	0.0	16	9.0	16	7.0
Professional situation:						
Employed	3	5.7	53	29.9	56	24.3
Unemployed	50	94.3	124	70.1	174	75.7

Key: UM – Medical University of Lublin, AWF – University of Physical Education in Warsaw, Biała Podlaska branch

Source: own study on the basis of research results.

In order to establish answers regarding the issue of higher education's role in shaping entrepreneurial initiatives of students from the selected universities, a comparative analysis of respondents' inclinations towards entrepreneurial behaviours and their pro-entrepreneurial attitudes was conducted. Statistically significant differences were evaluated by means of Chi-square test of independence. It was agreed that p < 0,05 denoted statistically significant differences.

Academic entrepreneurship- selected theoretical aspects

Higher education in 21st century plays a significant role in the emergence of societies and knowledge-based economy. More and more frequently in the contemporary reality, the academia put the mission of an entrepreneurial university into practice. This is manifested in the active approach towards changes in the surrounding environment, promoting cooperation with businesses, encouraging young people to undertake self-employment, as well as in supporting entrepreneurship leading to commercialization of knowledge and research results (Binkauskas, 2012; Schulte et al., 2013; Howells et al., 2012). Academic entrepreneurship also denotes the involvement of the academia in commercial activities (Guliński & Zasiadły, 2005). Such activities are facilitated by the autonomy of universities, which allows the culture of development and innovation to be formed or the spirit of entrepreneurship to emerge (Okoń-Horodyńska, 2008). Supporting all forms of activities undertaken by students and the development of suitable organisational infrastructure stimulating students' entrepreneurial initiatives (technology transfer centres, science parks, business incubators) are vital in this respect (Shattock, 2005; Brennan & McGowan, 2005; Osiri & McCarty, 2013).

The entrepreneurial character of the modern universities' mission results from various types of external factors i.e. a greater demand for knowledge and research results on the part of businesses, and a shift in expectations of the society as regards universities (Wiśniewska, 2014).

Popularisation of the entrepreneurial model coincided with the implementation of the Bologna Declaration's guidelines associated with the establishment of the European Higher Education Area. It was agreed that if European economy is to match international competition, generations of entrepreneurs ready to introduce innovations, experiment, search for business opportunities or take risks must emerge.

The issue of entrepreneurship appeared in curricula relatively recently. The Recommendation of the European Parliament and of the

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Council (2006) on key competences indicates entrepreneurship as one of the key competences defining an individual's ability to put ideas into practice. Broadly understood, entrepreneurship encompasses a series of features i.e. creativity, innovation, risk-taking, planning and coordination of undertakings according to scheduled objectives. Entrepreneurship may be manifested in the desire to establish a business and may become an alternative (to work for hire) form of professional activity, or emerge in any activity becoming an asset for the individual taking it up (Kwiatkowski, 2002).

The literature of the subject indicates a significant positive influence of education upon entrepreneurs' effectiveness. The fact that the completion of higher education, integrated with a set of multi-dimensional knowledge characteristic for innovation (economic, psychological, sociocultural, anthropological, ICT, one pertaining to social communication and legal issues) has become critical, is emphasized (Okoń-Horodyńska, 2008). Such knowledge facilitates the acquisitions of skills for independent analysis of social processes and phenomena, and promotes pro-entrepreneurial attitudes. When assessing the influence of higher education upon entrepreneurial initiatives, the reinforcement of particular skills in the educational process in indicated. Such skills may become beneficial in the establishment of a business, and at the same time, offer a broader array of professional opportunities upon graduation, which in turn, may decrease the probability of an individual deciding upon becoming an entrepreneur (Wecławska & Zadura-Lichota, 2010).

It is hoped that the development of academic entrepreneurship will be facilitated by the implementation of the National Qualifications Framework, and a modification of curricula to be focused upon learning outcomes, which is associated with the implementation of the Framework. The modified course curricula may be supplemented with knowledge pertaining to entrepreneurship. It is also a proper moment for the selection of suitable methods and forms of classes in order for them to become more engaging for students (Faron, 2014).

The basis for studies of academic entrepreneurship consists of a series of theories pertaining to individuals' entrepreneurial intentions. Numerous authors make references to the theory of planned behaviour (Kurczewska, 2010; Pawlak, 2015; Wach, 2015). According to the theory, particular factors such as the attitude towards behaviour (attitudes), subjective norms, and perceived behavioural control (feasibility) have impact upon intentions, and indirectly, upon an individual's entrepreneurial attitudes (Wach, 2015). The attitude towards behaviour is associated with undertaking particular activities, support of the surrounding environment,

and belief in feasibility of an entrepreneurial undertaking. These considerably increase the level of the intentions and likelihood of an own business being established (Pawlak, 2015; Safin, 2014).

