ENTREPRENEURIAL ORIENTATION IN ROMANIAN HIGHER EDUCATION

Diana Manuela Lina, Alina Mariuca Ionescu, Maria Viorica Bedrule-Grigoruta
Alexandru Ioan Cuza University of Iasi (ROMANIA)

Abstract

The rise of entrepreneurship in Europe and Romania has produced a new orientation in universities targeted at developing entrepreneurial skills at all level of tertiary education. The literature in the field reports several factors leading to the development of this type of orientation in universities: introduction of entrepreneurship-led courses in higher education, entrepreneurial agenda of the European Union, the growing number of start-ups and entrepreneurs, set-up of entrepreneurial societies and organisations. Therefore, the study of entrepreneurial practices of Romanian education may bring understanding into the interplay of factors involved in this process. The study aims to explore the entrepreneurship education from a two-folded perspective: the entrepreneurial attitudes among students and entrepreneurial orientation of universities. It will first discuss the importance of entrepreneurial education as a determinant for creating an entrepreneurial attitude. Second, the research will look into the entrepreneurial integration process in four Romanian universities. Third, conclusions will be reached on the entrepreneurial education integration process in Romanian higher education. The study is built around a set of research questions: How important is entrepreneurship education in universities for creating an entrepreneurial attitude? How important is entrepreneurship education in shaping an entrepreneurial university? For this purpose, a set of qualitative research methods will be used along with a review of the literature in the field. The results will help better understand the relationships of entrepreneurship education in universities, creation of entrepreneurial attitudes among students and assumption of entrepreneurial orientation by universities.

Keywords: Entrepreneurship education, entrepreneurial universities.

1 INTRODUCTION

Scientific literature highlights entrepreneurship as a key factor in economic development, showing the importance of understanding how entrepreneurs successfully contribute to job creation and to the production and deployment of innovative technologies [1],[2],[3],[4]. As a result of the increased interest in entrepreneurship, there has been a new orientation in universities aimed at developing entrepreneurial skills at all levels of tertiary education.

Universities today have two major responsibilities: the creation of future elites to actively participate in society development and involvement in community affairs. However, it is not enough that these objectives are unique, but that a change strategy, built by transforming the classical model of European universities, centered on teaching and research, into an innovative and entrepreneurial one, is necessary.

Following the broad interest manifested in the research literature for the study of entrepreneurial practices of universities, the present paper explores the entrepreneurship education from a two-folded perspective: the entrepreneurial attitudes among students and entrepreneurial orientation of universities.

The research has been organized as follows: it first presents some theoretical aspects regarding entrepreneurship education, emphasizing the importance of this type of education to create an entrepreneurial attitude and highlighting the main findings from existing research. Section 3 provides a brief review of the literature on the concept of entrepreneurial university and presents some empirical data on the integration of entrepreneurial orientation in Romanian higher education, as well as the initiatives taken in this direction. The next section describes methodological aspects, while section 5 presents and discusses some results regarding the entrepreneurial practices in Romania’s main universities. Finally, in our conclusions we highlight the key results of the present research.
2 THE IMPORTANCE OF ENTREPRENEURSHIP EDUCATION FOR CREATING AN ENTREPRENEURIAL ATTITUDE

In the context of increased attention given to entrepreneurship by academics and policymakers, entrepreneurship education has also experienced rapid growth throughout the world [5].

Researches have shown that entrepreneurship can be learned because education can help to achieve and increase the awareness and acceptance of entrepreneurship as a valuable career option [6]. Maresch et al. [7] suggest that the dispositions, skills, and competences needed by the founders of an enterprise in order to generate successful entrepreneurship can be shaped by education.

Entrepreneurship education has been conceptualized in a variety of ways, ranging from training for firm creation to that of a model of lifelong learning [8].

Liñán [9] formulates an operative definition of entrepreneurship education based on the entrepreneurial intention model (which identifies personal intention as the first key element in the entrepreneurial process): "the whole set of education and training activities - within the educational system or not – that try to develop in the participants the intention to perform entrepreneurial behaviours, or some of the elements that affect that intention, such as entrepreneurial knowledge, desirability of the entrepreneurial activity, or its feasibility". In this vision, entrepreneurship education includes the development of knowledge, capacities, attitudes and personal qualities identified as entrepreneurship-specific, seeking the effective creation of enterprises and their subsequent dynamism.

In their meta-analytic review of the relationship between entrepreneurship education and entrepreneurial intentions, Bae et al. [10] found that scholars mention different types of entrepreneurship education, which are targeted toward specific audiences, and toward particular stages of development.

