

HARD WORKING ANT: AN ECO-TOURISM SPIN-OFF CREATION TALE

HARD WORKING ANT: UMA FÁBULA SOBRE A CRIAÇÃO DE UMA SPIN-OFF DE ECO-TURISMO

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ABSTRACT

The creation of knowledge-based firms is of central importance due to its great impact in economic development. This article explores the case of E1, an academic spin-off operating in eco-tourism in the Algarve, Portugal. The theoretical framework of the Actor-Network Theory (ANT) is used as a methodological approach to understand translation and how different actors continuously share, disseminate and adapt their languages, problems, identities and interests. The use of ANT allows focusing on the knowledge transfer process, analyzing and understanding complex objects, where and how heterogeneous associations are created. The analysis highlights the limitations and challenges that a young and qualified entrepreneur finds to transform his ideas in a viable business.

Keywords: Eco-Tourism; Academic Entrepreneurship; Spin-off; Actor-Network Theory; Algarve.

RESUMO

A criação de empresas baseadas no conhecimento é de importância central devido ao seu grande impacto no desenvolvimento económico. Este artigo explora o caso de E1, uma spin-off académica em eco-turismo no Algarve, Portugal. O referencial teórico da Teoria do Ator-Rede (Actor-Network Theory - ANT) é usado como uma abordagem metodológica para compreender a tradução e como os diferentes atores continuamente se relacionam, disseminam e adaptam as suas linguagens, problemas, identidades e interesses. O uso da ANT permite focar o processo de transferência de conhecimento, examinar e compreender objetos complexos, onde e como associações heterogêneas são criadas. A análise destaca as limitações e desafios que um jovem empresário e qualificado encontra para transformar as suas ideias num negócio viável.

Palavras-chave: Eco-Turismo; Empreendedorismo Académico; Spin-off; Teoria Ator-Rede; Algarve.

JEL Classification: M13, 031, Q57

1. INTRODUCTION

Academic entrepreneurship has assumed a growing importance as a mechanism to promote employment and social cohesion and plays a central role in economic regeneration and competitiveness of the territories. In knowledge and technology intensive regions the relation between academic entrepreneurship and regional development is clear. In territories where the main economic activities have less evident technological content, like in tourism destinations, the role of universities may seem less relevant and academic entrepreneurship itself may be considered less critical.

The central objective of the paper is to understand the challenges that an academic entrepreneur has to face to implement its innovative idea in a mature tourism region. For that this article explores the case of E1, an academic spin-off in the Algarve operating in eco-tourism.

This southern Portuguese region faced in recent decades a significant economic dynamism due to the exploitation of excellence natural conditions for Sun and Beach tourism. The focus on tourism has attracted investments and promoted growth, but often an asymmetric one, dichotomized between the interior and the coast and causing a weak economic base exposed to external shocks (Guerreiro, 2008). Recently, emerging from the university, several entrepreneurs initiated their own businesses in eco-tourism providing innovative products that can give more resilience to the sector that heavily felt the recent economic turbulence (Cooke, Porter, Cruz and Pinto, 2011). Sustainable tourism products emerge as interesting areas for diversification of more mature destinations but remain unclear the potential and preferences of tourists (Miller, Rathouse, Scarles, Holmes and Tribe, 2010). Despite the tensions that exist in tourism where small entrepreneurs have great difficulty in adapting to the pressures of an activity dominated by large operators (Dahles and Bras, 1999), their role is central in the innovative dynamic and rejuvenation in the life cycle of tourist destinations (Russel and Faulkner, 2004).

In parallel, innovations in tourism are difficult to achieve but simple to imitate, especially when the processes are very visible and the technology content is less sophisticated (Weidenfeld, Williams and Butler, 2010). The case of E1 was in fact one of the first examples of this wave of regional small-scaled entrepreneurship on eco-tourism. The replication of innovations in tourism is mainly limited by the high tacit component of knowledge that many tourism activities contain.

To explore the case of E1 the article is organized as follows. In section 2, academic entrepreneurship is briefly introduced, underlining the main emergence of this notion as a crucial topic and stressing the relevance of this phenomenon as inducer of economic dynamics. A third section is the case study itself. Actor-Network Theory (ANT) is debated as a qualitative approach to study translation processes. E1 is presented in terms of its innovative character, a chronology with the moments of translation until the stabilization of the actor-network and its transformation in an obligatory passage point in Algarve's eco-tourism scene. The article closes with some conclusions.

2. ACADEMIC ENTREPRENEURSHIP AS A GROWTH ENGINE

2.1. The Emergence of Entrepreneurship

In the XVIII century, entrepreneurship was commonly defined as self-employment of any kind or a characteristic of someone who undertook a specific project (Hobday and Perini, 2005). Usually the birth of the expression is linked to Richard Cantillon who emphasized the role of intermediaries between the landowners and their tenants on

efficient agricultural production. This was a vision of entrepreneurship on the supply side showing the importance in production and distribution of goods and services. The entrepreneur was a mediator who assumed the market approach risks, being the actor that led the products from where they had smaller value to places where they worth more, for example, agricultural products from rural to urban areas.

