

# SPATIAL AND ORGANIZATIONAL DYNAMICS

## DISCUSSION PAPERS

**Collaborative and Integrative Processes in Management**

Nº II

JUNE, 2012

Collaborative Research as a Source of Innovation  
**Pesquisa Colaborativa como Fonte de Inovação**  
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New Alternatives in a Plural Society: Care to dependents and foreign care  
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KIBS in Peripheral Regions: Major outlines  
**KIBS nas Regiões Periféricas: Considerações gerais**  
Teresa de Noronha

# **DISCUSSION PAPERS N° 11: SPATIAL AND ORGANIZATIONAL DYNAMICS**

**Collaborative and Integrative Processes in Management**

**Texts by:**

**Amiram Porath**

**Esperanza Begoña Garcia**

**João Romão**

**João Guerreiro**

**Paulo M. M. Rodrigues**

**Teresa de Noronha**

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**8005-139, Faro**

**[cieo@ualg.pt](mailto:cieo@ualg.pt)**

**[www.cieo.ualg.pt](http://www.cieo.ualg.pt)**

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## AUTHORS PRESENTATION

**Amiram Porath** (amirampster@gmail.com)

Dr. Porath has been involved in Entrepreneurship, innovation and business development for the past 18 years. Following his training in Chemical Engineering, he graduated from the Tefen College for entrepreneurs and started an MBA while managing a start-up company in a technology incubator.

Following that activity, Dr. Porath went into management of start-up companies providing services and COO, as well as CEO for the companies. In 2000 he founded the EU office at Tel Aviv University and led the research activities towards the EU.

In the same year he added to the office portfolio of services that were also local (national) projects with the industry, adding Technology Transfer activities and IPR specialties.

After more than 8 years at Tel Aviv and completing his PhD in Business strategy, dealing with forming mechanisms of R&D consortia, Dr. Porath left to form his independent business development consultancy.

During his work, Dr. Porath developed practical expertise in the fields mentioned above and also served as a full member in the CREST Expert Group to “Promote the reform of public research centres and universities; in particular, to promote transfer of knowledge to society and industry” (2005-2006). In addition, he was an external policy expert to the High Level Expert Group on Reporting of Intellectual Capital for Increased Investment in Research and Development. His bi-national efforts and activities with Italy have earned him, in 2008, the title “Cavaliere” in the order of OSSI from the Republic of Italy.

**Esperanza Begoña García Navarro** (bego.gn@gmail.com)

Professor at Nursing Department, Nursing Faculty, University of Huelva. Master’s degree in Science in Nursing, University of Huelva. Master’s degree in Social Studies and Social Intervention. Coordinator researcher of the research group: Management of Cultural Diversity and Health. Coordinator researcher of the research group: Patients’ reaction at end of life. Researcher of the Group PAIDI: ESEIS, [www.eseis.es](http://www.eseis.es).

**João Pinto Guerreiro** (jguerreiro@ualg.pt)

Rector of the University of Algarve since 2006, after being Pro-Rector for Technology Transfer (2004-2005). He has been a Full Professor at this University since 1994, and his research is related to regional economics, economics of Innovation and regional development. João Guerreiro has a Licenciatura in Geography (1983), an MSc in Integrated Planning for Rural Development and Environmental Management (1986) by the International Centre for Advanced Mediterranean Agronomic Studies (Paris) and a PhD in Economics Science (1994) by the University of Algarve. He has been the President of the Regional Authority of Algarve (1996-2003).

**João Romão** (oficinaj@gmail.com)

Researcher at CIEO (University of Algarve, Portugal) and the Spatial Economics Department of Vrije Universiteit (Amsterdam, Netherlands). He graduated in Economics (1991) and completed a Master's in Economics and Management of Science and Technology (1995) at the Instituto Superior de Economia e Gestão (Lisbon, Portugal) before receiving a PhD in Tourism at the Faculty of Economics of the University of Algarve. João has been a Visiting Researcher at Yale University (USA), Vrije Universiteit (Netherlands) and Hokkaido University (Japan), working on tourism studies, regional analysis, urban planning and sustainability. He has worked as a consultant on urban planning and local and regional development, as well as a journalist and documentary director and producer.

**Paulo M. M. Rodrigues** (prodrig@ualg.pt)

Senior researcher in the field of structural analysis for the Economic Research Department of Banco de Portugal. He has published a number of articles in refereed journals including Journal of Econometrics, Econometric Theory, Econometrics Reviews and Journal of Time Series Analysis. He received his Licenciatura from the Universidade do Algarve and his Masters and Ph.D. from the University of Manchester, UK.

**Teresa de Noronha** (mtvaz@ualg.pt)

PhD in Economics, she is Professor of Economics of Innovation at the University of Algarve, director of the PhD program in Innovation and Land Use Management and president of the Research Centre on Spatial and Organizational Dynamics ([www.cieo.ualg.pt](http://www.cieo.ualg.pt)), since 2007. In the last decade, she was an invited professor, lecturing at the University of Paris I - Sorbonne, University of Gent and University of Bologna. At present, she is a visiting scholar and affiliated member of the Martin Prosperity Institute, University of Toronto. During her research activities, she coordinated several European, national and locally founded projects, co-edited ten international books about innovation and regional/rural development and published an extensive amount of scientific material related to regional economics, public policies and the use of instruments to implement innovation in lagging areas. Among her most significant works is the three-book series: *The New European Rurality*, *Traditional Food Production and Rural Sustainable Development*, and *Towns in a Rural World* (in print), all published by Ashgate, Human Geography Series, London.

# **COLLABORATIVE RESEARCH AS A SOURCE OF INNOVATION**

## **PESQUISA COLABORATIVA COMO FONTE DE INOVAÇÃO**

*Amiram Porath*

### **ABSTRACT**

Collaborative Research (CR) is usually regarded as a way to overcome several R&D barriers: the limitations of specific R&D projects resulting from lack of finance required for research infrastructure investment; the lack of expertise in industry (while it exists in academic institutes); and successful knowledge transfer.

CR can be regarded as a strategic Open Innovation tool. In a book published in 2010 (Porath, 2010) I discussed CR on various aspects, analyzing it from the academic point of view and in the later part of the book on the practical aspects of participants and policy makers.

Two recent books have been published, in which I have one chapter each. In the first one I presented a model (Porath, 2012a); and in the second a case study (Porath 2012b) regarding Open Innovation. These chapters have not dealt with CR as Open Innovation but rather presented another tool that has made Open Innovation a strategy for companies with little other choice.

In this chapter I will combine the three sources into a more comprehensive picture.

Keywords: Collaborative Research; Open Innovation; Knowledge Management;

### **RESUMO**

A Investigação Colaborativa (IC) é normalmente considerada como um modo de superar várias barreiras de investigação e desenvolvimento (I&D). São inúmeras as limitações de projetos específicos de I&D: falta de financiamento necessário para o investimento em infraestrutura, falta da perícia na indústria e múltiplas dificuldades na transferência de conhecimento bem-sucedido.

A IC pode ser considerada como uma ferramenta estratégica de Inovação Aberta. Neste artigo analisada do ponto de vista académico e sobre os seus aspetos práticos dos participantes e governantes.

Palavras-chave: Pesquisa Colaborativa; Inovação; Gestão do Conhecimento

JEL Classification: O32, L14, L17

## **1. CR BACKGROUND**

As mentioned in the book and in other sources (Porath, 2010), CR is becoming more and more popular. The drivers for that rise in popularity are both economic and psychological. The economic drivers are simple and well known. The cost of research has risen since the second half of the 20th century, both regarding the capital required for advanced research and the investment in the human resources to operate that research equipment in a useful way. The national investment in research infrastructure is normally concentrated in centers dedicated for applied research under a specific topic (academic or industrial) as a result of the economic need, and the training required. The psychological aspect regards the public investment in academic research as a source for public benefit – knowledge transfer for the benefit of society.

In the past, the view that knowledge had a value by itself made this public investment worthy for the public benefit. However, today, Academic Research purely for the creation of knowledge, rather than for any specific or general practical application, is considered less acceptable as a public investment. This situation can be resolved in two ways: one is to allow donors and private sources to finance it – not possible as an overall solution, due to the size of financial demand required for the entire basic research performed, either on national or international levels in most countries; or to harness it for practical use directly or through knowledge transfer. It is possible, of course, to try and change that entire point of view regarding the value or importance of pure knowledge creation, but that is another discussion.