In terms of the relationship between entrepreneurship education, attitudes and entrepreneurship, empirical and theoretical research has shown that entrepreneurship education creates a favourable attitude towards entrepreneurship, which, on the other hand, has a positive impact on entrepreneurial intent, considered to be the best predictor of the expected behaviour, namely starting a business. Thus, because attitudes are open to change, entrepreneurial attitudes may be influenced by educators and practitioners [11].

According to Kakkonen [12], an attitude is a mentally prepared state for any known subject, and a subjective consciousness that is affected by the environment. The term attitudes towards behavior refers to a person’s favorable or unfavorable assessment of the target behavior [7]. The attitude towards entrepreneurship reflects a person’s conception of entrepreneurship, its assessment and inclination towards entrepreneurial or self-employment [13]. Based on the results presented in several literature research on the topic, Maresch et al. [7] found that the more positive an individual assessment of the outcome of starting a business is, the more favorable his or her attitude towards that behavior should be, and consequently the stronger his or her intention to start a business should be.

In the educational process, skills and attitudes are formed on particular subjects. Entrepreneurial education enables the combination of experimental learning, skills development and the most important thing, the change in the way of thinking of individuals [6]. Thus, by cultivating an attitude of innovation, achievement, self-esteem, educators can change their students’ perception and feeling of entrepreneurship [14]. By transmitting the important role that entrepreneurs play in economic growth, participants’ valuation of entrepreneurship may be improved [8]. Knowledge of the entrepreneurial environment helps individuals to form their own perceptions about the pursuit of a career in entrepreneurship [8].

The role of entrepreneurship education in shaping attitudes towards entrepreneurship is underlined in the definitions that many authors offer to this concept. Fayolle, Gailly, and Lassas-Clerc [15] define entrepreneurship education as "any pedagogical program or process of education for entrepreneurial attitudes and skills." Bae et al. [10] refers to it as education for entrepreneurial attitudes and skills, while Liñán [8] considers that entrepreneurship education is mainly concerned with attitudes, intentions and the firm-creation (or entrepreneurial) process.

The central role played by entrepreneurship in fuelling economic growth can be facilitated by a well-developed and coordinated entrepreneurial ecosystem [16], where universities play a key role by interacting with other components of the entrepreneurial environment (organizations, institutions,
entrepreneurs, etc.), as the main providers of knowledge. Universities can contribute to the development of entrepreneurship and through the implementation of entrepreneurial education programs.

According to Bae et al. [10] findings, in their meta-analytic review, most university-level programs are designed to increase entrepreneurial awareness and prepare aspiring entrepreneurs.

Liñán identifies four objectives of entrepreneurship education initiatives [8]:

1. **Entrepreneurial awareness education.** This type of education is aimed at students who have no experience of starting a business and usually includes optional courses within business or engineering degrees. The goal of entrepreneurship awareness education is to enable students to develop entrepreneurial skills and to assist them in choosing a career by giving them a broader perspective [10]. This type of educational initiative aims at increasing the number of people with sufficient knowledge about entrepreneurship and self-employment, so that they consider a rational and viable employment and career option, i.e. the creation of more potential entrepreneurs, regardless of whether they actually create their firm immediately after the training. According to intention models, entrepreneurship awareness education programs act on one or more of the antecedents of entrepreneurial intent: entrepreneurial knowledge, desirability or feasibility.

2. **Education for start-up.** It generally addresses those who already have a viable business idea and seek to become entrepreneurs during or shortly after the course. This type of entrepreneurship education is to prepare trainees to become the owner of a small conventional business, as most of the newly created firms. The content of the courses focuses on specific practical aspects related to the start-up phase, such as how to obtain funding, legal regulations, taxation [17].

3. **Continuing education for entrepreneurs.** This kind of educational initiative is designed for active entrepreneurs, aiming at improving existing entrepreneurs’ abilities [18] to help them become dynamic entrepreneurs.

4. **Education for entrepreneurial dynamism.** This type of education promotes dynamic entrepreneurial behaviours after the start-up phase, aiming both to increase the intention of becoming an entrepreneur and to develop dynamic behaviors when the enterprise is already in operation.

3 THE ENTREPRENEURIAL INTEGRATION PROCESSES IN ROMANIAN UNIVERSITIES

3.1 Brief review of the literature on the concept of entrepreneurial university

Entrepreneurial university is a concept with a multitude of meanings. The results of investigations made by researchers on the defining elements of the entrepreneurial university have so far not led to a unanimously accepted definition.