However, the vision that made well-known the expression of entrepreneurship was Schumpeter's demand side notion (Link and Siegel, 2007). In this view, the entrepreneur takes a central role in changing the demand with the creation of new goods, services, raw materials and markets. The idea of creative destruction is linked to the renewal of demand and stresses the linkage between entrepreneurship, innovation and economic growth. The contribution of studies in the last quarter of the XX century and the beginning of the XXI allowed a conceptual evolution, from entrepreneurship to be defined to include much more than creating a business, generalizing to a notion that includes the generation and implementation of ideas with potential to succeed (Kaplan and Warren, 2007).

The entrepreneurship understanding needs to take into consideration the individual and their cognitive and non-cognitive dimensions, the planned project, the environment and external context as well as the connections between them over time. Entrepreneurship is a complex process where the result is only partially dependent on entrepreneurs' characteristics, although it remains to be seen as the main element (Gaglio and Katz, 2001; Shane, 2000). As underlined by Shane and Venkataraman (2000), entrepreneurship is composed by the sources of opportunities, the process of discovery, evaluation and exportation of opportunities and the set of actors who discovers, evaluates and exports these opportunities.

Focusing the entrepreneurship side connected with business creation is relevant to stress that it is not a linear process at all and is characterized by advances and retreats, essential to the success of the transformation of the idea in a viable company. One of the key aspects of entrepreneurship is the emergence of the idea that there is no more than the recognition of economic opportunity. The emergence of the idea and the recognition of new opportunities are often strongly linked to social networks which reveals the importance of these factors in the entrepreneurship phenomenon. The next stage to the emergence of the idea is that in which the entrepreneur decides to move forward. To this end, the entrepreneur negotiates with their networks the change of status, being crucial to this negotiation process the exogenous factors such as displeasure with the job, motivation, degree of involvement and the tolerance to risk, and the intrinsic factors, such as education, age or gender, and the environment factors, the competition, the available resources, government policy, legislation and incubation. Assuming that the phase that marks the decision to proceed is successful, the entrepreneur walks into the implementation phase, where the variables related to personal characteristics are largely decisive for the consolidation of the business and its development. Finally, the last stage to overcome is the phase of growth where emerge the importance of the organizational dimension, which together with the individual and the environmental, will determine the sustainability of the project.

2.2. The Relevance of Academic Entrepreneurship

It is increasingly difficult to separate entrepreneurship from knowledge, serving the entrepreneurial activities as means to induce knowledge spillovers, which will contribute to economic growth and assist regions being more able to seize entrepreneurial opportunities (Audretsch and Keilbach, 2007, 2008). Several authors suggest that knowledge spillovers are geographically limited and localized near the source of knowledge (Jaffe, 1989;

Audretsch and Feldman, 1996; Audretsch and Stephan, 1996), which transforms the university in the ideal context for the emergence of entrepreneurial activities. According to the studies of entrepreneurship and knowledge spillovers, a context with more accumulated knowledge will generate more entrepreneurial opportunities. By contrast, a context with an inadequate level of knowledge will not provide the emergence of entrepreneurial opportunities. The academic entrepreneurship by having a greater economic impact is increasingly present in the concerns of policy makers and scientific research in this field.

Djorkovic and Souitaris (2008) tried to provide a comprehensive review of the literature about the phenomenon of spinning-off from academic institutions focusing the different levels of comprehension. Firstly the authors identified the macro level studies, which corresponded to the analysis of incentives and policies for spinning-off at the governmental level. Secondly, the meso level, related to organizational structure, institutional dynamics and structure of incentives for the knowledge transfer corresponds to university level. Finally, a micro level approach which corresponds to the analysis of individual behavior, specially the characteristics of these companies and the common characteristics of those individuals that pursue entrepreneurial initiatives. A strict notion of spin-off is the proposed by Birley (2002), a company that emerges from the universities through the commercialization of intellectual property or knowledge transfer developed within academic institutions. This notion can be extended with the inclusion of start-ups that emerge from the regional context where the academia is located and benefits from existing knowledge or support from the university, for its consolidation. This support from the universities can be, for example, as specialized consultancy in knowledge transfer offices or incubation services in initial stages.

It is worth to distinguish between intrapreneurship and entrepreneurship (Pinchot, 1985). While entrepreneurship is the act of developing a new venture outside of an organization and is linked to the traditional vision of creating a company, intrapreneurship refers to the practice of developing a new venture within an existing organization in order to exploit a new opportunity capable of generating economic value. This last type of entrepreneurship, helps to the renewal and revitalization of the organization own activity, through innovation and continuous improvement. Parker (2009) exemplifies the factors that promote the nascent intrapreneurship in relation to the nascent entrepreneurship, focusing in the attention that literature has released around the importance of human capital (Becker, 1964; Zucker, Darby and Brewer, 1998; Helfat and Lieberman, 2002). Thus, the author focuses his approach in the distinction between general human capital and specific human capital. General human capital comprises the skills, knowledge, experience and capabilities useful in a variety of productive uses, including new or existing organizations. The specific human capital, in turn, refers to skills, experience, knowledge and capabilities, such as those implemented by companies in specific training programs, which are primarily useful for the organization that supplies them. Parker (2009) emphasizes that it is expected that human capital is more usually associated with nascent entrepreneurship than with nascent intrapreneurship.