In our case, CR is an effective method for harnessing basic research, the public investment and the human resources for the public benefit. The book “Collaborative Research in management – inside out” (Porath, 2010) deals with the theory behind CR including the Economic and Organization theories, legal aspects (Laws, bylaws, legal entities, Intellectual Property rights etc.), and the roles played by the different players (Academy, Industry, Government). The book deals with the difficulties in overcoming the cultural abyss between the Academic culture and the Industrial organizational culture, and the benefits that can be derived from cooperation. It also deals with practical questions such as: how to participate – initiate, form and join CR projects or programs.

The structure of the book is as follows:

First Part – Introducing the topic of CR

- Models and benefits of CR
- The partners and their roles

Second part – Practical Advice (answering, among others, these questions:

- How to develop a successful program?
- How to develop a successful consortium?
- What to do when left out?

The book begins with demonstrating that Generic Research by itself is beneficial for the practicing firms. The theoretical analysis starts with the development of economic models. The analysis begins with simple models in the mid-1980s to more complex ones in the first decade of the 2000s. The analysis progresses from simple duopoles with symmetric contribution of the partners to complex and asymmetric cooperation with multiple partners. It also deals with different influencing parameters such as spill-over, rate of personnel change, and more. The analysis continues with Organizational Theory aspects such as organization routines and their fit for the organizations’ goals, the influence organizational culture has on routines, and more. Following that, the analysis moves to examine the legal issues with



a focus on intellectual Property rights and requirements. It leads to a review of multi-disciplinary model analysis ending with the CR model, as developed regarding academic-industry cooperation under a government structured program.

The following chapters deal with the different models of CR, the role of the partners in the CR as viewed by the partners and as each one sees the others, and the ending of the first part of the book with an analysis of two views for the CR: the sequential view and the parallel view.

The second part of the book, as mentioned above, deals with practical advice on how to develop a CR program (presenting several country examples). That is followed by advice for policy makers, then, in turn, for consortium initiators and participants. One specific question dealt with is what to do when left out of a consortium. The book demonstrates that the usefulness of CR as a source of knowledge is unquestionable, and it goes on to describe for practitioners the ways to benefit from it.

## **2. OPEN INNOVATION BACKGROUND – THE TWO CHAPTERS**

The topic of Open Innovation is very important, especially for SMEs. This specific group of companies normally faces more difficulties in resource allocation and, therefore, finds it more difficult to allocate resources for innovation. The possibility of obtaining innovation from external sources is a great opportunity for such firms.

Therefore, for SMEs, mechanisms that offer the ability to acquire innovation from external sources on regular or pre-defined routes are very important in order to obtain innovation and retain the resulting commercial or economic market advantage. The offering of such mechanisms and, even more so, of such sponsored (at least to some degree) mechanisms should be considered a major assistance from the sponsoring entity (government).

In 2012, two books were released (Porath, 2012a; Porath, 2012b) dealing with examples of such mechanisms. The first (Porath, 2012a) dealt with the models for creating such mechanisms, the logic and legal framework, and the economic model behind them. The second book (Porath, 2012b) dealt with a specific case study of such a mechanism, showing the specific advantages derived from it.

### **The need**

SMEs have limited resources and need to be careful regarding their resource allocation. The resources regarding innovation can be divided into infrastructure and human resources, with a sub-category being management resources. Apart from the technical resources related to the sector in which the SME is active, other fields, close or remote, may require technical expertise for which the SME would find difficulty in allocating resources. In any case, the identification of the specific fields and the relevant resources, followed by their management, would require management resources and, sometimes, additional expertise that the SME may find difficult to allocate.

It can therefore be understood that, in order to help SMEs in cases that they either do not have the R&D capabilities or the management ability to manage them or in a more general case where they lack the capability and resources to manage innovation, this is supplied by external sources. The need is, therefore, to identify and manage innovation on behalf of the SMEs and in a regular, routine way that will allow the SME to count on the process and integrate it into its activity. Such a full model is described in great detail by Porath (2012a).

### **The basics for an operating model**

The model described in detail by Porath (2012a) presents several basic features that are understood to be necessary for success. Some are required for the justification of the support given to the firms (economically) such as:

- Support is given to a group of firms and not a single firm as it is given in the form of a grant (not to be repaid);
- Any firm may join as long as it follows the by-laws and shares the knowledge among the group members, but keeps it confidential when others are concerned;
- The support given is not designated for the development of a specific product or service, but is intended to lead towards such development.

Others are intended to make sure the firms are committed to the process and that they use the mechanism for their benefit:

- Participation in the cost is required from the firms – as a show of determination and also to make sure the topics addressed are of importance to the firms;
- The support includes also administrative support and not just economics, in order to compensate for the lack of managerial resources;
- The additional skills required are hired from a source external to the firms (e.g. academy);
- The activity is time limited – a project or program. In order to assure that the firms do not become dependent upon it.

In summary, the model presented is of a program that supports a group of SMEs coming together to identify and acquire innovation from external sources aided by external expertise. The program gives administrative and financial support but requires the firms to participate in the costs.

The results are shared by the participating firms but are kept confidential, at least in part, from the rest of the firms in the sector and the world.

It is important to note that the model presented (Porath, 2012a; 2012b) is not one of R&D finance but rather of acquiring existing technologies, identifying them, selecting the appropriate ones and adopting them.

The specific model presented is characteristic of most other Israeli innovation program as one in which the sector and topics are selected Bottom-Up. That is to say that the SMEs select the issues to be worked upon rather than the government agency. The government influence is limited to selecting among the proposals the one that seems most promising.

### **Not alone**

The fact that the program supports a group of firms, not just a single one, is important on several planes. The justification of granting commercial firms financial support without a public tender is, at best, problematic. However, support granted to a sector or part of a sector for pre-competitive innovation is more easily accepted.

That understanding dictates the rules of joining the projects as well as the financial rules of participation, the grant, the participation of the firms regarding the costs and more.

Another aspect of the group is, of course, the utilization of the resulting innovation. As the problems/issues are defined by the participating group and are paid for at least partly by the group members, the knowledge and its utilization are dedicated to them. However, one must bear in mind that, in most cases, the knowledge is not new or fully proprietary. It is acquired from external sources; therefore, there are other ways to obtain it. The proprietary parts are those relevant to selection criteria and identification of the knowledge, as well as adoption preferences where they are defined at the project level. From that aspect it is worth mentioning that the selection of the topics via a Bottom-Up method has two important benefits. One is to make sure that the selection of the topics is one that really is of interest

for the firms, and that they are not enrolling due to one important issue and paying as a “tax” by participating in the others. The method of selection ensures that the firms present only issues that are critical for them. That fine tuning of the selection could not be done by the government on their behalf. The second benefit is that the firms are therefore more committed to the topics, and there should be (Porath, 2012b) a greater chance of adopting the results.

### **3. COMBINED PICTURE**

The sections above described two different scenes: one regarding CR in which new knowledge was developed, either pure and basic knowledge or knowledge adapted to the needs of the industries; the second was that of Open Innovation where old or known knowledge was characterized, identified, acquired and adopted by firms without the creation of new knowledge.

It is important to recall that there could also be a combination of the two. One such combination does not present the academy as a partner in the development of new knowledge, but rather as a facilitator on behalf of the industry in characterizing, identifying and acquiring knowledge that is already developed, perhaps with some modification, but without the involvement of the firms as developers.

The CR is better adapted, understandably, for firms with R&D capabilities. It is intended for the creation of new knowledge. The Open Innovation (OI) model described is best adapted for firms without R&D capabilities or with limited capabilities who are seeking innovation, even based on existing knowledge. The OI model can be seen as complementing the CR for a full Open Innovation comprehensive model. This allows the development of new knowledge with external assistance and external R&D sources cooperating with internal R&D capabilities, combined with external innovation sources for firms without R&D capabilities.

The ability to combine the two mechanisms using the same players, but answering different needs, has the potential to increase economic development beyond the capability of each single mechanism. It is important to note that the industry target participants are different, and the role of the academic partners, if not their identity, also differs between the two mechanisms.

In a developed economy where the population of firms is not entirely of intensive R&D sectors or firms, it is important to allow firms with low R&D activity, especially resource constrained SMEs, access to innovation sources. The OI will allow that, while the CR will support the needs of the Intensive R&D firms. However, it is important to note that there are also possibilities for firms to pass from one to the other depending on their specific needs.

