

PUBLISHED BY

INTECH

open science | open minds

World's largest Science,
Technology & Medicine
Open Access book publisher



3,250+
OPEN ACCESS BOOKS



106,000+
INTERNATIONAL
AUTHORS AND EDITORS



112+ MILLION
DOWNLOADS



BOOKS
DELIVERED TO
151 COUNTRIES

AUTHORS AMONG

TOP 1%
MOST CITED SCIENTIST



12.2%
AUTHORS AND EDITORS
FROM TOP 500 UNIVERSITIES



Selection of our books indexed in the
Book Citation Index in Web of Science™
Core Collection (BKCI)

WEB OF SCIENCE™

Chapter from the book *Entrepreneurship - Development Tendencies and Empirical Approach*

Downloaded from: <http://www.intechopen.com/books/entrepreneurship-development-tendencies-and-empirical-approach>

Interested in publishing with InTechOpen?
Contact us at book.department@intechopen.com

Higher Education, Entrepreneurship and Learning by Practice: Collaborative Work from the Stakeholders' Point of View

Ana Paula Marques

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.70539>

Abstract

The involvement of different stakeholders has created a positive dynamics in the context of higher education, on the one hand by the reinforcement of entrepreneurship linked to innovation, the transference of technology, and the creation of companies and on the other hand by offering extracurricular activities in the formal curricular plans involving different academic stakeholders. Although there are countless initiatives and entrepreneurship programmes, in Portugal there are no (or, at least, no known) studies that analyse the non-formal and informal apprenticeships conceived and implemented by the stakeholders in order to clarify the potential development of entrepreneurial competences. Our results gathered from the research project: "Entrepreneurial learnings, cooperation and labour market: good practices in higher education (POAT-FSE)" show which are the main stakeholders or interface institutions between the university and the surrounding community in the process of technological and knowledge transfer. Our analysis proceeds to a report of the profiles, fields of work, advantages and factors of marked obstacles. By highlighting the contributions of these results, used for the innovation and revitalisation of the partnership networks in the field of science, technology and knowledge transfer, we intend to anchor the discussion about the relevance of the stakeholders in European Higher Education governance.

Keywords: Portugal, higher education, entrepreneurship, stakeholder, non-formal learning

1. Introduction

The involvement of different stakeholders has created a positive dynamics in the context of higher education [1–3] at two main levels. The first level can be seen in the reinforcement

of entrepreneurship linked to innovation, the transference of technology and the creation of companies. This direct stimulus has substantiated in the constitution of new academic structures and interfaces in the entrepreneurship/employment area; a second one, which results from this momentum is reflected in an increasing offer of extracurricular activities in the formal curricular plans on the one hand and on the increase of aids and measures that enable skills arising from the practical experience and of the networks of expertise of different stakeholders on the other hand.

In this context, one of the main aspects of privileged action higher education level is geared towards the promotion of a “culture” of entrepreneurship among the students and the graduates, which contemplates the “ability to identify opportunities in the marketplace and to create new businesses”, but also “the attitudes and behaviours associated with creativity, innovation and risk” [4–6] Although there are countless initiatives and entrepreneurship programmes, in Portugal there are no (or, at least, no known) studies that analyse the non-formal and informal apprenticeships conceived and implemented by the stakeholders in order to clarify the development potential of the entrepreneurial competences. The non-formal and informal apprenticeships embrace, on the one hand, a wide array of initiatives that enable the personal and professional development of students/graduates (e.g., participation in internships or professional experiences, extracurricular activities, youth associations, mobility programmes, organisation of events, volunteering); and conversely, actions and initiatives, which are more guided towards the creation of graduates’ own businesses/self-employment (e.g., specific training and modules or courses), as well as mentoring and follow-up activities set up in order to implement projects (e.g., incubation, tutorials, specialised technical consulting).