Beyond the strong influence that human capital has about entrepreneurship, it is possible to enhance the not less importance that social capital contains on the development of an entrepreneurial activity and its success. Social capital refers to the number and intensity of actors' social relations. The intensity is higher when both parts have interactions with a longer duration and often, creating a cooperation and mutual trust history (Marsden and Campbell, 1984). The importance of social capital lies on the fact that facilitates the process of identifying opportunities and mobilizing resources. Moreover, social relations also help the entrepreneurs to have access to information about a particular industry or region that otherwise they didn't have. As discussed by

Rutten, Westlund and Boekema, (2010) social capital has a strong spatial dimension. The contributions of Dahl and Sorenson (2008) show that it is possible to see social capital importance through the choice of a location for entrepreneurs start their activity and the effect of this choice in their rate of success. The authors demonstrate that the lack of social capital leads to strong constraints on the ability of entrepreneurs to create a company in a region where they have not strong social connections. Focusing on the Danish case, these authors concluded that entrepreneurs tend to start businesses in areas where they have deep roots. Companies' performance has a tendency to improve with the location in regions where the entrepreneurs are embedded in relevant social networks. Thus, one of the corollaries of Dahl and Sorenson (2008) is the geographical dimension of social capital, something that fits with the idea that entrepreneurs cannot just carry their social capital, as they can with the financial and human capital. Consequently, social capital constrains the entrepreneurs' choice of location to develop a business, in the sense that it tends to fix them in areas where their social connections reside and in which they may have some advantage.

Thus, entrepreneurship is increasingly a phenomenon whose mechanisms has a central importance in economic growth, reflected in nowadays society characterized by more consolidated entrepreneurial dynamics. DeCleyne, Tietz, Braet and Schefczyk (2010) inquired 8507 spin-offs to analyze the current situation of academic entrepreneurship in Europe between 1985 and 2008. The results highlight the relevant socio-economic impact of this mechanism in generating income and employment, furthermore to the creation of markets especially in emerging sectors with high technological content. The most important factors for the creation of spin-offs were the universities ability to produce knowledge, measured by the university rank in the European context and the amount of budget available for research, but also the attention given to knowledge transfer activities, especially with the establishment of knowledge transfer offices with greater critical mass. To Audretsch (2009a, 2009b), emerges an entrepreneurial society, where knowledge-based entrepreneurship arise as the driving force of economic growth, job creation and competitiveness. The phenomenon of entrepreneurship in the academia can be considered as the ideal mean for the transmission of knowledge, crucial to the creation of advanced companies able to induce a greater economic potential of regions.

3. TRANSLATING INTERESTS IN AN ECO-TOURISM SPIN-OFF CREATION

3.1 Study Methods

In this article, the case study of the creation of the company EI is analyzed using notions imported from the Actor-Network Theory. ANT is an approach that results of work in the field of Social Studies of Science and that focuses the attention in the translation process, and as a determined central actor, usually known as the translation enabler, attempts to share its objectives and goals by engaging other actors around him to constitute obligatory points of passage in a specific domain. Classical applications of ANT are the analysis about the translation processes for the pasteurization of France (Latour, 1983) or the domestication of scallops and the fisherman of St. Briec Bay (Callon, 1986). For a recent summary of ANT, the volume of Latour (2005) synthesizes the main ideas of the theory and debates its impact in sociological thinking.

The novelty of ANT refers to its interest in analyzing these processes of collective engagement, construction and de-construction of human interaction trough linkages and networks. The fact that the all human interactions are social and happen in a context gives a broader meaning to the word "social". Social is not an adjective that disputes the

explanation of particular aspects of society with others, such as economic, environmental, scientific or organizational. The social realm is present in all human interaction, and thus the 'sociology of the social' should be replaced by the 'sociology of the associations'.

ANT gives particular attention to the agency that non-human actors may have in the translation process, supporting that artifacts may have agency in the course for the stabilization of a network. In this research attention is given to a diversity of human and non-human actors but the authors do not support the idea of a radical symmetry between these two types of entities. Humans remain central in the analysis even if particular artifacts may be crucial for the collective engagement.

The translation process is complex and involves a variety of actors, that gain relevance, abandon the process, helping for the constant instability of the network. It is common to identify four moments of translation. The first is the problematization. It regards the emergence of a specific problem that affect a group of actors and the idea of the translation enabler to become an obligatory passage point to overcome it. The second moment, the intersement, actors are attracted to the problem and begin to join forces. The third is the enrolment, where the roles of the actors are defined and coordinated. The translation enabler tries to be assumed as a spokesmen speaking for the intentions of all engaged actors. Finally, the mobilization, where actors are fully enrolled, aware of their parts and stabilize the actor-network concretizing the obligatory passage point. It is crucial to refer that even if these moments happen in time and space they should be understood as overlapping phases. The idea of stabilization in the ANT does not refer to a complete closure of the network but only a relative stabilization. The process of negotiation is never finished and a problem with a solution accepted as an obligatory passage point at a moment can be easily disappear or fade away if the actor-network is not capable of adapting for external modifications and for internal dynamics.

