

The dynamization of Higher Education Institutions for the creation of Tourism Companies in Portugal

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ABSTRACT

The main objective of this research is to identify if the Institutions of Higher Education (IHE) impel the creation of tourism companies, and in what form. The theoretical approach, based on the theory of networks and the theory of entrepreneurship, supports the basic idea of the importance that innovation networks have in the process of business creation, as they allow to bridge

deficiencies and reinforce positive aspects in order to influence the creation process of companies. For the data collection, a questionnaire was developed, answered by the nascent entrepreneurs belonging to IHE, obtaining a total of 255 responses. The results show that the cooperation and the development of relations with other agents in the innovation network appear as the main ways in which the IHEs encourage the creation of tourism companies, and the results show that the attitude of the IHE for the creation of companies influences the decision of the nascent entrepreneurs to move forward to the process of setting up a company. As for identifying the factors that facilitate the creation of companies supported in innovation networks, the main ones are the actors of the network and the organizational resources. In addition, in identifying and analysing obstacles to the creation of companies supported in innovation networks, it was found that the main factors are knowledge and location. The main conclusions of this research highlight the importance of IHE in the phenomenon of tourism business creation when inserted into innovation networks.

Key Words: Tourism Companies, Information and Communication Technologies, Innovation Networks, Institutions of Higher Education (IHE), Knowledge-based economy.

INTRODUCTION

In today's world of intense globalization and fierce competition, new venture creation contributes to introduction in the business sector of new technologies, new products/services and new forms of organization, and is shown to be one of the fundamental factors for economic growth, job creation, market efficiency, renewal of economic structure and spread of innovation, as well as for ventures' and countries' improved global competitiveness (Hamermesh, 1993; Keister, 2000; Reynolds et al., 1995; Simoes et al., 2014; Wennekers & Thurik, 1999). In parallel, we find that innovation networks, besides allowing reduced uncertainties through cooperation among agents, aim to produce and share knowledge and scarce resources, share costs and risks, and obtain gains in efficiency due to division of work, among other benefits (Braunerhjelm, 2008; Camagni, 1991; Cassiman & Veugelers, 2002; Felman et al., 2006; Weber & Khademian, 2008). In these innovation networks, higher education institutions (HEI) play an important part, since they allow stimulation and spread of the various contributions offered by the network, not only locally and regionally but also nationally and globally (Audretsch & Phillips, 2007; Braunerhjelm, 2008; Felman et al., 2006).

In the current economic climate faced by various countries in the European Union in general, and Portugal in particular, and given current rates of unemployment, which have been increasing recently, stimulating entrepreneurialism able to lead to venture creation, seems to be one of the measures that can make a contribution to minimizing economic and social problems which have hit the country in recent years. Therefore, in the Portuguese context, it becomes

fundamental to analyse the factors that can contribute to promoting venture creation. More investigations are needed to study the factors stimulating and restricting the venture creation process.

This research aims to analyse whether venture creation is stimulated by higher education institutions through innovation networks. The central question for investigation is the following: What is the role of HEIs in venture creation within innovation networks? To answer this question, investigation hypotheses are formulated to be tested empirically. These hypotheses are related to two specific objectives, namely: (i) to identify the attitudes of HEIs towards venture creation, analysing the best ways to stimulate venture creation from HEIs set in innovation networks (ii) to identify the factors facilitating venture creation.

The paper is structured as follows: the next section reviews the literature on venture creation associated with innovation networks. In the same section, the investigation hypotheses are formulated regarding the specific objectives presented. The following section describes the investigation methodology used to test the hypotheses. In section four, the results are presented and discussed. Finally, the fifth section presents final conclusions, and future investigations to be developed on this topic are suggested.

LITERATURE REVIEW

In network research, the last two decades revealed a new interconnected phenomenon: entrepreneurship (Hoang & Antoncic, 2003; Woollard et al., 2007). Concerning network contents, inter-personal and inter-organizational relationships are seen as the means by which actors gain access to a variety of resources, including knowledge, helped by other actors (Hoang & Antoncic, 2003). Consequently, HEIs will be an important source of knowledge. When competitiveness was based on routine tasks, HEIs played an important social, political and cultural role, but in economic terms, they played a less direct role, concerning mainly the training of future venture collaborators (Audretsch & Phillips, 2007). However, as competitiveness became dependent on knowledge, ideas and creativity, HEIs became crucial for economic development, giving rise to the concept of entrepreneurial universities (Audretsch & Phillips, 2007; Clark, 2004; Van Vught, 1999). In this connection, HEIs emerge as central actors in a knowledge-based economy, with the expectation that they play an active part in promoting innovation and technological change (Bramwell & Wolfe, 2008).