Bearing in mind these suppositions, we will use the main results of the research project: “Entrepreneurial learnings, cooperation and labour market: good practices in higher education (POAT-FSE)”, which aimed to identify fundamental entrepreneurship programmes and support existing infrastructures and their capacity to generate relevant entrepreneurial competences for the labour market; in addition, our goal is to analyse critically the collaborative dynamics of the different stakeholders and their engagement in the initiatives and entrepreneurship programmes.

In this chapter, we focus on the contributions of these stakeholders or interface institutions between the university and the surrounding community in the process of technology and knowledge transfer. We will begin by discussing both “third mission” and the relevance of the stakeholders in European Higher Education governance. Next, the goals and the research design that sustained this study will be presented. Our analysis will then proceed to display a report of the profiles, fields of work, advantages and factors of marked obstacles. We will conclude with a review and assessment provided to the set of initiatives implemented in the period between 2007 and 2013. By highlighting the contributions of these results, used for the innovation and revitalisation of the partnership networks in the field of science, technology and knowledge transfer, we intend to anchor the discussion about the relevance of the stakeholders in European Higher Education governance [7].

2. "Third mission", entrepreneurship and stakeholders

Over the last few years, Higher Education Institutions (HEI) perform an essential task in contemporary societies, since they create strategies to face citizens' challenges and expectations. In order to improve the quality of higher education, institutions look for answers in three directions or missions: (i) teach and educate, (ii) research and innovate and (iii) transfer knowledge and serve the community. This last dimension, called "third mission", encompasses knowledge management and the cooperation with different community entities, besides questioning the place the HEI occupy in the development of societies. With the growing internationalisation of the HEI, we witness the promotion of cooperation and critical dialogue among several partners and/or stakeholders. This dynamics presupposes a particular focus on the field of entrepreneurship, reinforced in the Europa 2020 framework, in which universities and R&D centres are summoned to participate more actively in consortium networks and multidisciplinary teams, contributing to increase the competitive advantages of each country and region.

This enhancement of the "third mission" presupposes a "new" focus, not only on the research and development areas, but mainly on the models of governance, autonomy and flexibility models of these institutions through the presence of "external entities", namely of stakeholders defined as "third parties that act between the two main partners – the academic community and the interests of society" [7, 16]. Likewise, Freeman [8, 46] defines stakeholder as "any group or individual that may affect or be affected by the organisational goals." In this case, the concept widens to include any internal or external group, which may simultaneously influence and be influenced by the decisions of the organisation. Moreover, in the context of growing interdependence, it is no longer expectable that the HEI are single actors, since they interact with industry, community and government, thus being a part of national and/or regional systems of innovation, constituting in the critical component of the "triple helix" principle" [9].

It is true that no consensus has yet been reached in literature, regarding the roles and senses assigned to these "third parties", mainly because they referred to the trend towards the merchandising of scientific knowledge or the corporatisation of university [10, 7].

Notwithstanding the existing controversies in literature on this subject, both the national governments and the local public universities have aimed to offer a wide array of programmes that envisage promoting entrepreneurship at different levels: financial aid, technical support and specific formatting and qualification programmes geared towards the creation of own business/self-employment. Through diverse empirical evidences [9], many of the HEI have been adopting an enterprising and entrepreneurial attitude, creating goals for the establishment and commercialisation of knowledge and intellectual property. According to the authors, the entrepreneurial activities developed by the HEI promote the regional and national development and enhance, specifically, the performance of the institution itself and of its academic staff.

In a more specific way, it is important to have entities and experiences that promote the creation and maintenance of an ecosystem among the different stakeholders involved in the HEI. This presupposes diversified strategies to foster the entrepreneurial culture/spirit,

namely: (i) curricular units present in the formal academic courses and trainings, (ii) programmes of extracurricular activities at the regional, national and international levels, which involve several stakeholders and aim to improve the corporate culture and (iii) structures that support entrepreneurial initiatives with the goal of transferring knowledge to the market and to promote the local/national development.