Our ANT implementation contrasts with the empirical analyses that focus normally quantitative dimensions to illustrate the factors that limit and increment academic entrepreneurship. This is indeed a trend of research on knowledge transfer and entrepreneurship that has given attention to quantitative dimensions. To complement the information from these quantitative studies it may be useful to use qualitative approaches in which are possible to try to understand the particularities of concrete cases.

Several authors have tested the adherence of ANT to the innovation process (Oliveira, 2008), to spinning-off dynamics (Pinto, 2010), to tourism economic activities (Johannesson, 2005; Van Der Duim, 2007; Paget et al, 2010) and even in tourism epistemic communities (Tribe, 2010) as it is possible to open the black boxes that sometimes these processes constitute and are not easily detected in quantitative studies.

The process of business creation is always a process of translation, where the entrepreneur tries to convince other actors to assist him in the various stages of the company construction. After the conception of the idea, there is a need to make an effective analysis to the market to evaluate the existence of a real business opportunity. At this stage the entrepreneur seeks the support of intermediary organizations, such as academic interface entities like the knowledge transfer offices, to better understand the market, think about the geographical location, and evaluate the degree of product innovation that aims to develop and its growth potential.

Upon completion of market analysis, the entrepreneur has to plan the introduction of the product in the market, identifying the needs that must be met to implement the business idea. The needs of personnel, equipment and facilities, among others, must be detected. In parallel, the entrepreneur must identify the legislation and seek to respond to requirements for tax payment and activity licensing which may affect the development of the project. Bearing in mind the resources required to implement the idea, a fundamental

step is to find appropriate financing solutions. The three types of funding that are available to the entrepreneurs, own money or family and friends, bank credit or the entry of investors in the company, always requires a complex process of convincing the others. Only with the achievement of the translation process, the entrepreneur will be in a position to implement the idea and, as above mentioned, move to the stage of the business implementation. Even after the stabilization of the actor-network in the spin-off creation will continue a range of negotiations between the entrepreneur and concerned parts in the activity of the company until the actor-network dissipates or transforms in a new entity with different goals.

The method used was a case study through the documental analysis and in-depth interviews. The analysis of the interview used the ANT referential in order to understand, from the entrepreneur perspective, the main factors and constraints for the company creation and mapping the network of heterogeneous associations that allowed the stabilization of the actor-network.

3.2. The Translation Process of a Spin-off in the Intersection between Tourism and Scientific Knowledge

3.2.1. The Innovative Character of E1

The company presented is designated as E1. The interest of studying this particular spin-off derives from the context in which this eco-tourism company operates, between the more established activities in the region linked to tourism sector and the scientific knowledge generated in the natural sciences domain, particularly in the fields of Marine Biology.

RB is a young entrepreneur, thirty years old in 2010, student of Biological Resources Engineering which ends to graduate and specialize with the conclusion of a Master in Barcelona on the Sports field. He is a semi-professional basketball player who mentioned the importance of higher education exchange programs like ERASMUS in his personal learning. As professional experience he was an elementary school teacher of Physical Education where he learned to enjoy working with children and young people.

The E1 is a company that from 2007 to 2010 achieved the transition to the economic and financial sustainability, broadening at the same time its range of activities. It is a company that focuses on innovation through a tourism offer associated to ecotourism and educational activities, engaging strategically in dissemination and communication activities through technological tools and by associating with science communication events.

In this study case it was assumed that the entrepreneur and promoter, RB, is the translation enabler, the actor that tries to stimulate the network to achieve its objectives through the translation of interests.

According RB, E1 is:

“[...] a company of tourism animation services, we offer three types of activities [...] an area related to nautical activities, therefore boat trips in a perfectly identified place, Ria Formosa. We have inland activities [...] hiking for introduction in nature, cultural and patrimonial integration, that are activities that we performed all over the Algarve [...] we have activities with schools, we use both, in physical terms, water and land; but we consider a

different area because the activities are organized and projected, launched and executed in a completely different way. They are anchored in national [educational] programs of different disciplines, we try to tailor programs to different stages of education from the first cycle to secondary education, but we already received university classes.”

For the entrepreneur, EI has a differentiating factor:

“[...] is really the knowledge. We try that our activities be almost like a classroom, passing from guide-client to teacher-student interaction. There isn't a thing so directional but we stimulate participation and pro-activity from clients and they are invited to join activities and find out, for example, what Ria Formosa has to offer. It is extremely interesting, from the economic standpoint, the production of bivalves and then we take the customer to a bivalve farm and explain how is the production, which species exist, how the creation is made, how the growth is done, mortality rates.

[T]his is the great heritage of the company, we differentiate from what exists in the market exactly for [...] different sources, in this case of bivalve was with [a research centre] with several activities in partnership [...] The other issue is that we really have a perspective of sustainable development, in which we really do not want this into a perspective completely managerial and economist, which may be questionable from the management point of view. But we face our presence on the market in a perspective of differentiation by quality, not only in content but in relation to other aspects such as security, such as the quality of materials that really influence the boat quality, the quality of the van, the quality of the tools in which we invest, which differ from the existing market offer.”