### **4. A SMALL NOTE FOR PORTUGAL AND THE EU**

The OI chapters (Porath, 2012a; 2012b) have described models applied in Israel, and the CR book, although dedicating a chapter to India, was largely based on research performed in Israel. The Israeli economy, as demonstrated in the book (Porath, 2010), is clearly weighted in favor of R&D intensive sectors with little attention given, until recent years, to traditional industries. That lack of attention resulted in fewer tools/programs designed for the needs of such sectors compared to the tools designed to support different stages and needs for R&D intensive companies.

In these circumstances it is easy to demonstrate the need for support tools designed for non R&D intensive firms, and the OI chapters do just that. However, their potential for countries or regions with large concentrations of such low R&D sectors should not be overlooked.

The Lisbon Agenda, aiming (EU, 2003) to make Europe a “Knowledge Based Society”, advanced the allocation and development of R&D support tools, the most famous being the EU Framework Programs (FP) for Research (now number 7 in full operation) allocating billion of Euros in research grants for industry and research organizations. The Lisbon Agenda goals were termed in R&D language, measuring the R&D investment and its sources.

However, some of the EU member states have large sectors with little or no R&D. While the FP and other programs may try to encourage the firms in these sectors, especially SMEs, to be more R&D active, compared with the funds allocated for R&D, little has gone into OI with no R&D.

It is my belief that investing in OI for traditional sectors and low R&D sectors in order to promote their innovation, and thus competitiveness, without the extra burden of developing an R&D activity in their firms, could create a direct and measurable benefit to the sectors and their firms. This effort can complement the R&D encouragement effort. The OI can help these sectors catch up before they try to overtake the others in R&D. The big step and the big investment required for becoming a leader in a technology due to R&D both in terms of infrastructure (human as well as technological) and in terms of management training and routines development could create a barrier that the funds in the R&D programs could not surmount. Such a case would leave these firms out of the competition and weaken them.

The development of an OI program could help these firms establish some competitive advantage, at least locally, and allow them to create the basis to be able to benefit from R&D activity, especially from the CR. Strangely enough, as can be seen from the case study (Porath, 2012b), the OI mechanism requires a smaller investment in most cases compared to the CR, and it gives faster results. The quicker impact is derived in many cases from the lack of further development required for application into production or products, allowing the SMEs to benefit quickly from the move. It also helps reduce the reluctance of the management of the SMEs to participate in national or international support programs, further easing the move towards R&D.

## **5. SUMMARY**

In this short presentation, a book and two chapters have been described, presenting two models: one of Collaborative Research regarding Generic R&D and the other of an Open Innovation mechanism without R&D. Additionally, a case study illustrating the OI mechanism was described.

The benefits of both mechanisms should be clear regarding the economic development of the participants and the regions in which they are active. This presentation tried to show that the combined operation of both mechanisms would be most beneficial for developed and wholesome economies containing R&D intensive sectors as well as traditional or less R&D intensive sectors.

It is up to policy makers to make the specific adaptations required for the regions under their responsibility, addressing the cultural and legal aspects, among others. For the countries that have found the Lisbon Agenda difficult to achieve, it will allow them to benefit from economic investment in traditional sectors that are important to them socially, as well as historically, and which have been pushed aside from the focus of economic attention under the directives of the Lisbon Agenda.

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# NEW ALTERNATIVES IN A PLURAL SOCIETY: CARE TO DEPENDENTS AND FOREIGN CARE

## NOVAS ALTERNATIVAS NUMA SOCIEDADE PLURAL: O CUIDADO DE DEPENDENTES E CUIDADOS EXTERNOS

Esperanza Begoña García Navarro

### ABSTRACT

Taking care of a dependent person means to supply those needs that this person cannot satisfy by himself due to his lack of independence or autonomy (Henderson). Care is transmitted from one generation to another as a social practice and as a cultural heritage. It is taught through culture and social practices, and it is learnt through personal experience. At the same time, care does not happen in an empty context but in the context of systems and health and social structures, among other things, that finish its shape. When caring, the culture and social practices of a carer from one country (country of origin) are different in comparison with those of the country of destination. The concept of transcultural care of Leininger echoes the cultural diversity that this difference or opposition involves, and recommends incorporating it in the professional practice, developing care practice which she defines as *culturally competent*.

Other theoreticians in the field of nursing incorporate additional dimensions such as prejudice, developing approaches in which it is argued that care should be accompanied by an *intercultural sensitivity* (Campinha-Bacote).

This article presents a study on female migrant carers and their care strategies in key areas in the province of Huelva and the city itself, southwest of Spain, where they provide elderly care in different areas of expertise: specialised care in hospitals and care for the family unit at home. After an initial description of the demographic profile of the carers interviewed in our study area, our objective is to know the strategies they develop when caring for people from different backgrounds and how they are integrated into the social, cultural and institutional context of taking care to dependents of the host society.

Keywords: Transcultural Care; Social Practices; Female Migrant; Dependent Person

### RESUMO

Cuidar duma pessoa dependente significa que as necessidades de essa pessoa não podem ser satisfeitas devido à sua falta de independência ou autonomia (Henderson). Este tipo de cuidado passa de geração em geração como uma prática social e como uma herança cultural, sendo ensinados através da cultura, práticas sociais e através da experiência pessoal. Ao mesmo tempo, os cuidados não são produzidos no vácuo, tendo lugar no contexto de sistemas e de saúde e das estruturas sociais, entre outros, que os finais de estabelecer. Quando um cuidador é de outro país são em contraposição as culturas e práticas sociais do origem e de destino no momento de cuidar. O conceito de cuidado transcultural de Leininger reflete a diversidade cultural que é esta contraposição e recomenda incorporar na prática profissional o desenvolvimento de cuidados que esta define como culturalmente competentes. Outras teorias da área de enfermagem incorporam dimensões adicionais com o prejuízo de

desenvolvimento de aproximações em que se defende que o cuidado deve ser acompanhado de uma sensibilidade intercultural (Campinha-Bacote).

Neste artigo será apresentado um estudo sobre as cuidadoras imigrantes e o estudo sobre as suas estratégias de cuidados em áreas fundamentais e na província de Huelva, Sudoeste de Espanha, onde os cuidados são prestados a idosos em diferentes áreas de especialização: atenção especializada em hospitais e atenção da unidade familiar em sua casa. Depois de uma descrição inicial do perfil sociodemográfico das cuidadoras entrevistadas nesta área de estudo, nosso objetivo é conhecer as estratégias que desenvolveram no momento de cuidar de pessoas de diferentes origens e como estas são integradas no contexto social, cultural e institucional dos cuidados a dependentes na sociedade de acolhimento.

Palavras-chave: Cuidado Transcultural; Práticas Sociais; Migrante Feminino; Pessoa Dependente

JEL Classification: I 11

## 1. INTRODUCTION

In recent years, major social changes occurred in Spain that affect the demands from families to health professionals, in particular, and the health system, in general.

The first notable change is the ageing of the population; we can find homes where there is an abundance of the chronically sick, with self-care difficulty and non-external care. Any dislocation or management of the relationship with the health care system must be done with the help of family members or professionals. People at a certain age who have lost the ability of having a relationship with their doctors and the nurses are neither spontaneous nor direct and need the help of their families to accompany them and manage the relationship with the health care system and implement or monitor their treatments (1).

Faced with this situation, the offer of institutional care is very poor (day, home care, residential centres), and the private offering is unaffordable for the majority of retirees and even their child. Between the year 2000 and the year 2050, the number of people older than 80 years in Europe will triple. Geriatric demands will grow even more than triple because we will have an increase of expectations and demands of this age (1) group; therefore, the only way to deal with the problem is the figure of family or informal caregiver, taking care into the family and, in another way, the extension to the (2) social services network.

Another social change that has occurred recently is the weakening of the source of informal support, mainly due to women that are being incorporated more and more into the professional world, which radically modify its traditional role of caregivers of patients or health care providers. According to surveys by the Ministry of Health, there is a paradox; informal or family carers dedicate less time to take care of themselves, especially when they combine the role of housewives and of active workers. The new social role of women affects the Care System of their relatives. The decrease of women that provide family care increases the demand of people dedicated to the care of patients outside of the family. These people are also the main caregivers of our patients. The main difference is that the link between them is not family ties, but the consequence of an economic exchange and provision of services, which, in some forums, is called mercenary care.