Also, Pinho and Sá [11] corroborate these strategies and consider that entrepreneurship has been considered as one of the key factors in increasing employment, growth and competitiveness by the countries of the European Union. The connection between education and entrepreneurship takes on particular prominence, especially the relation that is directed towards the discussion of pedagogical strategies of experiential learning, with the direct involvement of different academic stakeholders. Research related to this subject is vast [1, 12–15]. These studies comprise a substantial body of research on topics such as pedagogy in the curriculum, mapping of educational offer in entrepreneurship and extracurricular activities.

This redefinition of the role of the HEI does not only arise from the needs of internal evolution, but also from external influences, namely financial constraints (continuous cuts in the transfers of the state budgets to the HEI), significant socio-economic mutations and the reassertion of the society based on knowledge [16–19]. Particularly visible are the demands related with the integrated quality systems and accountability (production of relevant indicators for the public exercise of provision of accounts), and more recently, the positioning of the HEI in the international rankings.

These governance, transparency and social responsibility demands on the part of the HEI are mutually reinforcing because we recognise that the HEI have a public mission: that is, they produce services with benefits for a broader society and for that reason, at least partially, they are financed by the State. The importance of building trust and being socially responsible is particularly relevant in the context of commodification, deregulation and decentralisation. In this new era, it does not suffice to show excellence in the traditional sense. On the contrary, the demand for this excellence has been complemented—in many cases overlapped—by its relevance, that is, universities have proved that they have contributed to the society of knowledge. This implies that in the same way that companies aim to develop the surrounding environment economic and socially, the HEI have to be intervening agents in the resolution of important problems that society faces, problems which require several types of innovation: social, economic and cultural.

3. Methodology

3.1. Project Link.EES

Link.EES is the acronym for the project “Entrepreneurial learnings, cooperation and labour market: good practices in higher education (POAT-FSE)”, which has been structured on the basis of a dual approach: (i) identify and analyse the entrepreneurial non-formal and informal learnings within the scope of entrepreneurship programmes and existing support

infrastructures in the Higher Education Institutions (HEI) and (ii) contribute to the understanding of the collaborative dynamics of the different key actors and stakeholders, with the purpose of knowing the main constraint factors and potentialities of inter-organisational collaboration.

The non-formal and informal initiatives and programmes that, in parallel with the formal learning projects, take place in the context of higher education, are relatively unknown, such as innovation and knowledge and technology transfer centres, business incubators, integration/entrepreneurship offices and intellectual property offices. These learning tend to report to a set of initiatives that enable the personal and professional development of the students/graduates through the participation in internships or professional experiences, extracurricular activities, youth associations, mobility programmes, event organisation, volunteering, among others; and, on the other hand, actions and initiatives, which are more directed towards the setting up of their own business/self-employment, namely specific training and training courses or modules. Besides these activities, others are included such as mentoring and monitoring for project implementation, in particular, incubation, tutorials and technical-specialised consultancy. Above all, we are not aware of the importance of the latter as regards their impact in the qualification of the graduates and the development potential of their entrepreneurial competences that may make a difference in the daily life of the youths. Still, we do not know the importance of these stakeholders among graduates when these opt to build, alternatively, a professional career set on a relationship of hierarchical and organisational autonomy to set up their own business. Regardless of the controversies and contentious issues associated with the distinctions between formal, non-formal and informal learnings, it is important to analyse the latter and better understand the role of the stakeholders in their revitalisation [6].

In that sense, the current study pursued more specific goals anchored in three key axes: (1) it aimed at accomplishing a comprehensive mapping of the main experiences of non-formal and informal entrepreneurial learnings developed in public higher education in Portugal (2007–2013) directed towards the promotion of employability and/or entrepreneurship, (2) identifying a set of “good practices” in higher education, that is, projects/initiatives of promotion of non-formal and informal entrepreneurship learnings and (3) and proposing a repertoire of cross-sectional and entrepreneurial competences, from the perspective of the stakeholders involved in the study.