The EI working process depends on the type of product being offered and the season:

“[...]in summer we don't work with schools, of course kids are on vacations and we dedicate ourselves completely to nautical activities. What happens is that the phone rings thirty times a day and we have the boat completely full for two months. Without being in July and August, we must work harder. The way we have to sell the boat is through partners, through tourism offices of the tourism regional entity, e-mails, and our website, specialized blogs. We go into different communities and different social networks to disseminate our activities. The inland activities, are activities that have a more specific audience, which are people that really enjoys walking, likes to watch birds, enjoys cycling and here we have to use more specific communication channels, that are identified and we have to work them, obviously in different markets. For example, the birdwatching, currently we only make a bet on the

English market, we don't do it in the internal market. Soon we will extend to German and Dutch markets, because there is identified that tourists of this type of product are from English, Dutch and German markets, so that's where we work. In the summer, the boat is worth the investment, the internal dissemination, because we have clients for this kind of activity."

For the entrepreneur the market for Eco-tourism is small: "Nature tourist, so far, in my point of view, [Portugal] still lacks of internal market for consuming pure nature. Consuming nature is always a complement to something else."

Regarding the capture of knowledge RB refers that:

"We work in very specialized areas. For example, only birdwatching is a world, and only there we find companies only working in birdwatching. To operate at the highest level I must have a specialized person in birdwatching. And here we have a problem, which is the lack of means, resources, skilled and specialized labor. Because obviously this is an investment and we have to keep people, to attract and secure them, manage to get some attractiveness for them to stay and dedicate themselves to improving this region. Unfortunately we are not yet at this stage, we are walking there, but currently we do it with limitations in resources and have to do it ourselves, two people in winter and rises to four in the summer but without the expertise degree, people that have more generic competencies.

[T]here is always opportunities to promote these synergies that, for example, pass through the organization of joint activities with highly qualified companies. Specific case: the Algarve association of tourism invited a group of journalists [...] and regional companies to lead a three-day activity. We felt that we still lack in the capacity and expertise level that gives response to this type of challenge and so we hired another company that took us more than half the budget so we had no profit, but we knew that we were, besides providing a service of quality and we were up to these people, who are the people that better understand birdwatching in Europe, journalists with a high degree of specialization, people very critical and, because we are launching a product we could not put at risk the opportunity and let the golden eggs chicken die before birth [laughs]. So, at the same time that we insure quality of service and contribute to the correct product first steps and launch the product effectively, we were also helping our guides who were directly involved with, in this case a highly specialized guide, and during three days we learn the terrain, we released activities, we did activities itself, so we were absorbing all that information for our guides. There is no better way than, there are no classes, no universities to pass the information better than these practical lessons on the field.

[A]nother case study, a good opportunity to do an activity with a school that in the discipline of project creation were studying the mortality rate of the clams, we said that was not our expertise area and recommended a teacher who was doing a PhD thesis on exactly this subject. There was the opportunity to come together because we have the boat and, other means and because they have the knowledge, this professor even joined up for two or three trips, and we watched in loco, how the catches and other samples were made, which was the material taken aboard. It was an important analysis to be made and what was important to retain and so, from then, we also gained a better connection with what we see daily in the field, which is to go to the bivalve farm, to get in touch with the farmer, understand the information arising from the practice of this kind of experience that is very important!

The common sense and scientific knowledge... and we try to match it and obviously show a side and the other side of it. An example... there is a hill, a small island between the Armona and Culatra islands that due to its conditions concentrates many of the eggs that come in water currents and therefore there is a large growth, large birth rate... is a natural production area of wedge shell. The bivalve farmers think that area is an area extremely rich, because the lands are fertile lands and they got there and extract sand to take to their own bivalve farms and therefore they end up taking too much from these sands that are extremely important to fix wedge shell and also clams... there is in this case, a totally wrong idea of the bivalve farmers about reality. It is important to listen and know both sides [traditional and scientific knowledge] and obviously we try to show the both versions and is interesting the confrontation of these two visions. Obviously there are visions which are nothing contradictory, even they are very [...] complementary. It is interesting to listen, for example, the names that the fishermen give to birds, which are completely different [from researchers] and it is important to have these two visions and it's quite rewarding for us to have access to these two forms of knowledge."

The entrepreneur comments the importance of E1 participating actively in science communication activities.

"This kind of activities is part of our strategy of being closer to this type of entities [...] as a potential source for our skills improvement, in the organization of activities mainly related to schools, because I believe that the schools area, sooner or later will develop into something much larger than today, eventually even in partnership."

3.2.2. The Moments of Translation

The problematization moment began with RB studying abroad. His inspiration for the idea of E1 services came up in his period in Barcelona:

“[I was confronted] with a project that involved the University of Barcelona, the Polytechnic, the regional government, the Barcelona port, the commercial port, I think that it were five, [...] these five entities, maybe the museum too, the maritime museum; and so [...] it was a project, [...] that involved these large entities, with the common goal of work as well in several areas in training, sailing licensing, educational activities in schools but also in other tourism activities with visits by boat to Barcelona commercial port. It had the great merit of promoting and disseminating the sea activities in its historical, cultural and environmental perspective. There are here a lot of similarities with what I tried to do. Obviously this project is contextualized in a place and time, and therefore I had to adapt it to my reality. Algarve’s weather is different from Catalonia’s, we have a little better [laughs]. Unfortunately, we are some years behind in other aspects and we also not do not have a commercial port..., we have Ria Formosa. So there are not only disadvantages, we also have advantages. And this project was born from this inspiration and so [break moment] adapting to our reality, and our reality in terms of educational offers.”