Since the 1980s, there has been a concern to develop methods of investigating the economic impact of universities [20].

Entrepreneurial university concept was first used by Burton Clark [20] in his book *Creating Entrepreneurial Universities: Organizational Pathways of Transformation*. In this paper, five European universities are analyzed: Warwick University (England), University of Twente (Netherlands), University of Strathclyde (Scotland), Chalmers University of Technology (Sweden) and Joensuu University (Finland), the common goal of these institutions was becoming top universities.

Etzkowitz and Leydesdorff [21] analyze the ability of the academic environment to perform a third function outside research and education, namely entrepreneurial function. The authors researched the relationships between university, industry and government in the context of the evolution of innovation systems. The Triple Helix model was chosen as representative for illustrating the configuration of these relationships, a model that can be: Triple Helix I, a statist type, when the state “contains” University-Industry relations; Triple Helix II, “laissez-faire”, when the spheres of relationships between the three entities are independent; and Triple Helix III, respectively, when relationships between entities intertwine and generate an innovative environment.
Referring to the concept of the entrepreneurial university, Etzkowitz et al. [22] consider that it has an academic structure and function, reviewed by aligning academic research and education missions to economic development. In Clark’s vision [23], an entrepreneurial university refers to the university that is able to survive and adapt to the complexity and uncertain conditions of the environment in which it operates.

Lazzeroni and Piccaluga [24] analyze the course of universities towards an entrepreneurial model characterized by their direct involvement in the exploitation of research results, more intense collaboration with industry and involvement in regional economic development.

Gibb [25] believes that entrepreneurship is a concept that defines those universities that offer opportunities, practices, cultures and backgrounds to encourage the entrepreneurial spirit of students and graduates. The author describes such universities as being organized to allow employees and students to demonstrate entrepreneurial, innovation and creativity in research and teaching and tracking and using acquired information across borders [26].

An important catalyst for regional economic and social development [27], the entrepreneurial university pursues entrepreneurial activities with the objective to improve regional or national economic performance, as well as the university’s financial advantage [21].

Hannon [28] underlines the recognition that this model enjoys as a major driver for self-development and innovation and an appropriate response to succeeding in highly turbulent and unpredictable markets.

The entrepreneurial university is defined by activities such as patenting, licensing, creating new firms, facilitating the transfer of technology through incubators and scientific parks [29].

3.2 Data on the Integration of Entrepreneurship in Romanian Higher Education

Entrepreneurship education involves interaction with the outside world, and universities are among the best institutional facilitators of this interaction [30].

Poor education is in the second place (after mentality and fear of failure) in the top barriers faced by those who want to start a business in Romania, according to the Start-up Barometer in Romania - 2019 [31], while in 2016 and 2017, this obstacle took first place. The share of those who perceive this barrier to business development is 12% in 2019, after rising from 16% in 2016 to 23% in 2017, according to the same study. In spite of this, in 2019 according to Barometer EY, 75% of Romanian entrepreneurs (down from 86% in 2016) consider that school / university does not prepare young people to become entrepreneurs.

The European Commission report of 2017 entitled Specific Support to Romania – Starts-ups, Scale-ups and Entrepreneurship in Romania shows that entrepreneurship education in Romania is limited to courses in economic schools and universities [32]. For example, Alexandru Ioan Cuza University of Iasi, although it has a faculty of business, introduced the first course of entrepreneurial education in 2018.

3.3 Demands for the integration of entrepreneurial orientation in Romanian universities education

Universities are developing a change strategy, built by transforming the classical model of European universities focused on teaching and research into an innovative and entrepreneurial one. The importance of dual, innovative and entrepreneurial character, the framework and the ways in which it can be applied and developed are motivations that have allowed the construction of the HEInnovate tool, both as a source of learning and inspiration for the traditional European higher education institutions, and for carrying out an evaluation of the current state of those who allow themselves to become entrepreneurial institutions.

The HEInnovate Platform [33] has led to the possibility of self-evaluation of universities, together with the most important institutional stakeholders; over 450 European universities have applied over the past 5 years the HEI tool to identify the defining elements and characteristics of an entrepreneurial higher education institution. The HEInnovate tool allows higher education institutions to self-assess through their dedicated website in relation to a series of statements about the entrepreneurial and innovative nature of their organizational environment and helps them to identify the current situation in
order to identify areas of potential development, and fields of action, in line with the seven pillars defined in the instrument: a) leadership and administration; b) organizational capacity: finance, people and incentives; c) teaching and learning the notions of entrepreneurship; d) preparing and supporting entrepreneurs; e) exchange of experience and collaboration; f) the internationalized institution; g) impact measurement.