In this context, entrepreneurial universities are found to be actors belonging to an innovation network made up of diverse actors, where government and public policies will have a relevant role. For HEIs to be able to spread their knowledge as actors, they must be inserted in innovation networks, but how can they stimulate the spread of knowledge and venture creation?

Therefore, innovation networks can bring key benefits for venture creation, such as:

- Network contents (Hoang & Antoncic, 2003; Marouf, 2007);
- Network management (Granovetter, 1973; Huang & Chang, 2008; Marouf, 2007; Nelson, 1989);
- Network structure (Granovetter, 1973; Huang & Chang, 2008; Marouf, 2007; Nelson, 1989).

These three components emerge as key elements in models aiming to explain innovation networks that develop entrepreneurial activities, just as the network's impact on the results of these activities. The entrepreneurial process, according to Shane & Venkataraman (2000), consists of distinctive activities, such as identification of opportunities, mobilization of resources and creation of an organization. It follows that HEIs will be understood as actors par excellence to integrate an innovation network, since they possess teaching staff and various units of investigation that can help venture start-ups, young entrepreneurs, to identify opportunities, mobilize resources and create an organization (Braunerhjelm, 2008; Eiriz, 2005; Felman et al., 2006; Huang & Chang, 2008; Smith, 2003; Weber & Khademian, 2008).

Therefore, the process of developing an innovation network, at the initial creation stage, will surprisingly be related to the characteristics of the entrepreneurs (Hoang & Antoncic, 2003). Consequently, when the entrepreneurs develop the business plan, this will be of high quality, since by belonging to an innovation network, they will be able to incorporate its benefits. So the closer the contacts between the various network actors, the higher the quality of information.

The concept of entrepreneurial universities emerged with Etzkowitz, in 1983, describing the institutions that perform a critical role in regional economic development (Audretsch & Phillips, 2007; Bramwell & Wolfe, 2008; Clark, 2004; Muller 2006; Veciana, 2008; Woollard et al., 2007). The term of entrepreneurial universities, always involved in an innovation network, was adopted by academics and politicians to describe HEIs that carried out this mission (Clark, 2004; Huggins et al., 2008; Van Vught, 1999). Development of an entrepreneurial culture can be seen as an essential mechanism for HEIs to become effectively involved in economic development, Etzkowitz & Leydersdorf (2000) having described the evolution of tripartite relationships between HEIs, industry and government through the Triple Helix III model (Bercovitz & Feldman, 2006), emphasizing the relevance of the relationship between HEIs and industry, stating that this relationship reveals the importance of HEIs for the regional system of innovation, this form being the basis for economic development.

The relevance of the entrepreneurial university is shown by being inserted in an innovation network, since it stimulates contributions at the local, regional and even national level. With this direction, HEIs make a key contribution, generating new ideas and knowledge in the basic disciplines that are the traditional nucleus of HEIs. When the demand for knowledge and practical applications increased, programs were created which were applied and adapted to the world of work. A crucial distinction between those applied programs and basis disciplines is the trainer's orientation towards making a contribution to society beyond the walls of the HEI. To be sustainable

over time, applied programs require a demand and interest outside the HEI. On one hand, their development and evolution are typically formed by society’s needs and interests; on the other, the evolution and development of basic disciplines tend to be molded and influenced by the disciplines themselves (evolution of knowledge) (Audretsch & Phillips, 2007; Woollard et al., 2007).

However, not even the addition of applied investigation and professional education generates sufficient spillovers from the source of knowledge – the HEI – to commercialize the increased generation of innovations in regional and national economies. Investment in traditional subjects and applied programs is not enough. In an effort to penetrate the knowledge filter and ease the spillover of generated knowledge and ideas from the HEI, a third area was developed, representing the mechanisms for transferring knowledge and technology created in the HEI, such as technology units, incubators and centers of investigation in HEIs. These units have mechanisms that aim to facilitate the spillover of internal knowledge to the outside (Veciana, 2008; Woollard et al., 2007).

As referred to above, knowledge spillovers are the way of transferring knowledge directly or indirectly from one party to another (Deeds et al., 1997; Gilbert et al., 2008; Malecki, 1985). Spillovers are generated by institutions that have innovative activities and are valid because these activities provide knowledge that is new and relevant for the institution receiving (Deeds et al., 1997; Gilbert et al., 2008; Malecki, 1985). Therefore, HEIs will transfer the knowledge they create, through an innovation network, but will also receive knowledge and innovation generated by the various actors making up that network.