Results of empirical studies

Respondents' entrepreneurial intentions

The literature of the subject highlights that the positive attitude towards entrepreneurship determines particular decisions regarding the establishment of a business to be made (Kurczewska, 2010). Such approach towards the intentions and attitude became the object of the study.

The analysis of respondents' entrepreneurial intentions based on their own opinions (self-reporting) indicated that almost half of them intended to set up their own businesses. On the other hand, 15% of them had no such plans, and merely two respondents have already operated a business (Fig. 1). The results of comparative analyses revealed that the declared interest in establishing a business does not differentiate respondents, and the level of the plans being specific and concrete varies, depending on the academic institution. Students of AWF made more particular plans. About 15% of them planned to become self-employed in the near future, whereas in case of UM students, the percentage amounted to a mere 2%.

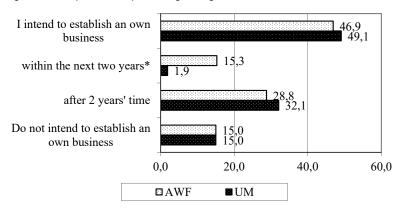


Figure 1. Respondents' plans regarding establishment of a business

^{* –} statistically significant differences; p < 0.05 Source: own study on the basis of research results.

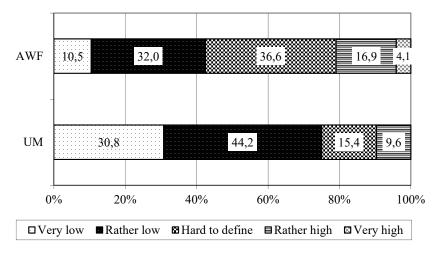
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Curricula and knowledge of entrepreneurship

The academia's role in shaping students' entrepreneurial intentions and attitudes is acknowledged by the satisfactory level of knowledge and skills acquired in the course of studies. Moreover, the decision regarding the establishment of a business is determined by the possession of critical entrepreneurial competences.

Research results indicated the existence of a relatively low competence level as regards operating a business. Only 10% of UM and 21% of AWF students assessed their knowledge of entrepreneurship as high (scores "rather high" and "high" were taken into account; Fig. 2).

Figure 2. Respondents' opinions regarding the level of entrepreneurial competences acquired



Source: own study on the basis of research results.

A further issue, discussed in the context of higher education's role in the process of shaping students' entrepreneurial intentions, pertained to the evaluation of curricula and learning outcomes associated with entrepreneurship.

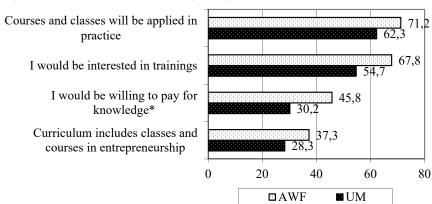


Figure 3. Respondents' opinions regarding the issue of entrepreneurship

* – statistically significant differences; p < 0.05 Source: own study on the basis of research results.

The analysis of respondents' opinions indicates that every third student believes the curricula of their universities include courses facilitating the development of entrepreneurial attitudes. Moreover, 2/3 of respondents are convinced that knowledge they acquire will be useful in their professional lives. On the other hand, the low level of entrepreneurial competences led almost 2/3 of respondents to become interested in additional training in this area. In addition, 42% of respondents expressed willingness to participate in commercial trainings in order to acquire entrepreneurial competences. This was true for AWF students more frequently (46% vs. 30% – UM students; Fig. 3).

Table 2. Consequences of running a business as assessed by respondents (%)

Specification	UM	AWF	Total
Offers prestige	100.0	95.0	96.5
Offers satisfactory income	90.6	90.1	90.2
Offers satisfaction	88.7	85.5	86.2
Offers development of competences	90.6	84.3	85.8
Exposes to stress *	89.0	69.0	73.0
Forces to take risk	57.4	70.4	67.0
Severely limits free time	50.0	62.2	59.0
Exposes to a loss *	62.3	45.0	49.1

^{* –} statistically significant differences; p < 0.05 Source: own study on the basis of research results.

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When requested to evaluate the consequences of running a business, students of both courses highlighted (Tab. 2) the fact that an own business offers prestige (97%), offers satisfactory income (90%), offers development of competences (86%). The negative aspects of being self-employed i.e. exposition to stress (UM: 89% vs. 69% – AWF), financial losses (UM:62% vs. 45% – AWF) were voiced by Medical University of Lublin students more frequently. Moreover, 2/3 of respondents believe that operating a business is associated with risk-taking.

Experience gained while studying as an element of respondents' entrepreneurial competences

An individual's activities undertaken with the view of gaining additional professional experience are perceived as significant in the process of developing students' entrepreneurial potential. Such activities, undertaken before graduation, boost employability, and when continued in the course of the graduate's career, contribute to them achieving professional success (Cybal-Michalska, 2014).