3.2. Research design

In terms of research design, this was focused on the triangulation of sources, observational plans and research instruments and with the presentation of three distinct stages, namely: stage 1—application of an online survey to 41 stakeholders from a universe of 57, which enabled the collection of detailed and consistent information about the profiles of these stakeholders that belong to the Portuguese public higher education system. Subsequently, we proceeded to the drafting of the survey via an online survey, taking into account the goals ranked in the stage of the study design. In this respect, the online survey tried to obtain information and data on the following points: (i) characterisation of the stakeholders and their operating

modalities (designation, legal status, scope of action, number of collaborators); (ii) forms of inter-organisational collaboration and work networks/partnerships; (iii) entrepreneurial initiatives developed by each entity in the period between 2007 and 2013 and overall balance of the aforementioned initiatives; (iv) cross-sectional competences that facilitate the process of work integration and the creation of own employment/self-employment; and (v) opinion of the survey respondents concerning general aspects of entrepreneurship in higher education .

In stage 2, 12 case studies were accomplished from a selection of entities/initiatives considered paradigmatic in the promotion of entrepreneurial apprenticeships with a non-formal and informal nature and accomplishment of in-depth interviews to the respective key-actors. Finally, in the stage 3, a report of entrepreneurial skills was elaborated and subsequently submitted to validation with the key actors, mobilising the Delphi technique with the achievement of two rounds among the key actors involved in stage 1.

4. Academic stakeholders, employability and entrepreneurship

4.1. Profile of the academic stakeholders

The 41 stakeholders that participated in this national study—representing 72% of the target universe of entities was previously selected by us—take up functions that have direct responsibility in the programmes or existing infrastructures in public higher education (university and polytechnic), located preferably in the regions of Lisbon (22), North (17) and Centre (13). Such geographic distribution coincides with the greater population concentration, location of HEI and business revitalisation. In terms of legal status and self-denomination, more than half state assume the regime of organic unit or sub-unit of higher education university/polytechnic (51.2%), followed by non-profit private law associations (31.7%). Regarding the ways, the actors designate themselves, it was possible to conclude that nearly half define themselves as an interface/transfer unit of S&T (Science and Technology) (24.4%) and the centre/innovation office and/or entrepreneurship (24.4%). On the contrary, only a minority defines itself as an incubator of companies, or as an office of professional integration, both with residual values of 2.4%. These results allow us immediately to reinforce the idea, on the one hand, about the greater visibility of the activities of knowledge transfer with a technological basis and the identification of “patterns” supported in the rapport between university-industry, and on the other hand, a minor visibility of the transition activities.

These entities are mainly small scale ones, in other words, micro-organisations, 73.2% of which are constituted by up to nine workers and were created in the first decade of the twenty-first century. The entities that emerged in the 1980s are only residual (4.9%), which allows us to reinforce the argument about the importance of public policies in the national framework and above all European, related with the initiatives of knowledge transfer, entrepreneurship and employability of both students and graduates.

When questioned about the operating mode and the performance of the HEI to which they are linked, the respondents evaluate their degree of autonomy with the university or polytechnic as being predominantly partial (56.1%). Even so, 31.7% state that they have little (19.5%), or no

autonomy (12.2%) in terms of performance and operating mode when compared to the HEI to which they are affiliated. This more restricted organisational autonomy is in line with the high degree of commitment of these entities in the development of their activities regarding the mission of the university/polytechnic where they are based and 70.7% referred to that degree of commitment as being total.

It is important to consider the diversity of the services rendered and it matters even to consider their diversity. In effect, these stakeholders reveal they make the following services available: information about aids, programmes and initiatives; training activities in entrepreneurship (courses, workshops, e-learning); support at the stage of submitting applications to projects and preparation/drafting of business plans; accomplishment of information and awareness-building sessions (seminars and conferences), mentoring/monitoring of projects or business ideas and the organisation of idea contests of business plans. To a lesser extent, on balance in these services we should refer to the technical consultancy, specialisation in management of companies and the participation in academic training, in the formal component of the curricular plan.