In this connection, the conceptual investigation model aims to determine the main factors influencing the creation of tourism ventures, stimulated by HEIs within innovation networks. Figure 1, contemplates the dependent variable of tourism venture creation and a set of explanatory (independent) variables, referring to HEIs and innovation networks. The variables associated with HEIs and innovation networks are related to the relationships HEIs maintain with existing organizations, with the knowledge they have available, with the training supply they offer, and the forms and activities that stimulate venture creation which are used in HEIs.

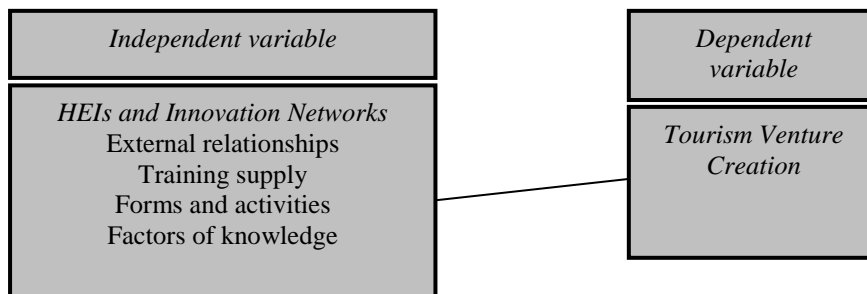


Figure 1 – Conceptual model

From the literature review, a set of hypotheses are formed to be tested empirically.

Concerning the attitude of HEIs having an influence on tourism venture creation, the HEI makes a key contribution, generating new ideas and knowledge in basic disciplines that are the traditional nucleus of HEIs. This investigation aims to identify if the training supply provided by HEIs influences tourism venture creation. Therefore, the following hypotheses are presented:

Hypothesis 1: Short courses influence tourism venture creation positively;

Hypothesis 2: The place the nascent entrepreneur is educated has a positive influence on selection of the institution to provide training about tourism venture creation.

It should be noted, however, that in a knowledge and information society, the people best prepared to create and grow ventures based on new technology, and therefore with high added value, able to compete internationally and create well-paid employment, are those who are technically best prepared and motivated (Braunerhjelm, 2008; Cristóbal, 2006). In this connection, (Bramwell & Wolfe, 2008; Cox & Taylor, 2006), agree that entrepreneurship is one of the most important factors for future economic development. In parallel, the aim is to identify and analyse the best forms used by HEIs to encourage tourism venture creation within innovation networks, and so the following hypotheses are presented for investigation:

Hypothesis 3: HEI cooperation with other organizations influences tourism venture creation positively;

Hypothesis 4: Scientific investigation developed in HEIs influences tourism venture creation positively;

Hypothesis 5: Training given in the field of entrepreneurship influences tourism venture creation positively.

RESEARCH DESIGN

Sample and data collection

The data used were gathered from a questionnaire, which made a survey of nascent entrepreneurs from HEIs. It contemplates, therefore, potential entrepreneurs, i.e. people who are interested in starting a new tourism business, who hope to be the owner of a new business or part of it, and who have been active in trying to start up a new business in the last 12 months (Wagner, 2004).

In this research, the population is all nascent tourism entrepreneurs from universities and polytechnics in the state sector. It is therefore made up of individuals who participated, of their own free will, in events with a view to venture creation and development of entrepreneurial

initiatives, namely: competitions (Empreenda, PoliEmpreende 6th Edition and START and technologically-based entrepreneurship courses (CEBT and CEBCT)).

The population is composed of 834 participants, to whom questionnaires were sent and later completed by the respondents, the total number of questionnaires received being 255, representing a reply rate of 31%. Consequently, the sample error obtained can be calculated according to (Hair et al., 1998). After calculation, the sample error obtained in this research was 5.2%.

Description and data characterization

This study is a guide to allow higher education institutions to identify and analyse the possible relationships between the nature of HEI actions and new tourism venture creation. This research aims to determine the factors that have an influence on stimulation of tourism venture creation by higher education institutions through innovation networks. Therefore, the aim is firstly to analyse if HEIs encourage tourism venture creation through relationships developed between the actors of HEIs and innovation networks, and secondly, the factors that facilitate tourism venture creation.

In this study, creation of new tourism ventures is measured from the information gathered about nascent entrepreneurs' intentions to create a new tourism venture or develop a project within an existing venture, this being considered the dependent variable. Regarding the independent variables, these are represented by the best ways to stimulate tourism venture creation (Table 1) and by the factors within HEIs that facilitate tourism venture creation (Table 2).

ANALYSIS AND DISCUSSION OF THE RESULTS

The majority of respondents are male, with the majority in the sub-system of polytechnic education presenting an age-group between 20 and 30, while in university education this presents an age-group between 20 and 35. In this connection, according to (Kim et al., 2003; Simoes et al., 2014; Wagner, 2004), the age of nascent entrepreneurs is related to expectations of return on investment, together with their academic qualifications, aversion to risk and the characteristics of the region where they live.