Another change that has occurred in today's society is because of prosperity and facilities in the displacement and flow of populations of different countries, which is attracting large

numbers of foreigners not integrated in our society in Spain. The arrival of people from other cultures represents a major social change; but, above all, it implies a cultural impact, mainly for them, because the non-native population is a minority. This inflow of foreigners is experiencing a social change given by the need to acquire jobs that decrease their basic transfer costs, so that immigrant population is subject to some labour niches of job insecurity, low wages and endless hours. They formerly worked in the agricultural and construction sector; this group largely consisted of men, as well as some women also in agricultural, but women were mainly in the domestic sector attending dependent elderly people at home and hospitals. They are emerging as occupational niches that local society rejects, and they are directly absorbed by the immigrant population.

All of these social changes have evolved in the development of a new figure: the new agent of health care, which had not been studied or subjected to analysis until now, and these being the foreign caregivers that belong to different cultures, values and perceptions of the country from which they come, and they developed a type of cross-cultural care in our patients. Throughout this study, we will call them **Cross-Cultural Carers**. Their work is to assist our elderly, satisfying their basic needs and also engaging in a work of accompaniment, therefore replacing the usual family care or informal care system. This is a new trend, and although there are various studies that describe the informal care provided by members of the family (3), (4), (5), those who describe the support provided by paid carers outside the family nucleus resulting in a migratory processes have not been found.

The living conditions of these new agents of health are very different to family caregivers and the other local, paid caregivers, not only because of the attempt of adaptation to the new society that they are living in but also because of their own experience of the migration process, which involves economic, psychological, physical, social and spiritual difficulties. Culture shock is very strong, and the difficulties to adapt to a new, cultural context and integration in the new model of society become very hard (6). In addition, we cannot forget their pain from whatever is left and lost in their countries.

These factors provide caregivers taking these jobs an opportunity for learning and integration into a house on his new homeland; despite the precarious conditions of the work, it does not affect the quality of the care provided, even with a big cultural shock given by the interaction of two people with different values and perceptions of health and life styles.

Care involves understanding and, therefore, necessarily includes a process of empathy, identification of needs and assumption of knowledge.

Care and health have similarities and differences according to the cultural context in which they are located; the care provided by cross-cultural carers will have features consistent with their own culture, which does not have to be similar to the needs of patients who belong to the culture of the host country. It is necessary to know their knowledge, attitudes, beliefs and values and adapt to a training plan appropriate to each person according to the situation in which they are, particularly concerning knowledge on health/disease, expectations, attitudes, etc. that must be known about the care of dependent persons. We will conduct this study from the point of view of a nurse with the complete care unit consisting of patient and primary caregiver.

In this case, a cross-cultural caregiver exercises the cares with the maximum dedication, and we must ensure that the cares that they provided to our patients are culturally appropriate to the needs of the patient and the standards of quality required. The best way to plan our intervention and address the care unit, and detect their needs, would be using a methodology, which, in this case, is the methodology for cross-cultural care.

With this article we present the results obtained after a completed research project whose objectives were:



- To know the strategies developed by cross-cultural carers to develop their daily work from the vision obtained by their own culture.
- Define the profile of the foreign carers who provide care to patients of the Huelva district.

To address the study on the reality of care to dependent, people who provide foreign women, three types of methodological approaches that respond to the different objectives have been used.

Firstly, a methodology focused on the analysis of secondary sources, the exploration of data from other studies and the existing statistics on immigrant carers were used. Among these sources a prominent book is included, *Cuidado a la dependencia e inmigración*, from the Ministry of Labour and Social Affairs and the various statistical reports of the IMSERSO, the collection of social studies No. 6 of the Fundación la Caixa called *Vejez, Dependencia y Cuidados de larga duración*.

Throughout the research, we have taken various approaches to the reality and comparison between the different nationalities of carers.

The different sources appear in the bibliography of this memory section.

Secondly, an analysis of the situation of dependence existing in rural areas was performed, and interviews were conducted in the field, that provided a better understanding of the current panorama, reviewing both demographic issues, including responses raised by this phenomenon, i.e. the way in which protection of the State is organized.

Thirdly, a qualitative methodology centred on obtaining primary data through the in depth interview to a small sample of 10 cases of carers linked to the private sector, with another 10 applied to carers linked to a company (all of them foreign), where there was a primary focus on aspects linked to their immigration profile, employment, and family. In addition to this main objective, we also attempted to make women's work visible, as they are the informal carers, who are little known and little valued socially, concerning themselves.

Interviews were in their place of work, performed in the homes where they live and provide care for those in the private sector, and in the hospitals of the city, with the provided carers belonging to a private company.

This change elicited in fieldwork lies in the realization itself, since once immersed in it, we perceive the monopoly of the specialized care in a sole company which provided the "private care" or the informal paid care. It was decided to include this novelty in our research and change the distribution of the sample raised in principle - frequent changes in qualitative methodology given its great flexibility - to make the analysis of the situation lead to more interesting results, with two perspectives differentiated within the foreign, informal care: private self-employed and self-employed. This labour distinction was the only existing one between the two resulting samples, since the rest of the features that complete the profile of the samples remained the same (nationality, age, gender); therefore, we decided to interview 10 carers belonging to the company as urban in the specialty care and another 10 belonging to rural areas (Coast and County) to carers residing in homes.

## 2. RESULTS

### Real Situation. Formal and Informal Care for the Unit

There are several phenomena that show the real situation of dependence on our country and, more specifically, in the province that is the subject of study, Huelva.

The first of these is the transformation of the families of our city, as women join the labour market and the birth rate decreases. A difficulty added to this is the economical availability of households and the increase of costs from the care of another person and

more if the pension does not cover even half of the costs. Regardless, the situation of the need for more dependent care would have much to do with the existence of what has come to be called “proximity services” (service help at home, Tele assistance and day centres). The low stocks of this type of service, enabling formal caregivers to not have to cope with caring for the dependent during all hours of the day, frequently generates the need for someone who allows small spaces of respite to informal caregivers, but that, as we indicated above, necessarily causes a family economic expense. The arrival of immigrants with possibilities of caring for older dependents and the possibility of living at the home of the dependent, may be prompting a new situation which is hiding, in part, the limitation of services of proximity. (IMSERSO)

### **Real situation. First core study. Aljaraque. Punta Umbria. Characteristics for immigration as a young phenomenon**

The basic area of health of Aljaraque, which is only as far as 3 or 4 kilometers from the urban area of the city of Huelva, consists of 4 towns.

In three of them, there is a health centre or doctor's office. However, there is no retirement home. The population is very mixed, particularly at Corrales, the closest to the city of Huelva. Until about 6 years ago, the majority of them were of a considerable age, as younger people had gone to the Huelva capital or other places for work reasons. But in recent years, there has been a massive construction of new homes in the area, and the population has become younger and more numerous.

Apart from this, the characteristics of the population in this area are consistent with the general trend of the current population, both in demographic changes and the health partner needs. There is a lower birth rate, as well as an increased life expectancy, which together with the addition of women to work, who were formerly the carer par excellence, makes for more people living alone than before, especially women over the age of 80.

In these days, we can find more technology at home; therefore, the assistance of patients who are restrained in bed requires closer and more continuous care due to the techniques to be applied and the devices used.

In any case, the number of carer's immigrants finally found was fewer than expected, perhaps due to the coincidence in time with the beginning of the benefits of home care derived from the **Law of Dependency**. It has gone from providing one or two hours of care a day to spending a minimum of three hours per day. In addition, we have the economic benefits that can even exceed 400-500 euros; it has caused some family members to stop working because they could not earn much more than that, becoming informal carers of their families.

Discussing demographics more particularly, we have in the year 2007, 16368 inhabitants, of whom 1411 are older than 65.

- Users who have been considered dependents after the nurse assessment: 169.
- Considered fragile or users at risk of dependence after the nurse assessment: 259. Which are followed: 78.
- Immobilized at home in follow-up: 172.
- New users valued and a Care Plan established in their homes: 47.
- New carers valued and a Care Plan established at their homes: 34.
- Visits to patients and carers at home: 2167.
- Localized carers: 108.

On the immigrant population enumerated, we can say that, in 2006, there were 1257 immigrants registered, raising the number of foreigners in 2007 to 436.

In summary, it can be said that City Council Social Services worked quite well; there was a proper active recruitment of home help service for dependent patients if it was suitable and available resources allowed it.

When the family prefers that they have full time care help at home, they will have to hire on their own. Foreign women are preferred, specifically of South American nationality; they are chosen by family members “for language reasons and also because of their temperament”.

**Real Situation. Second Core Study. Almonte area. Distinguished by a consolidated immigration where there are second generations of immigrants**

It is known that the migration process in Andalusia has experienced deep changes in a short period of time. The transformations have been even more significant at the provincial, or even local, level.