Lastly, the results also reveal that the geographic scope with major relevance among these key actors is the local or regional (42%), followed by the national one (32%). The international dimension assumes a minor relevance in the operational area framework of these entities, gathering 26% of the answers.

4.2. Networks and partnership advantages

In the current context of growing uncertainty and competitiveness, it matters that the different stakeholders and entities involved in the initiatives and projects of non-formal and informal learnings find new and better ways of getting organised, since the revitalisation of inter-organisational networks as one of the most relevant modalities in this area of intervention. In this case, the relation of cooperation established with other entities inside and outside the academic scope should be noted.

Effectively, the majority of the respondents establish collaborative dynamics with other institutions/organic units of higher education, with business/commercial/industrial associations and with public entities of entrepreneurial promotion, as well as with businessmen agents.

The main advantages perceived by the actors of these collaborative dynamics are related to the access to a broader and diversified volume of information, to a greater projection/dissemination of the activities developed by the entities, the confirmation of knowledge of new practices and work methods and with the enhancement of resources available. Despite the acknowledgement of the existence of benefits deriving from the established collaborative dynamics, it was equally possible to detect the occurrence of difficulties and obstacles in the range of the cooperation activities. Effectively, 48.8% of the respondent academic stakeholders stated they faced difficulties in the framework of the cooperation activities developed, namely: communication problems, management of industrial property, peer competition, different work methodologies, different financial resources, different organisational models (time management, timetables, scheduling of the activities, objectives and mission of the entities, administrative and bureaucratic procedures) and other cultural differences, as is the case of international scope partnerships.

4.3. Balance and assessment of the accomplished initiatives

First and foremost, we would like to highlight the non-linearity in the performance of the stakeholders, by taking into account the three sequential stages of the process of entrepreneurial learning. Moreover, we can confirm the difficulty in distinguishing the different entities through the operating focus, which is why it is expectable that there should be some overlapping in the collaboration or network in the scope of higher education. As one can observe from **Table 1**, the entities are positioned in the three stages of the learning process, namely: (i) awareness, (ii) training, (iii) mentoring and follow-up. Nonetheless, it was possible to observe a higher concentration of answers in activities such as (i) organisation of clarification sessions and awareness devoted to the topic of entrepreneurship (92.7%), (ii) organisation of training sessions in entrepreneurship (e.g., courses, workshops, e-learning) (87.8%) and (iii) promotion and/or participation in the organisation of idea contests (85.4%). In other words, a large part of these entities focuses their activity on the awareness and training stage and a smaller percentage focuses exclusively on the activities related to mentoring and monitoring. Effectively, this observation does not create perplexity since the activities framed in this last stage demand a greater organisational and financial complexity and complexity of services rendered that these entities still do not hold, partly due to their reduced seniority.

From the assessment of the profile of the participants in these initiatives, we mainly highlight the participation of students, graduates and academic staff, the elements who are directly linked to the HEI. We observe that there is a reduced expression of participants outside the academic community, in particular, those that are framed in the “professional” category. However, even if this larger presence of these elements is obvious, the assessment that the stakeholders make of their participation is moderate, since 58.5% recognise a partial adhesion and 19.5% point to “low” involvement in the stimulated initiatives. This moderate evaluation may point out that there is the need to invest in this domain, in a way to boost the levels of participation of the individuals involved in these initiatives.

Initiatives accomplished in the different acting stages of the stakeholders		(%)
Awareness	Organisation of clarification sessions and awareness dedicated to the issue of entrepreneurship	92.7
	Promotion and/or participation in the organisation of idea contests	85.4
	Production of information materials on the topic of entrepreneurship	65.9
Training	Organisation of training sessions on entrepreneurship (e.g., courses, workshops, e-learning)	87.8
Mentoring and monitoring	Concession of physical spaces for incubation and speeding-up of entrepreneurship ideas/projects	51.2
	Support to patent registration and/or protection of intellectual property rights	53.7
	Development of mentoring and monitoring activities of entrepreneurial projects/business ideas	80.5

Table 1. Initiatives to promote entrepreneurship/employability (2007–2013).