In the period 2016-2018, 34 universities from 19 Romanian cities underwent a self-evaluation process using the HEInnovate tool.

Considering these aspects, we believe that this is the new direction of development to which all higher education institutions need to turn their attention, aspire and prepare to implement change. The whole process requires models of good practice that can be adapted to the local economic context through various ways to integrate entrepreneurship in university strategy.

For Romanian universities, these steps are important to help students and teachers develop specific skills and practice their business ideas. Collaboration of higher education institutions with the business environment is very important for: a) development and delivery of training and mentoring programs, feedback and advice in business incubators; b) attracting and maintaining students in the educational system in the context of the diversified study opportunities presented by foreign universities; c) the students’ interest in getting a job immediately after graduating from high school or during the faculty; d) creating and strengthening partnerships with the business environment; e) reorganizing the educational programs and the specializations available according to the requirements of the labor market and the employers in order to increase the employability of the young people.

4 METHODOLOGY

Exploring the degree of integration of entrepreneurial orientation in Romanian higher education is done in the paper by analyzing the situation existing in the main universities in Romania.

The four chosen institutions are constantly positioning themselves among leading Romanian universities in the UK’s World Universities Ranking of Times Higher Education [34]. We chose this ranking because it uses as hierarchy criteria the following indicators: teaching (learning environment) 30%; research (volume, income and reputation) 30%; citations (research influence) 30%; international outlook (staff, students and research) 7.5%; industry income (knowledge transfer) 2.5%, the latter indicator reflecting, to a certain extent, the degree to which a university succeeds in facilitating the transfer of knowledge to the business environment.

The selected universities are: Babes-Bolyai University, Cluj-Napoca, Alexandru Ioan Cuza University of Iasi, University of Bucharest and West University of Timisoara.

The data was collected using secondary documentation sources, respectively information available on the websites of the four universities and the pages of their faculty components. The reference period is 2016-2018.

The following indicators were considered in the analysis to describe the degree of integration of entrepreneurship orientation in the selected universities, as they express both the various forms in which entrepreneurship education is delivered, as well as modalities or channels used for the transfer of knowledge to the economic environment:

- Entrepreneurship courses included in the curriculum (number, level of study offered);
- Business infrastructures existing in the university (number and type);
- Events to promote entrepreneurship which are organized within the university;
- Student entrepreneurial societies and / or companies set up by the university (number);
- Technology transfer centers (number);
- Patents belonging to the university (number).

5 RESULTS

Babes-Bolyai University, Cluj-Napoca, is one of the most prestigious Romanian higher education institutions, the continuation of the tradition of the Jesuit College founded in 1581. Currently, it operates in a system of 21 faculties, being the largest university in the country, with nearly 42000 undergraduate, masters and doctoral students in 2015.
Alexandru Ioan Cuza University of Iasi is the oldest institution of higher education in Romania continuing since 1860 a tradition of excellence and innovation in education and research. It consists of 15 faculties. In the academic year 2018-2019, about 23000 students are enrolled in the bachelor, master and doctoral degrees of the university. With the adoption of the Bologna process, Alexandru Ioan Cuza University became the first student-centered higher education institution in Romania.

University of Bucharest consists of 19 faculties, nearly 32000 students and more than 1300 titular teachers.

West University of Timisoara is the main institution of higher education and research center in western Romania. There are 11 faculties within it.

Table 1. Entrepreneurial practices integrated by the best Romanian universities in the period 2016-2018.

<table>
<thead>
<tr>
<th>University</th>
<th>Entrepreneurship courses (number, level)</th>
<th>Business Infrastructure</th>
<th>Events to promote entrepreneurship</th>
<th>Student entrepreneurial societies (SES) / other companies (number)</th>
<th>Technology transfer centers (number)</th>
<th>Patent number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Babeş-Bolyai University, Cluj-Napoca</td>
<td>2 (Master)</td>
<td>Digital Innovation Hub Transilvania iHUB4.0 UBB</td>
<td>Today student, tomorrow entrepreneur; Seminar on entrepreneurship promotion; Business plan competition</td>
<td>1 SES</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Alexandru Ioan Cuza University of Iasi</td>
<td>2 (Bachelor)</td>
<td>0</td>
<td>BringITone 2018 Innovation Lab; StartUp Europe Comes to Universities</td>
<td>1 SES</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>University of Bucharest</td>
<td>2 (Bachelor and Master)</td>
<td>0</td>
<td>The Mindcraft Academy mentoring program offered by BRD; BDPlan Contest of Ideas and Business Plans</td>
<td>1 SES</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>West University of Timisoara</td>
<td>4 (Master)</td>
<td>Minds Hub - the first educational hub in Romania, with the contribution of 34 companies and 9 student associations and clubs from Timisoara</td>
<td>CodeCamp; Seasonal Entrepreneur; Start up Weekend; Start Up Europe Comes to Universities.</td>
<td>1 company</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Regarding the entrepreneurial orientation of the four selected universities, the data gathered about their entrepreneurial practices are summarized in Table 1.