Focussing on the local level of the District of Almonte, we must take into account the following factors:

- Seasonality of agricultural crops.
- Source recruitment policies.
- Immigration law.
- Enlargement of the EEC.

These factors were pointed out in the migratory flow in Almonte, where the migration process began following the establishment of intensive cultivation of Strawberry, with an obvious character of temporality and where, after suffering the problems of irregular situations and numerous obstacles that entailed, active policies of recruitment in origin were adopted, at first mainly in countries such as Romania and Poland. Despite this temporality, the stabilization of a population with certain conditions of marginality and with sporadic work in precarious conditions has to be noted. The settlement of this population conditioned at the time the existence of a marginal offer of employment and, for immigrant women, it had specific connotations: lack of training and lower offer of employment in the agricultural sector because of the seasonality of strawberry crops. This perception came from a lack of expectations in their countries of origin and housing needs in their new country.

These connotations, coupled with the increasingly active integration into the labour market of the Andalusian Women and the need for provision of care in the citizen environment, carried immigrant woman to home care, either as what we could call full time help, living at the home of the ill person, thereby alleviating the need for housing while receiving an income which, although low, covered their most essential needs; or rather as external help, with a number of hours agreed to care. In any case, formal recruitment through employment agencies was uncommon.

As recruitment policies have been changed, the enlargement of the EEC and legal measures aimed to regularize these situations has led to progressive change in the nationality of these care helpers, until today they are mainly formed by Latin America women, Eastern European women and Moroccans.

This also indicates an active, local immigrant integration policy that has provided the opening of the Local Council for Immigration, where measures are designed and developed to focus on the normalization and integration of this population.

In this sense, the Care to the Immigrant Municipal Office should be noted, which, among other things, manages all the employment offers, and it is where these carers presented a range of services addressed to prospective employers.

On the other hand, we have been empirically studying the implementation of the so-called Dependency Law; this law has released some carers from working out of their homes, substituting their work outside the home for the economic provision because of the recognition of dependence.

In this regard, indications are that Almonte have made and processed 419 applications for the recognition of dependence, of which 250 were of grade III and II-2, 51 resolutions of grade II-1 and 12 resolutions of grade I.

At the moment, we can speak of an immigrant population that is more stable, including 52 different nationalities, according to a municipal census, with a higher level of integration.

Currently, the Municipal census of Almonte contains a total of 3410 registered foreigners, with 152 different nationalities. The majority are as follows:

Romanian.....	1,890
Morocco.....	280
Polish.....	269
Equatorian...	189
Bulgarian.....	171

The total number of the foreign population is 15.5% of the foreign population over the total population.

There are a total of 2613 community foreigners, of whom 1416 are women and 1197 are men.

These two, detailed core studies, with women devoted to care, have full time, dedicated work, developing their work in the patient's home, where they live.

#### **Real situation. Third core. Huelva Capital**

The situation of the care in the capital is different, despite the fact that a high percentage of care is carried out in homes full time, with the arrival of the Dependency Law, as referred above; as a result, the situation changes, hiring caregivers in a part-time manner (sleeping out of the domicile) or working for hours.

Another important factor in the development of the field has been that, in Huelva, there are caregivers who work in the hospital and, at the same time, developed work at the home of the patient when he is at the hospital.

This is not a monopoly of foreign women carers who provide cares in hospitals, but there are also women that are health professionals who provide services outside of their administrative situation with the public health service. Within the studied phenomenon in the hospital context, we note another incipient event; under a market structure, companies dedicated to the attention of people exist, whose workers have in common the unregulated experience. Some have a course on home care and Geriatrics; but, even in this case, the labour niches for expatriates make the difference, and a company was created as described above, with the only difference being the nationality of the workers, who are exclusively Latin American. These are trained in care for the employer; he is a professional nurse, one of the first foreigners who settled in our city and also works in the public health service in our province.

With respect to the other companies, the care for elderly people is one of the wide ranges of services offered, as well as home cleaning and other domestic tasks such as picking up children from school, etc...

However, the company managed by this foreign citizen has a unique service of care to older people that varies if the site of the service is at home or, as in most cases, in the hospital. This company differentiates their workers from the rest because all dressed in a uniform, very similar to those used by health professionals at hospitals; the only difference is a logo of the company with advertising and contact details.

In the city of Huelva, we find that in the three existing hospitals, Hospital Juan Ramón Jiménez, Hospital Vázquez Díaz and Hospital Blanca Paloma, the previously named company that monopolizes the market makes it very difficult to find work for women who

are trying to deal with this job niche, since it is more reliable for the families to be served by an employee of a company whose motto is professional care instead of others that do not have endorsing references.

Therefore, non-formal care in hospitals in our province, as well as those at home, are still being carried out under foreign hands, with the big difference that they run within a business framework in specialized care. Regardless, the wages received by these workers, or self-employed, is always less than those who receive local people; there exist differences of up to 15 euros less for service performed.

### 3. FOREIGN CAREGIVERS. PROFILE

*Despite the fact that women have been always present in migratory movements, female migration has been characterized by its invisibility. However, this invisibility begins to disappear from the moment in which it detects the social and economic importance of women immigrants, and not just by their increase in number but by the socio-economic role they play in their countries of origin, as well as countries who emigrate. (Ruiz García, 2002)* For immigrants, domestic service acts as a labour niche in which there is no competition between immigrants and locals, especially in the case of the full time domestic service, as this is a type of work absolutely rejected by Spanish women. *However, there is a competition among the immigrants, a process of ethno-stratification based on the preferences of employers' families (Emakunde, 1999), in addition to less expensive wages.*

*The profile of immigrant women who are dedicated to the care of people in a situation of dependency varies in relation to the described pattern of formal carers, and that is why there are personal circumstances that often surround the work and personal context of this collective (Martinez Bujan, 2004).*

#### The age of Carers

The average age of women immigrants is usually between 20-40 years, with 25-29 being the highest stratum (INE 2007); however, in our data source resulting from the interviews, we see that the average age is significantly higher, with the youngest of the women interviewed being a woman of 31 years. This can be due to preferences from the employers, since older women have more experience, hold more and take more responsibility; young, foreign women tend to be employed in the agricultural sector, living with their compatriots in the field itself or a rural area. *The adult women don't mind staying the weekend at home, in contrast to a 20-25 year old who wants to exit. (IMSERSO 2005)*

#### Origin of the Immigrants

The origin is one of the most interesting issues, since it responds to the way that immigration is developing, i.e. networks. The origin of carers is not at all representative of the origin of immigrants who settle in the territory, and it is not attributable to any other logic that the extension of its own networks can explain, in order to deal with empty niches where the demand can be strong (IMSERSO 2005).

The nationalities of our respondents were as follows:

Romania: 4  
Ukraine: 3  
Bolivia: 3  
Kivavid: 11  
Venezuela: 2  
Peru: 2  
Colombia: 3  
Russia: 1  
Morocco: 1

It is important to emphasize that, in our areas of study, the logic of social networks reigned within nationalities, so we conducted a more exhaustive search, enriching results and trying to find other nationalities. In some areas, the nationalities were distributed by sectors or neighbourhoods, confirming this theory of recruitment on the basis of the rumour and networking.

### **The Family Situation of Carers**

The invisibility of immigrant women, and how this has evolved with the changes in the migratory flows and existing policies, has created a job niche for domestic and care work for the elderly people, where immigrant women do not have any competition with locals, given the precariousness of the work that we mentioned at the beginning of this section. This has enabled women of the families of the country of origin decide to lead migration processes, since arrival in the host country is going to be much easier, because of their illegal status. This is especially the case if they already have another compatriot who is working, as this social network will serve as buffer cost and assistance in seeking their first job. This phenomenon has been observed in 80% of the interviewees; the remaining 20% came regrouped, and they were first dedicated to agricultural work, since they belonged to the rural areas where immigrants were consolidated. One of the women interviewed currently lives at the home of a Lady as a full time worker with her two teenage sons who came re-aggregated.

Once the woman settles and begins to work as a domestic caregiver, it maximizes her revenue, as she does not spent in rent or food, and she saves everything to send to her family in the country of origin. This phenomenon occurs in some of the women interviewed, but others, especially those that are older, prefer to return to their country, and their main goal is to save. That is why one of the interviewed works on her free day for hours as a cleaner, while having her other job as a full time caregiver.