As for the training area of the participants, we noticed a clear predominance of participants whose training areas are engineering, information technology and similar technical areas (30.5%) and also economics and entrepreneurial sciences (19.0%). In other words, we are witnessing training areas that are apparently more aware about the issue of entrepreneurship and which are traditionally associated with more “entrepreneurially-prone” areas.

Regarding organisational issues related with the initiatives, overall, the respondent entities consider the resources mobilised (human, financial, logistic/material, of the infrastructures and of the means of dissemination/promotion) as “adequate” or “very adequate”. Even so, it was possible to detect a less favourable evaluation with regard to the adequacy of the financial resources and of the means of dissemination. Stipulating the area of the financial resources, the main sources of funding of the initiatives developed referred are their own revenues (32.9%) and the patronage or the sponsorship of private entities (22.0%). Only 7.3% of the respondent entities mentioned as main source of funding, the “transfer of funds from the Higher Education Institution” they are linked to.

The critical aspects identified in their activity report to aspects such as: (i) the management of large teams, (ii) the coordination of timings and agendas in the scope of the partnerships and collaborations with other entities, (iii) the lack of motivation of the students and of the academic staff towards the topic of entrepreneurship, (iv) the low adhesion of the students to the extracurricular activities (partly due to the already high hourly load of the students), (v) the difficulty in mobilising/involving other entities, (vi) the difficulty in the promotion of the activities, (vii) the scarcity of resources, namely human, financial and material, (viii) the complexity of the financing processes associated with the revitalisation of the initiatives, as well as (ix) the existence of some resistance towards the issue of entrepreneurship.

In broad terms, the perceived assessment of the impact of the initiatives developed with greater importance derive from the stimulus of the creative capacity and entrepreneurial spirit (51.2%), of the development of entrepreneurial competences (48.8%) and of the increase of the information about supports to entrepreneurship and funding (46.3%). On the contrary, they consider that there is a minor impact in aspects such as: (i) the emergency of entrepreneurship with a social nature/third sector (56.1%), (ii) the revitalisation of the R&D activities (36.6%) and (iii) the creation of networks to support entrepreneurship (19.5%).

5. Final remarks

Entrepreneurial education challenges universities to draw new collaborative training strategies focused on the students, involving the whole academic community and diversified stakeholders in the learning process. This perspective is anchored on the concepts of “Apprenticeship Society” and “Lifelong Education Learning”, wagering on the complementarity between formal, non-formal and informal learnings.

It is in this broader framework that we intended to understand the importance of entrepreneurial learnings via the intervention of the stakeholders and reflect upon the importance that

these hold in the development of approaches, which are more integrated of their performance in the academic context. The results of the study evince the need to: (i) accomplish territorialised diagnoses about the conditions and usage of support infrastructures to these learnings; (ii) acknowledge the entities bearing a relevant role in the “preparation for work”; (iii) promote greater articulation of the performance of the entities in the different learning stages; (iv) recognise the tension between “informalisation” of the initiatives and the demand for formalisation of the learnings through their integration in the curricular plans and (v) promote the integration of a cross-sectional approach based on gender equality and opportunities in the design of programmes in this area.

It should be highlighted that the emergency of the entrepreneurial HEI constitutes an answer, both to the social and economic challenges and to the growing importance of knowledge in the regional/national development through innovative systems. The inter-institutional dynamics may be renamed as network, because they act in a dynamic environment, of cooperation, operationalised through a multiplicity of regular connections and between different key actors. To sum up, the countries which encourage the creation of cooperation networks and of strategic alliances between the different key actors tend to obtain a competitive advantage, and especially, to divulge the knowledge produces local and nationally.