The consolidation phase of the idea for the company creation was with a training program developed by the young entrepreneurs association and the university knowledge transfer office.

“I think it definitely starts with the training to generate new entrepreneurs which was essential for the initial click of these processes and thus began the journey. Although the idea had come to be [matured] until then, the truth is that the crucial point was exactly then. I remember that the starting point came a bit little sooner, sometimes I even forget that it was very important, that was exactly a conversation with the [knowledge transfer office coordinator] that talked about my need of getting complementary training in [management and business creation]. It was a very interesting training that at the time I thought was the best could have happened to me. Now I realize that it was really interesting, it was nice to have been confronted with these new visions, to “drink” knowledge from some people, but at the current point of view, at the stage and level where I am now and I want, I feel that it was very rudimentary. But it was the level in where I was. In fact, I was one of the persons with a more concrete idea, more defined. From those people in the entrepreneurship training only two moved forward from projects to real companies.”

The intersement moment was parallel with the maturation of the idea was due mainly to the technical monitoring of these two structures, the technology transfer office and the business support to young entrepreneurs association, where the participation in a ideas contest permitted the development of the business plan and the first contacts with suppliers:

“Finishing that stage [...] that was very important and from the point of view of grabbing me and following to interviews, for instance, now I conclude that if had been me, making 100% decisions about with who and when to meet, probably I would not have done anything that happened. The way we went into the field, grabbed the car, went to Alcoutim, to Sagres, meet with council members, meet with catering’s and we started talking about [E1]. Then there was the question of the business plan, pass to the paper all the questions I had thought but there were issues that were not completely listed.”

The translation enabler highlights the constraints to entrepreneurship that he felt in this moment of the process: “[...] lack a bit of everything, isn’t it?! Lack training, lack the structures, lack the incubators, lack incentives to these people, but this is not an area I want to talk about [laughs].”

The beginning of the recognition of the idea as an idea with economic potential marks the begging of the enrolment moment of translation but matches with the emergence of bureaucratic obstacles that almost prevented the company creation.

“The Day of the Sea, [...] the University’s entrepreneurial sea related initiatives presentation, organized the knowledge transfer office, [...] was very important in the public recognition of the idea, in strengthening and maturing it. The development of the business plan, talking with investment banks, personal investment, right?! It also had to be done.

But the activities licensing, which was another chapter that gave a lot here to do... it as basically related with a matter of culture and education, so the question of licensing is not only the fact that there are five entities involved. It is going to the captaincy [...] and the lady there almost hit me because I said I wanted to sign up as a sailor and because that never happened in the past, she starts screaming at me.

So, there are a lot of questions that ignorance, the lack of knowledge and training that although the Simplex [administrative simplification program] was implemented, people remain the same and therefore it is difficult to interpret, is difficult to facilitate, is difficult to engage with ideas different from usual. If it is not a fishing boat, if it is not a taxi, it’s a mess. If it is not a forty horse gasoline engine, what they are used to, if is an eco-friendly electric motor you cannot have it. And so, were all these issues that I was struggling with. I learned to deal with them. In the very recent past I would punch the table and upset me and scream [...] and now I avoid these situations or

put other people talking and negotiating it, because I have small tolerance to this kind of incompetence [...] I realized that connections are important. Unfortunately it is important to know the right persons in the right places. Unfortunately, I stress.”

The administrative authorizations licensing process was very complex and long.

“To license was initially the [Institute for Ports and Maritime Transports], request for using boarding infrastructures; then the captaincy, then the maritime touristic licensing; after there are two entities that provide advice, [the Portuguese Entity of Tourism and the Natural Park], afterwards the navigation inspection, and because were two captaincies involved, came people from other captaincy that represent the Navy to know if the boat respected all the requirements regarding security conditions. And I still required an authorization from the police to use very-lights and so there were five or six entities.

There are very relevant things that now changed, fortunately, legislation changed and this all pass through the [entity of tourism], obviously not the inspection, the request for the use of very-lights neither; but there is no longer the question of going to institute of ports, back from the institute and move back and forward.

Besides these questions, it is also important to underline the way like this process was treated. For example, [...] they could answer me 30 days, if they didn't make the advice it was considered positive. And [...] at the last day, they call me to a meeting in the ports institute asking for a clarification request. In other words, I gathered all the deadlines that they had [...] and figured that it could take three months, or four months, or five months, in the maximum. With all the limit deadlines it still was more than expected. It means that even thinking that I am using all entities, I am using everyday until the end, it took me longer than that. This, for me, is not more than lack of respect and lack of awareness of what is entrepreneurship, what is necessary to achieve the project success, that in certain way are different and that bring added value to the region's offer. These are the people who need increasingly to have someone pointing the finger and saying that they're not performing well their role.”

The complex process of licensing the activity also contrasts with a lack of inspection that makes life easier for companies that do not follow the rules. The rules of the game are not the same for everyone.

“[...] then tell you that there is a need to supervise and there are no means to do that, but currently the inspection longs half an hour. Go to Google and

search for 'birdwatching Algarve' and call to the [institute of tourism] and ask if it is legal or not. In half an hour [it is verified] that person's activity, but there is no interest."