The most important thing in this section is related to the expectations of the interviewees regarding the care. The interviewed know very clearly that it is temporary work, not only because of the possibility that the person being cared for may become deceased, which increases the dynamics of jobs, but also because, in the future, they can regroup with their families or move to their countries. Those who stay in our city changed their full time work or part-time carers, as happened with some of our interviewees.

## **4. CARE STRATEGIES**

### **Training**

Only two of the 20 informants had received training concerning care: one of them was a clinic assistant in Venezuela and at the Red Cross of Huelva; the other had completed a course. The remaining 80% perform care without any experience. Those surveyed from Ukraine indicated they helped each other, transmitting among themselves their experiences and teaching those who were new, thereby creating a social framework to improve an employment network with their compatriots; 2 of the 3 girls of this nationality were friends, and they had shared the knowledge acquired in each one of their works: *“How?” Therefore, the lady who is very good she taught me everything I need. I do not know, I taught my friend. “Before, you took the lady that had Alzheimer’s, and I think I do well because her son and her daughter-in-law were happy”*. The Romanian informants were concerned that caring for them was not easy because they did not have previous training, but the need made them learn very quickly. Of the 4 interviewed Rumanians, 3 had a degree at university. Although the 4 quickly learned the work, they were very responsible people and asked us for training during the interviews. Latin American women had a common discourse, such that they do not need training because

care has been done by women all their lives, and this is something innate in women: *“women are forced to obey what the husband says, and if you get married it is because you have to comply with their obligations as a woman and be at home while her husband brings the money”* and *“wash, cook and care for children and the husband”*.

These women take care as an innate talent, not learned. European foreigners develop different strategies asking for help from their countrymen and from the family of the employers as well as using their social networks to acquire training; they are very responsible with the assignment and want to do it as well as possible. South American women have more attachment to their macro culture where the fact of being a woman means knowing all of the activities of daily life, including care; they feel well enough formed to develop the work without the need to be trained, although they do not reject training.

Training must be differentiated in our field of work; those interviewed who come from the aforementioned services company, since the owner is a professional of health, were *prepared* (not full trained). In this company, there are two employees who were nurses in Peru and work here as caregivers; although they feel prepared, they support important cultural differences that may lead to performing a less than satisfactory job. To alleviate this concern, the Manager caretaker of the company has created protocols, thus avoiding subjective care based on the culture of each of its employees: *“Carers I have applied their knowledge of nursing but agreement protocol and the work plan which makes it to do, if one wants to exit the scheme tells you because this have not done well.”* There are some that try to do so, as they possess ignorance while trying to do certain things that sometimes are not right. *“We have seen many times that we worked as companies, and we have coincided in rooms with caregivers who were not companies and us and trying to imitate the care we give to patients”*.

### **Different Perceptions of the Care**

Care has a very important dimension related to culture, inherent to the person who makes it; it is very difficult to create recipes for care, according to the origins of the women interviewed, as there are different perceptions within each of the nationalities, according to their own experiences, relationships, education etc... Although there is something common to each of the countries of origin of the women interviewed, the fact is that the women from the same country have common perceptions that are associated to health and political systems. Given this premise, we will try to mix perceptions of the women interviewed with different nationalities and try to create common characteristics that will help us to understand, empathize with them and, thus, contribute to the Spanish health professionals' competence as caregivers.

Health's Concept. Expressed by some interviewed:

*Latin American:*

*“Health, as its name indicates, is... okay, the person both internally and externally, right?” either as regards, also environmental issues, everything, or all inclusive, for me, more than everything, too much affection influences. Affection, because a person may be sick and always when love is offered, the disease will be less important. “Clear, because you also feel useful, independent of the disease they have, they are beloved”*.

*Eastern Europe:*

*“For me a person with health has no pain a healthy heart, head, and does not take pills”. Also is not sad.”*

*“Much laughter, great jokes, be happy, eat well, do sport, not to be sedentary, talk a lot, talk is a very good thing.”*

The analysis of these definitions of a health concept is very enriching, looking at the similarities in the views of the woman. While they are from dissimilar cultures such as Latin

America and Eastern Europe, the first thing that comes to mind when discussing health is the same association, health with affection; for them, health has to do with being emotionally well and feeling loved. They based their care in love and emotional support, which is very good of course, although it is not enough. This definition in immigrants is normal since the immigration duel is associated with a mental health cost, not only by the longing of their people but by what living in another country entails, in solitude, without the ones you love, with another language, with the lack of integration etc... Therefore, it is normal that their definition of health is aligned with being well emotionally and the absence of mental problems. Their associations of these concepts are basic, probably due to the lack of training, since the definition of health of the person with nursing studies was more complete and elaborate: *"because the term of health according to NANDA, according to the UN means and all that you know what.., this, Begoña."* *Because there are many factors influencing the weather, place and space more than anything else. The weather, depending of the circumstances of the year, and from health point of view may vary, more than nothing in winter; older people have too many colds, and could be vaccinated for the flu. People that make processes of pneumonia and have to be hospitalized, "The place I say, in terms of the place where you are, places here in Spain can be very controlled, but there is another type of influence that can affect the health of patients".*

If we discern concepts according to culture, we observe that the informants of the Eastern countries (Romania, Ukraine and Russia) added to the affection and emotional state something more: money. As they suggest that, in their countries, the health system is similar to ours in that there are good hospitals, good professionals etc., the big problem is the lack of resources to access them; so, in their definitions, they assume that health has to do with money. Fellow professionals of the health system of the region of study, when they were interviewed, mentioned that, after a Romanian patient nursing consultation, they received 5 euros in their pocket, since it was normal to pay in their country.

## **Cultural Shocks between Health Systems**

### *Latin America*

"Yes to medicine, to things which there are here and not in my country, the comfort of the existing social security, because we do not have it for all, but only for the elderly and the newborn infants under one year." That is the difference in medicine that I see here. "And another difference I see is the way we live, that all people work and at my country women always stay at home, we are used to be at home and being maintained by men..."

"Communication here is different from my country, very different, because in my country older persons are not treated as if they were equal; for example, if I speak with my friend in a rude way, in front of one older person no bad word would be said, more respect for that is what it is, no ugly faces, because you cannot. Not because it is abuse, but respect it's something that we learned. In the health system, for example we have injections to prevent flu because you can get many diseases in winter, so they come to the houses and health centres to inject before it reaches the winter. "In that there is not much difference."

"There what we have as an example of medicine, treatment, or therapies e.g. medicinal plants and all that." Here, you do not have that. Yes, you do other things? Yes, there is everything there. What happens is that the lack of resources is very bad. Of course we have different cultures right? For example Indians, our Indians, they heal with their powers which they have acquired. People, blacks for example from the coast, they also take care of them, for example. Myself, when I was working in the companies and moving well inside the woods there were people who had to get there, walking 7 hours or more. Lack of resources, I already left almost 7 years ago, and when I go back you can say that everything is the same. Well beyond, for example, cranes do not exist, as far as I know, you can have them, but I



speak, for example, at the working class level; you can have them at an upper classes, but there no, I don't know. But this is not an excuse to live someone to die..."

"Because the practices are more than anything what is alternative medicine or traditional medicine that are somewhat the use of herbs, ointments of animals, the use of other types of empirical knowledge." There is a very important work in this aspect that is traditional medicine; and what is it, as it is called, instructive is the medicine studied at the University; traditional medicine has sorcerers, healers, they can heal certain people. [It] occurs too much in Peru, because Social Security there is not as here in Spain, free, but there is very... this... how you can explain? In an expensive way, i.e. costs you, costs you a consultation, costs you a medicine, costs you to ask a question to the doctor, has a cost to go to the emergency room; and if you don't have money, you stay. Many times I was a witness in the travels that I have had these past years to Peru and recently found the case of a child who had fallen. He had a wound on his forehead and had to be sutured, but the family did not want to take it to the hospital because they could not afford the suture, and said that he will be okay, nothing happens, the scar will heal and should look like this. But [it] needed a suture and simply for not paying the suture and a lack of financial means, the child [who] was wounded badly healed. This is a minimal example of what can happen there. In areas of the forest is where I say that there is a nurse's work. They develop activities of how traditional medicine must be combined with modern medicine, and sometimes in those villages, more than anything in Amazon, not accepted [are] doctors, nurses or the obstetrician. They are not accepted, [but] rejected, and they prefer to continue his... his..., your sorceress, his sorcerer, his healer, bonesetter, also is named to the person who is responsible for return[ing] to place dislocated bones or treat[ing] any fracture. [This is] because they prefer their medicine by the economic aspect and the confidence they own [in] them. These are the aspects that there is. Because you have already said that they used natural remedies of all kinds, both plant and animal. There is a method called "jobeo"; the jobeo is a Studio that makes the person through an animal, which means good; the animal much used [is] the Guinea pig of India or the cui. The healer has been passed by the people and makes the interpretation of what happened in your body by the animal, and you can see, and matches many times, and there are many anthropologists, sociologists, both of the Peru and from abroad, made the jobeo. The patient is in bed, grabs a Guinea pig, becomes the Guinea pig, and when you're going through because the animal dies, then they open it and are doing a study if you shock, if you have good lungs, is as a kind of biological x-ray that passes so that you have the animal and is interpreted, and many times you have gases, and this match makes you stay thinking. I'll tell you from my own experience that I have studied nursing and the difference when I return to my roots tend me to make such practices and match many things, right? What I have, which reflects the animal, and what they say people who are responsible for this. "And this medicine endures today and perhaps as you've born in that environment, therefore also trusts your own medicine."