It can be noticed that the four universities analyzed have introduced entrepreneurship courses for the undergraduate and/ or master studies. These courses were only produced at the faculties with business specific.

Two universities have created business infrastructure for students, namely business hubs for the local business. There are many events aimed at promoting entrepreneurship amongst the students. Starting with 2017, Romanian legislation has supported developing of entrepreneurship in the universities through the establishment of student entrepreneurial societies. For the creation of these facilities without legal personality, the government has allocated funds distributed on the basis of a competition of projects. With the help of the funds obtained, the analyzed universities set up such companies in 2018, and until the end of the government funding and the end of 2019, they will find solutions to support the continued operation of these societies.
In 2015, the West University of Timisoara also set up a company with a legal personality that supports the entrepreneurial activities associated with the fields of study at the level of the faculty.

Three of the four universities have established technology transfer centers or offices, but none have yet been accredited by the Ministry of Research.

Although there are patents obtained by the majority of universities analyzed, they are modest in number compared to the innovative European universities in Germany, UK or France, which are at the forefront of specialist rankings (such as Reuters Top 100, www.reuters.com).

Table 2. Evolution of university income earned from the relationship with the business environment (Industry income), during 2016-2018.

<table>
<thead>
<tr>
<th>University</th>
<th>Industry Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>Babeş Bolyai University, Cluj-Napoca</td>
<td>28.6</td>
</tr>
<tr>
<td>Alexandru Ioan Cuza University of Iasi</td>
<td>28.2</td>
</tr>
<tr>
<td>University of Bucharest</td>
<td>29.5</td>
</tr>
<tr>
<td>West University of Timisoara</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: [34]

The transfer of knowledge to the economic environment is a characteristic of entrepreneurial universities. This process can be analyzed using a series of indicators that reflect the spread of knowledge in the economy, as well as the collaboration between the university and the business environment.

From the analysis of the income obtained by the four universities from the relationship with the business environment (Table 2), it is observed that the values of the indicator increased in 2017 compared to 2016, with a slight decrease in 2018. It is worth noting that the selected institutions have very close values for the industry income indicator, although they have different characteristics in terms of the number of faculties, their profiles, the number of teaching staff or the number of students enrolled.

6 CONCLUSIONS

The universities analyzed in the paper use different pedagogical designs for entrepreneurship education that they offer, which include theoretical courses on entrepreneurship both for undergraduates and for graduate students, as well as “learning-by-doing” activities, providing students with theoretical knowledge and with practical experience needed in creating ventures. Communication with the business environment and student involvement in the relationship between universities and this is facilitated by various events promoting entrepreneurship as well as through business hub infrastructure. Although student entrepreneurial societies and technology transfer centers have been set up in all the universities studied, they are very few in number.

In conclusion, the Romanian universities have taken important steps towards the integration of entrepreneurial orientation into their practices, but the efforts made so far have mainly materialized in the introduction of entrepreneurial courses in the curricula, at both Bachelor and Master educational level, and in organizing events to promote entrepreneurship. We can say that from the point of view of the objectives of entrepreneurship education initiatives, Romanian universities focus on entrepreneurship awareness education to create and develop a pro-entrepreneurial attitude among students and to provide them with knowledge about entrepreneurship, so that to consider it a viable career option.

The entrepreneurial orientation of Romanian higher education could be enhanced by integrating and/or developing within universities of other types of entrepreneurship education initiatives, too, such as education for start-up, continuing education for entrepreneurs, and education for entrepreneurial dynamism.

The results of the study provide useful information about the entrepreneurial orientation of the Romanian higher education and the directions in which the entrepreneurial practices of the Romanian
universities can be developed. However, the results obtained cannot be generalized, as the research analyzed the situation of a small number of institutions in the sample considered not including universities in areas where entrepreneurship initiatives are more likely to emerge, such as medicine and pharmacy, agronomy or engineering. Future research can target a more representative sample of universities, which also takes into account these areas.

REFERENCES