Other obstacle to the consolidation of new companies is the favoritism and lack of understanding of several entities.

"[...] I desire to have more respect and more understanding from the part of some entities, and that is what sometimes discourages me a little, to feel that there are people in certain positions, so little but with so much power... power that messes a lot with the company's internal organization. And so, that is what disappoints me a little, to know that we have an electric motor that in the summer cannot be loaded because the gentleman who manages the marina does not want, just because he does not want."

In fact, he already said to me: 'I do not want, because I do not want!' [laughs]. And so we reach a level in terms of organization and in terms of ethical behavior that it seems that we are not a country that belongs to Europe and that should be on the front line. And sometimes I wonder if it is really necessary, perhaps this guy want some kind of a [...] and I do not understand what it is [...] if I have to pay or if I do not, because sometimes it gives me the feeling that I am here in the middle of such people, in the middle of sharks. [laughs]"

In parallel, the funding difficulties were great. Tools such as micro-credit or credit lines from traditional banks dedicated to innovative projects had less favorable conditions than a personal loan from family due to their antiquity as clients. The last option ended up being the manner to finance E1. R.B. mentioned some of the obstacles he felt by trying to collaborate with other actors in structuring their project. These barriers can be understood as translation problems.

"[...] at this moment it is almost impossible to think in collaboration with the ports institute, municipalities, regional authority, maritime museum that belongs to the Navy. It is almost joke thinking in a consortium with these dinosaurs, with these 'gigantic' entities [laughs]. And this is the big challenge, we find people who have two neurons and makes you want to squeeze their neck, but if we believe and think that it is possible to reach a certain stage [...] It is what we have to think [...] and so there are a series of activities, as I said before, very specialized and with an enormous economic potential and it had to have at least a municipality supporting, the ministry of education supporting... many more support that we don't have, in a perspective to grab this potential and move forward [...] it would have to be a totally different tourism offer [for students], which is restricted to thematic parks and in Easter all going to Ibiza drink a few shots [laughs] and so we're missing a lot. But we have to wait and we know that change takes time to change."

The mobilization of allies turned out to include other entities beyond those originally planned.

“Initially, I thought the solution or part of the solution passed through all these synergies that were being created and are being created and many of them were lost. I thought would be [...] easy, starting the dialogue. Unfortunately, it was not always this way. But we had a series of partners identified, the natural park, the municipalities, the regional board of education, and other associations. We have abandoned some of these partnerships and dialogues and strengthening others. But without a doubt that in the support of the board of education was important. I think that it could have done more and I believe that it will do more, but it is the second year we are taking the first steps and so I think that we still are going on time. But [...] it is extremely relevant because it validated the competencies of our offer.

The Portuguese society for the study of birds, with which we have been carrying out inland activities, we have been developing activities for the members. We already participated by invitation of this society in a workshop about eco-tourism that was extremely important and in last year we were invited to talk about the company [...] this was the main reason that currently we have some advantage in terms of birdwatching services in the field, which was the first project matching nautical activities with birdwatching in continental Portugal.

This also [...] in science, [E1] was also a Researcher’s Night promoter, but apart from the institutional support and validation of some scientific programs, [...] we want to have a closer relationship in training and exchange of experiences in various educational activities. [T]he employers’ association of heritage, historic and cultural method, was very important in the creation and development of two school programs. And I do not want to forget anyone. The natural park has shown more openness, but is very little compared to what could be the relationship with companies that operate within a protected area... but ok. We try to work to promote and enhance these relations. Then in the area of tourism activities [E1] has several synergies with other local companies. We think that it could be much more, is not yet, but we are walking there.”

The entrepreneur assumes that he really feels like a hard working ant.

“I want to say that this was a personal choice but [...] and professional, but it gives me a great joy and I hope continue to be able to have this incentive at work, but sometimes I feel it is a great personal sacrifice and that I am the last one leaving the university, I leave here at 10 p.m., and in the next day