It can be summarized that the respondents, whatever the sub-system of higher education, in most cases have a first degree, the majority belonging to the scientific domains of Economics/Business and Engineering (around 91% of respondents). Another characteristic of respondents is that they do not have previous experience of tourism venture creation or in the sector of activity where they develop the business initiative and have not previously carried out management functions. Another finding of the research into general aspects of the respondents is that they would pay for specific training, but their opinion is that this should be included free of charge in academic studies.

The data obtained from the questionnaire were subjected to the statistical treatment of factor analysis. Considering the aim to identify the attitude of the HEI towards tourism venture creation, the best ways to stimulate tourism venture creation from HEIs within innovation networks were analysed. The factor analysis using principal component analysis and varimax rotation with the Kaiser– Meyer – Olkin KMO (0.80) method Bartlett Test of Sphericity =631.879 and significance < 0.001, providing support for convergent validity. From data analysis, three factors were identified, in which the variables were grouped as follows (Table 1):

Table 1– The best ways to stimulate tourism venture creation

Variable	Factor 1 Cooperation and development	Factor 2 Scientific research	Factor 3 Training
Partnerships with HEIs	0.781		
Post-graduate courses	0.743		
Masters	0.663		
Organizations	0.628		
Partnerships with tourism businesses	0.601		
Conferences and seminars		0.775	
Spreading awareness through articles		0.737	
Publication of pedagogical material		0.714	
Tourism courses			0.833
Competitions			0.735
Subjects included in degree courses			0.572

We find that cooperation and development, which cover various forms of cooperation with other organizations and consultancy, are believed to be the best way, as they reach a wide public and will be an excellent way for HEIs to encourage tourism activities.

Concerning the objective of identifying what facilitates tourism venture creation, the data obtained from factor analysis allowed identification of two factors (Table 2), where the variables are grouped as follows:

Table 2 – Reasons for choosing the importance of factors that facilitate tourism venture creation

Variable	Factor 1 Network actors	Factor 2 Organizational resources
Training provided by professionals in the business sector	0.772	
Participation/proximity of the school to organizations related to tourism	0.656	
Services provided to the community		0.718
Information, orientation and accompaniment provided by bodies existing in the school (OTIC, GAPI; among others)		0.667
Training given by teaching staff		0.586

The factor analysis using principal component analysis and varimax rotation with the Kaiser–Meyer – Olkin KMO (0.54) method, Bartlett Test of Sphericity = 93.994 and significance < 0.001, providing support for convergent validity.

We find the factor identified as network actors was identified by tourism nascent entrepreneurs as the most important.

CONCLUSIONS

The main objective of this research is to identify the factors that influence the capacity of HEIs to stimulate tourism venture creation through innovation networks. Based on the theoretical review of the literature, it was found that tourism venture creation is influenced by a vast and complex number of factors, which are not dealt with exhaustively in this study. However, a set of internal and external factors of HEIs stood out as being able to influence tourism venture creation within innovation networks. By analysing the contribution of each of these factors to the phenomenon of tourism venture creation in HEIs, it was found that the variables associated with HEIs and innovation networks are connected to the relationships HEIs form with existing organizations, with the knowledge they have available, with the training they provide, and with the forms and activities that stimulate tourism venture creation and which they use. The conceptual model presented proposes that the characteristics of HEIs influence tourism venture creation through innovation networks.

The principal results obtained with factor analysis took into consideration the previously mentioned objectives of the organizations.

As for identifying the attitude of the HEI towards tourism venture creation, based on identification of the best ways to create tourism ventures; we can conclude that cooperation and development are understood as the best way for HEIs to encourage tourism activities. From the factors assumed by the respondents, it was curious that they consider scientific research a better way to encourage tourism activities than training, a situation which will probably have to do with the demands of the market to guarantee the creation and development of new tourism businesses by nascent entrepreneurs.

Regarding the objective of identifying what facilitates tourism venture creation, the nascent entrepreneurs selected the factor identified as network actors as the most important, as this has variables, as the very name indicates, that incentivize and dynamize the diverse elements integrating the innovation network, promoting the share of knowledge and supporting nascent tourism entrepreneurs at the various stages of tourism venture creation.

From careful analysis of previous results, it is possible to detect some limitations in the study carried out. Certainly, the main limitation of this research derives from the subjects for study being only tourism entrepreneurs participating in the selected competitions and training courses. Regarding suggestions for future researches related to tourism venture creation, it could be important in other researches to make a careful analysis of the various ventures formed and which institutions stimulated their creation.

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