#### *Eastern Countries*

"There are many people who believe in other types of medicine, do not know how here in Spain but in my country, yes." It is medicine and people think: hospitals, doctors... Well, everything there, but hard to do know? It costs money. Do you understand?" "But there are all the same, but you need money, and that is why we all are abroad and we have to emigrate, you know, be[ing] healthy costs a lot of money..."

"In Ukraine, we have this disease; Chernobyl, did you say?" ...In 1976, near our capital, an atom as they say? Broken one... I cannot explain it... For us, [it] is very bad in Ukraine... "Here, thank God, it doesn't happen..."

“Here everything is it is at hours, all very accurate.” In Ukraine you can do things as well. There are medications when you can, no matter if we must give it every eight hours. “We are more cluttered; we do that when we can.”

*“We do not buy diapers or something like that.” There not take care of patients, because they need to work. They cannot devote time to the patient; he is left alone. “The person has to take care of one.”*

*“Some of those who heal without being doctors.” They say that it is better to be healed by natural remedies. “They are not medical, but they help people.”*

*“I know a man who is not a doctor, but help[s] cure, with his hands, the hurts or the one that have almost broken something.” He finds where the problem is and solves it. And that man cannot read or write and is very poor. “He lives in the village of my parents.”*

*“What I find more difficult is to wash a person, especially if he is a man.”*

*“Here you are very orderly with diseases; in Romania, also, you know what disease you have, and what the organism that gives it, but we cannot buy the drug that removes it from the body; that’s worse.”*

*“There the nurses have no means to be able to take care, because everything is very expensive; I remember when my daughter was born and the nurse asked me a paracetamol for her headache, because there was not in the hospital for her, only for patients who paid.”*

As noted, this section meets one of the objectives set out in the study: learn how care occurs in countries of origin in order to put ourselves in their place, empathize with them and understand some of their practices in health. At the same time, we must be able to train them while avoiding cultural shocks that currently exist both at the macro-sanitary level and the micro-level, in the homes of dependent patients cared for by carers from another culture.

Each culture has its own language, using phrases and expressions of that country that, when performing an assessment, nurses must bear in mind regarding what we are trying to say and the actual understanding and meaning. Then we are going to describe practices performed in the countries of caregivers, to understand their behaviours in our country about health.

Regarding reproductive practices, in the environments of the societies of origin, especially Latin America, women’s roles are fully reproductive. This is even more acute in rural areas. Although some authors find a differential fertility due to drag from the society of origin (three or more children per woman in the African and Latin American societies), it is not clear that these differences remain, or change, when approaching the reproductive behaviour of Spanish women. According to the experience of other European countries of immigration, foreign women who settle permanently, measuring the length of their stay, tend to approach the number of their children with that of the locals (Oliver et al. 2004). A study conducted in the district west of Almeria among women attending an IVE noted that prior use of modern contraceptives was higher among local women than in immigrants: 76.4% versus 55.3% (Soler y Coll., 2004). Likewise, the study on Nursing Diagnoses in immigrant population in the Poniente District detected a Sexual Ineffective Pattern diagnosis in connection with a lack of knowledge of effective contraceptive methods or its inappropriate use (Baraza et al., 2005). Regarding the voluntary interruption of pregnancy, we should bear in mind that in Romania it is not a practice carried out as in our country, since according to our informants, the profession that makes more money is a gynaecologist and the practice of abortion. Of four who were interviewed of this nationality, 100% had practiced an abortion in their country and some had more than two. They told us that, when Romania was a Communist country without access to existing contraceptives and the most commonly used was the IVE, it had generated the culture of abortion. A health observatory of the women of the Ministry of Health (published in 2006, with data from 2004) stresses that the rate of IVE in Spain stood at 8.94% in 2004, being the lowest in the European Union, and that increase was due to the increase in the immigrant population. For example, in Sweden it is at 17% and 50% in Romania. It has influenced the year of des-penalization, the restrictiveness of their

legislative regulation, customs and cultural constraints, and the presence or absence of family planning policies. Forty-nine countries around the world (41 of the world's population) have no restrictions for the gestational age for the practice of the IVE.

Other practices that are carried out are those related to food and health; these are the views that our women have on this topic:

"Of course, because when you are ill this is the importance that disease has, do you understand?" "If you have a very bad disease, can't eat as another person who is good."

"Of course, because of health, I need to eat well; eat well, I think it is very good." Yes, I need to eat well and healthy, like, good food. I do not know; it seems to me that [it is] the same as Ukraine here... We eat more pork meat; I prepare all food with fat, and that is not good for health, and here I so like lots of fruit. They eat much vegetables; we do not eat vegetables... "

"The power is very important for the elderly; for example, if they are in the hospital, the food is not bad, but they don't eat it; then when they leave the hospital, they need food with much iron, food that takes lots of energy, to give them energy, and that is very important because it will change the environment." "The food is very important for older persons."

"In my country it is more important, because here one, for example, arrives...when the person is old; they tell not, for example, do not give little, he eat little, by my experience, then I get and give more e.g. vegetables, fruit and all that; I will increase the dose and the person improves."

"Well, yes, a good diet produces a good absorption of vitamin complex, proteins and everything you need [in] the body and thereby a normal growth and a strengthening of the defences which give you a well-being, except when [it] breaks by accident or for any other reason."

There are beliefs that different cultures have a common link with respect to food, in countries with food shortages, either by economic problems or the political regime; when these people go to countries such as ours, where a variety of food is attainable for the working class, they do not understand the restrictions and do not consider food as assumed by the culture of the Mediterranean diet. As they reflect, when one is old or sick, they have to eat in abundance. Nursing has to take into account this cultural aspect to understand many of these carers' practices and understand how these can be of little benefit for chronic diseases of our elders.

Another practice of our women who left their mark in interviews is the differences in health care systems, as explained above; this, when qualitatively analyzed, has a reading that is very important for the treatment of our elders in what nurses call the ineffective management of therapeutic regimen, with speeches such as: *"here everything is going for hours, all very accurate;" in Ukraine you can do things as well. There are medications when you can, no matter if we must give it every eight hours. "We are more cluttered; we do that when we can." "Some of those who heal without be doctors." They say that it is better to be healed by natural remedies. "They are not doctors but they help people." "In Romania, I had TB without taking pills and nothing happened, and here for anything they give pills, to weight loss etc."* These inadequate practices in their countries, due to insecurity and scarcity of their resources, makes the person assume that it is normal; they do not give importance to medicine, or the pharmaceutical industry, given the lack of treatments of this type that occurs in their countries of origin, and they look to their traditional remedies. They do not follow our treatment guidelines, since they are in the same situation as us in their countries, and they do not take it so nothing happens. The lack of adherence to the treatment, as well as the lack of need for these caregivers, is increasing.

Regarding these practices, it is clear that a company's carers do not allow that because they have protocols.

## 5. CONCLUSIONS. APPLICABILITY OF THE RESULTS

Ageing is a social issue, but in recent times it has become a political and economic issue of the first magnitude. The physical overhead of people caring for a family member with a high level of dependence does have limitations in bio psychosocial health. This topic has acquired great significance with respect to health policy; it is even spoken of in the Congress to amend the law and expand benefits to improve the overhead carer's law of dependence. But the current response of our society to this major problem is overcome with unpaid and badly paid carers working many hours with our patients and incorporating them in your home as a full time worker. This type of work, mostly occupied by foreign women, in less than two years, has become the biggest collective caretakers paid by patients in our country. Although this phenomenon has not been the object of numerous studies, the reality is that the population of the fragile elderly (12), multi pathology, cognitive and affective disorders, difficulty in ambulation, urinary incontinence, hospital attendant and social isolation are being cared for by people without specific training, as well as a cultural heritage that is different from theirs.