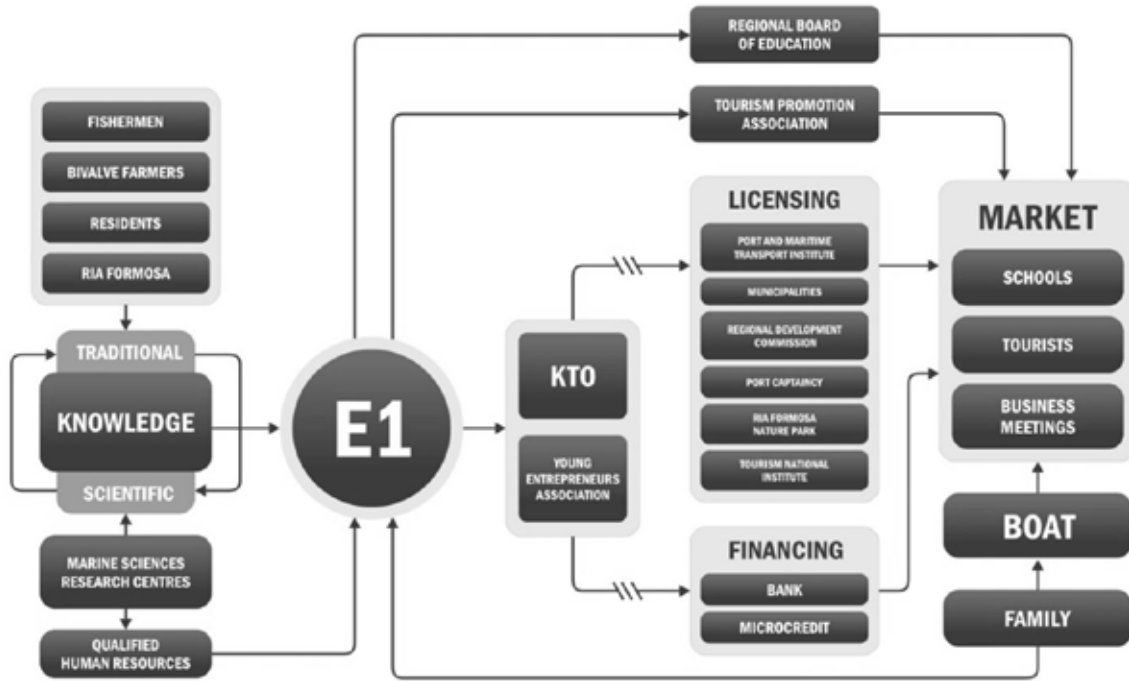
I'm already there in the morning, and sometimes I come there on Saturdays, I come there on Sundays and I do not say that this is paid with money or easy solutions or positive discrimination, just because I work harder."

3.2.3. Stabilization of the Actor-Network: E1 as an Obligatory Passage Point

The stabilization of the actor-network was not easy. But E1 achieved some success as RB was able to transform his idea in a company that is operating in the market and providing innovative services. The actor-network allows enhancing the set of connections that E1 had to reach the market and create a range of relations surrounding the goals for the company's services.

E1 is at the centre of a complex network of actors (Figure 1). To build the company based on the idea of ecotourism in Ria Formosa it was necessary to translate the interests to a broad range of other human and non-human actors. The knowledge on the thematic, key feature of E1 offer had two central sources that have been deployed continuously to the affirmation of the company. The first source of knowledge was the scientific knowledge of a marine science centre from the university, which served as basis for recruitment of qualified human resources but also to structure some of the company's service based in science through cooperation. In parallel, it was necessary to capture the traditional knowledge about Ria Formosa and to ensure the acceptance of a range of actors that intervened in this context. E1 was from the beginning proactive in seeking to adapt the activities to the fishermen, residents, bivalve farmers and also to the Ria itself. The systematic cooperation with all these actors not directly related to the market allowed the stabilization accessing to knowledge.

Figure 1: Actor-Network Stabilization



Source: Own Elaboration

To reach the market E1 needed to grant authorization for the activity, fund the activity, which in a very significant part consisted in a boat acquisition, and to convince the potential customers that the service offered by E1 might be of interest. As the extracts of R.B interview shown, the company benefited from two intermediaries, the knowledge transfer office and the young entrepreneurs association, who have accompanied in these processes with the creation of boundary objects. Even with this guidance, E1 had a lot of translation problems which enable a smooth licensing process. Licensing was, in the entrepreneur perspective, a long, painful and very unclear process. Simultaneously the demand for funding was being unsuccessful. The venture capital and micro-credit financial instruments shown to be inadequate to this new company situation that had to opt to a traditional personal loan for the investment needed. It was the family support that turned out to be central in the boat acquisition, central actor in the product offered by E1. The regional board of education and the association of tourism promotion were key actors to reach the market, in particular, specific publics such as schools and eco-tourists. Today E1 is considered an obligatory passage point in eco-tourism services providing in the Algarve region.

4. CONCLUSIONS

Academic entrepreneurship assumes, currently, a centrality as an instrument of regional development. The university and scientific knowledge role is reinforced through this channel linked with society allowing the generation of innovations, new products, processes and even markets. Through the analysis performed to different perspectives that focus the entrepreneurship phenomenon is possible to state that this concept emerged, in last decades, as a central mechanism to employment creation and competitiveness in territories. In the current context, seems clear that entrepreneurship can play a crucial role in economic growth. The case study of E1, using ANT that proved to be a useful

methodological approach, allows to underline the huge personal and financial investment that is made by an entrepreneur when compared with an employee with the same profile in the Portuguese context. An academic entrepreneur is a translation enabler that needs to engage a diversity of other actors for his own interest but is in parallel a hard working ant, that works more hours and gains less revenue in the early stage of the company's creation in the expectancy that the investment worth's in the long run.

The research demonstrates the role that the creating of networks play in the consolidation of a spin-off and it is also suggestive that social capital is critical for success. The search for funding is demonstrative of the inadequacy of available tools for the spin-offs companies in the Algarve. More financial tools and more diversified should be made available to the innovative ideas with economic feasibility. Personal loans from family became the most relevant funding source. The relevance of intermediation entities, creating specific boundary objects, like in this case the ideas contest and the business plan, are crucial for the start of the company, to guide the transformation of the idea into a business. Despite all the difficulties and the efforts of a real hard working ant, the entrepreneur summarizes his interest in creating the company: "*To own my own destiny and be able to do professionally what I like most!*"

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