The study attempted to assess the frequency of students' activities undertaken with the view of gaining competences and professional experiences (including those related to entrepreneurship). Empirical analyses of behaviours which may boost the value of human capital indicated that experiences of the majority of respondents, most frequently, boiled down to completing a student internship (approx. 70% of respondents; Fig. 4).

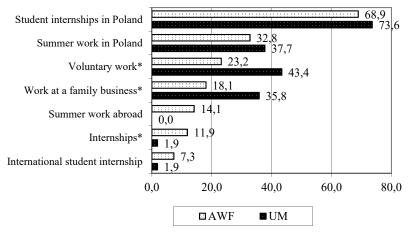


Figure 4. Experiences gained in the course of studies (%)

* – statistically significant differences; p < 0.05 Source: own study on the basis of research results.

On average, every third respondent took up seasonal work (during summer holidays). In addition, voluntary work was also indicated. Such an activity was reported by students of the Medical University of Lublin more frequently (UM: 43% vs. 23% – AWF; statistically significant differences). Moreover, UM students reported being involved in a family business twice as frequently as their colleagues from the other university (UM: 36% vs. 18% – AWF). Relatively low interest, on the part of representatives of both universities, was expressed as regards internships and international student internships.

Summary

The present study attempted to determine the role of higher education in the process of shaping students' entrepreneurial intentions and attitudes. The analysis encompassed opinions of students representing two academic environments. The level of diversity of the students' declared pro-entrepreneurial intentions and attitudes was evaluated. It was agreed that diversification of respondents' opinions may indicate the critical role of curricula in shaping the students' entrepreneurial potential, which would justify the importance of academic education in this respect.

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The study indicated that half of respondents declared the intention to establish a business. They also expressed interest in additional trainings (65%), even commercial ones (42%). High inclination towards establishing a business, coupled with an even higher desire to gain crucial competences, ought to become a motivation to take the issue into consideration when designing university curricula. It seems that it is a task for universities, which ought to deliver the competences sought after by the most important stakeholder in the process i.e. the student. When considering the role of the university in shaping entrepreneurial intentions and attitudes, the fact that an array of factors influencing the decision to establish a business may be moulded, and reinforced by the educational system, ought to be emphasised (Dorocki & Borowiec-Gabryś, 2014; Urbaniec, 2014; Wach, 2014; Wach, 2015; Zbierowski, 2014). This is true both for the knowledge imparted and particular climate for the emergence of entrepreneurial attitudes. Universities' role in the process ought to come down to rousing aspirations, promoting active participation, stimulating students' entrepreneurial attitudes. This is vital due to the fact that entrepreneurship is not associated merely with the domain of economy, but facilitates an individual's functioning, also in day to day activities. The following constitute the most frequently enumerated attributes of an entrepreneurial person: ability to make decisions and solve problems, responsibility, high level of aspirations, creativity, communication skills, diligence. They are all highly valued characteristics of a graduate of the modern university.

As far as respondents' self-reporting is concerned, the majority of them assessed the consequences of running a business as positive, and claimed that it offers prestige, satisfactory income and even development of entrepreneurial competences. At the same time, several negative aspects of operating a business were enumerated, such as exposure to stress, necessity of taking risk and reduction of free time. When considering these opinions, it may be inferred that respondents were driven by a stereotypical perception of running a business. In order to remedy the issue, examples of successful businesses, also those ran by graduates of similar university courses, ought to be presented to students. Such case studies, along with classes or meetings with practitioners would facilitate becoming familiar with the reality of self-employment and means of coping with difficult situations.

To summarise, it ought to be stated that opinions of students representing the selected universities showed little diversification in general. This may give evidence to a similar level of influence of curricula and teaching content upon shaping the graduates' entrepreneurial potential.

However, the fact that due to limitations imposed by purposive sampling, the current research results cannot constitute a basis for broader generalisations regarding other academic environments, must be emphasised.

Conclusions and recommendations

The study allows the following conclusions and recommendations for the management of the selected universities to be drawn:

- Almost 50% of students from both universities declare the intention of establishing their own business. Students from AWF exhibited more mature and precise plans for self-employment. Curricula of various courses ought to include a component discussing the issue of entrepreneurship;
- Respondents exhibit relatively low level of competences regarding running a business; merely every fifth student of AWF and every eleventh of UM assessed their knowledge and skills in this respect as high. Implementation of educational and educational-advisory programs covering the issue of entrepreneurship seems critical;
- Students declare considerable interest in trainings pertaining to entrepreneurship, including commercial trainings. This was particularly true for AWF students. This fact may become a stimulus for undertaking such actions on campus;
- In general, respondents perceive consequences of running a business as positive, and their opinion on the issue is coherent in this respect. The greatest discrepancies pertained to the perceived threats ensuing from self-employment. These were voiced by the students of Medical University in Lublin more often. Facilitation of contact with the sphere of business may alleviate the problem.

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