This study may have an enormous impact among the different political, academic, business agents, for it is constituted as a pilot example of the mapping and evaluation of initiatives to promote entrepreneurship in the academic context.

Author details

Ana Paula Marques

Address all correspondence to: amarques@ics.uminho.pt

Interdisciplinary Centre of Social Sciences, University of Minho, Braga, Portugal

References

- [1] Gibb AA. In pursuit of a new entrepreneurship paradigm for learning: Creative destruction, new values, new ways of doing things and new combinations of knowledge. *International Journal of Management Reviews*. 2002;4(3):233-269
- [2] Matlay H. The impact of entrepreneurship education on entrepreneurial outcomes. *Journal of Small Business and Enterprise Development*. 2008;15(2):382-396 [cited 20 June 2017]; Available from: <http://www.emeraldinsight.com/doi/pdfplus/10.1108/14626000810871745>
- [3] Blenker P, et al. The questions we care about: Paradigms and progression in entrepreneurship education. *Industry & Higher Education*. 2011;25(6):417-428

- [4] EC (European Commission). *Entrepreneurship 2020 Action Plan—Reigniting the Entrepreneurial Spirit in Europe*. 2012; COM(2012)795. Available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:en:PDF>
- [5] EC (European Commission). *Effects and Impact of Entrepreneurship Programs in Higher Education*. Brussels: European Commission; 2012b
- [6] Marques AP. *Aprendizagens empreendedoras no Ensino Superior. Redes, Competências e Mercado de Trabalho*. N. Famalicão: Editor Húmus; 2016
- [7] Amaral A, Magalhães A. The emergent role of external role of stakeholders in European higher education governance. In: Amaral A, Jones Glen A, Karseth B, editors. *Governing Higher Education: National Perspectives on Institutional Governance*. Netherlands: Kluwer Academic Publishers; 2002. p. 1-21
- [8] Freeman ER. *Strategic Management: A Stakeholder Approach*. Boston: Pitman; 1984
- [9] Etzkowitz H, Leydesdorff L. The dynamics of innovation: From National Systems and “Mode 2” to a Triple Helix of university–industry–government relations. *Research Policy*. 2000;**29**(2):109-123
- [10] Jongbloed B, Enders J, Salerno C. Higher education and its communities: Interconnections, interdependencies and a research agenda. *Higher Education*. 2008;**56**:303-324
- [11] Pinho JC, Sá E. Entrepreneurial performance and stakeholders' relationships: A social network analysis perspective. *International Journal of Entrepreneurship*. 2013;**17**:1-19
- [12] Redford D. (Org.) *Handbook de Educação em Empreendedorismo no Contexto Português*. Porto: Universidade Católica Editora; 2013
- [13] Pittaway L, Cope J. Entrepreneurship education—A systematic review of the evidence. *International Small Business Journal*. 2007;**25**(5):477-506
- [14] Matlay H, Carey C. Entrepreneurship education in the UK: A longitudinal perspective. *Journal of Small Business and Enterprise Development*. 2007;**14**(2):252-263
- [15] Gorman G, et al. Some research perspectives on entrepreneurship education, enterprise education and education for small business management: A ten-year literature review. *International Small Business Journal*. 1997;**15**(3):56-77
- [16] Martins ML. A liberdade académica e os seus inimigos. *Comunicação e Sociedade*. 2015;**27**:405-420
- [17] Tomlison M. Graduate employability: A review of conceptual and empirical themes. *Higher Education Policy*. 2012;**25**:407-431
- [18] Santos BV. A Universidade no século XXI: para uma reforma democrática e emancipatória da Universidade. *Educação, Sociedade & Cultura*. 2005;**23**:137-202
- [19] Teicher U. *Higher Education and the World of Work: Conceptual Frameworks, Comparative Perspectives, Empirical Findings*. Rotterdam: Sense Publishers; 2009