This entails a culture shock that can lead to maintenance of health problems and even to an increase in the feeling of isolation from the patient. So the relevance of this study that makes it a social priority is that each of us suffers in our homes.

With the knowledge generated after the research, we can improve the quality carers providing to our elders, since we are able to understand and know the system of their way of life and values possessed by the women interviewed regarding the action of caring for others, and we can involve ourselves in the strategies they have developed to improve the quality of their work.

An applicability of the research set out above would be the elaboration of a guide to clinical practice in which communication strategies are developed with some prevalent foreigners' nationalities in our community, without falling in automations and recipes that are impossible, since we are dealing with individuals.

It could also be possible to design communication courses with the immigrant population to promote culturally competent care.

Another utility to consider would carry out an offering of informal carers, with payment possibly resulting from this research, who have demonstrated their skills and knowledge to be able to be used in future care; in this way, we would avoid having prepared unemployed people and duplicating the effort of the health centres to train new carers.

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# INNOVATIVE INTEGRATION IN TOURISM

## INTEGRAÇÃO INOVADORA EM TURISMO

*João Romão*  
*Paulo M. M. Rodrigues*  
*João Guerreiro*

### ABSTRACT

The differentiation of tourism destinations depends on the innovative integration of local cultural and natural characteristics of the territory into the regional touristic supply. A panel data model is used to identify – and to confirm – the influence of these “new” conditions for sustainable tourism development in the regional attractiveness in Southwest Europe, between 2003 and 2008. Other “traditional conditions” are also taken into consideration, namely those related to infrastructures and economic conditions. The work includes a critical literature review on the regional tourism systems, their relation with regional systems of innovation and the contribution of natural and cultural assets for the differentiation of tourism destinations.

Keywords: Tourism; Innovation; Differentiation; Nature; Heritage; Region

### RESUMO

A diferenciação dos destinos de turismo depende da integração inovadora das características naturais e culturais do território na oferta turística regional. Um modelo de dados em painel é usado neste trabalho para identificar – e confirmar – a influência destas “novas” condições para o desenvolvimento sustentável do turismo sobre a atractividade regional do turismo no sudoeste europeu, entre 2003 e 2008. Outras “condições tradicionais” para o desenvolvimento do turismo foram também consideradas, tais como as relacionadas com infraestruturas, condições económicas ou performance de destinos concorrentes. Este trabalho inclui uma revisão crítica da literatura sobre sistemas regionais de turismo, a sua relação com os sistemas regionais de inovação e o contributo dos factores culturais e naturais para a diferenciação dos destinos turísticos.

Palavras-chave: Turismo; Inovação; Diferenciação; Natureza; Herança; Região

JEL Classification: O33; C23; Q56

## 1. INTRODUCTION

The sustainability of tourism development should be based on the local differentiation of tourism supply based, in turn, on the cultural and natural characteristics of the destination, as proposed by recent international policies for the tourism industry (European Commission, 2006a; UNESCO, 2005; UNWTO, 2006; World Economic Forum, 2008; World Travel and

Tourism Council, 2006). The hypothesis to be discussed in this work is whether regions where elements related to heritage and natural conditions are successfully incorporated through innovative products and services into the tourism supply are able to sustain their levels of attractiveness.

A regional tourism demand function is developed, based on a panel data model, where determinants related to innovation and others generally related to tourism activities are used to explain the attractiveness of tourism destinations in Southwest Europe (measured by the number of nights spent in hotel accommodation in each region). Variables related to innovation include the regional efforts in research and development activities and the regional specific resources related to natural and cultural heritage that may be used to develop innovative products and services that contribute to the differentiation of tourism destinations.

Since the region is the basic unit for this study, the regional touristic systems and the factors that influence innovation in tourism are first analysed. Market dynamics and science and technology systems at the regional level (NUTS 2) will be considered. This territorial unit is important for administrative and political purposes, for the creation of regional networks, for the concept of tourism experience as a result of a large set of products and services locally provided and the availability of relevant statistical data. Local and regional specific elements that may characterise the differentiation of tourism destinations will be discussed, such as those related to natural resources and cultural heritage, with their particular limits and sensitiveness. Finally, the methodology, the panel data model results, the conclusions and some possible future developments of this work will be presented.

## **2. TERRITORY, INNOVATION AND TOURISM**

### **2.1. Regional Tourism Systems**

Tourism is an increasingly important economic activity with major impacts on regional economic development, employment and society. The strong growth of tourism since the middle of the twentieth century is explained by the generalization of the right to paid holidays (allowing for the massification of tourism, with positive impacts on local economies but often negative impacts on natural and cultural assets), reduction of work time, increasing revenues, globalization, improvements in transport systems, technological innovations (namely those related to information and communication) or demographic changes (Wall and Mathieson, 2006). Nevertheless, as tourism is a luxurious and voluntary activity, an economic crisis, a fuel crisis (or fluctuation in the fuel prices), insecurity (at the local or global levels) or pandemics can have a strong negative impact in the development of tourism activities and on local economies, mostly if we take into consideration that tourism products and services are largely provided by small companies, less protected against long periods of recession (European Commission, 2006a).

The definition of “tourism” evolved over the last decades (Vanhove, 2005), and it is now commonly accepted that it includes a dynamic element (temporary travel), a static element (staying in a specific destination outside the tourist’s normal place of work and residence), economic consequences (facilities and services provided) and a result of a large set of products and services locally provided (production and consumption occur necessarily at the same time and in the same place). A comprehensive approach to the tourism system (Richie and Crouch, 2005) includes “competitive (micro) environment” and “global (macro) environment” conditions at five different levels: “Supporting factors and resources”, “Core resources and attractors”, “Destination Management”, “Destination Policy, Planning and Development” and “Qualifying and Amplifying Determinants”. Over the last years, the



concept of tourism destination came to the centre of analysis: even if tourism services are provided by a large number of companies, tourists perceive destinations as an integrated experience (Buhalis, 2000).

Tourism services are provided by a large quantity and variety of companies, such as tour operators, travel agencies or airline companies. Most of these services are now available on the internet (allowing tourists to collect information, organize travels, make reservations and pay for the services using websites), implying a more sophisticated production of information and interaction with costumers, who became increasingly more autonomous. Accommodation (in different kinds and categories of establishments), restaurants, night-life and transportation services play a decisive role in each tourism destination, although they are not the most important determinants of the attractiveness of a place. Other services that are not exclusively oriented for tourism can play a determinant role on the attractiveness of a tourism destination, including those related to natural resources, heritage sites, tangible or intangible cultural elements, cultural or sporting events, recreational or educational activities, infra-structures or other attractions.

Consequently, the quality of the experience depends on the satisfaction obtained from a large set of products and services provided in each destination and may vary with the characteristics, expectations and motivations of each tourist (Scott, et al., 2009; Romão et al, 2013). Local cultural aspects must be included in the tourism supply and will be used by consumers with different cultural values (Jafari and Way, 1994). This systematic approach has important implications on the image, marketing and promotion because each destination has its own history and evolution, which also leads to the relation between tourism destination and the characteristics of the territory, which is central to this work (Formica and Kothari, 2008; Kozak and Rimmington, 1999).

On the other hand, the heterogeneity of contemporary tourists' preferences is accomplished by the heterogeneity of tourism destinations (Hassan, 2000). As tourism destinations compete with rivals all over the world in order to attract consumers who are distributed globally, questions relating to positioning and branding tourism products and services become increasingly important, implying place audits, definition of visions and goals and strategic market plans that also take into consideration the past evolution of the tourism destinations (Kotler et al., 2005).

Tourism destinations are multiproduct areas for multi-segment markets, with multi-clients from multi-origins and their multi-motivations. Big international companies (like tour operators or airlines) interact with local small product and service providers (accommodation, restaurants, bars, cultural activities, organized tours, etc.) and increasingly interact with consumers from all over the world. The coordination of promotional activities and control over limited or sensitive assets require an active intervention from Destination Management Organizations and interaction with other institutions, in order to clearly identify and promote the different experiences that may be offered based on local specific resources and oriented towards the needs and motivations of particular consumers.

## 2.2. Innovation in Tourism

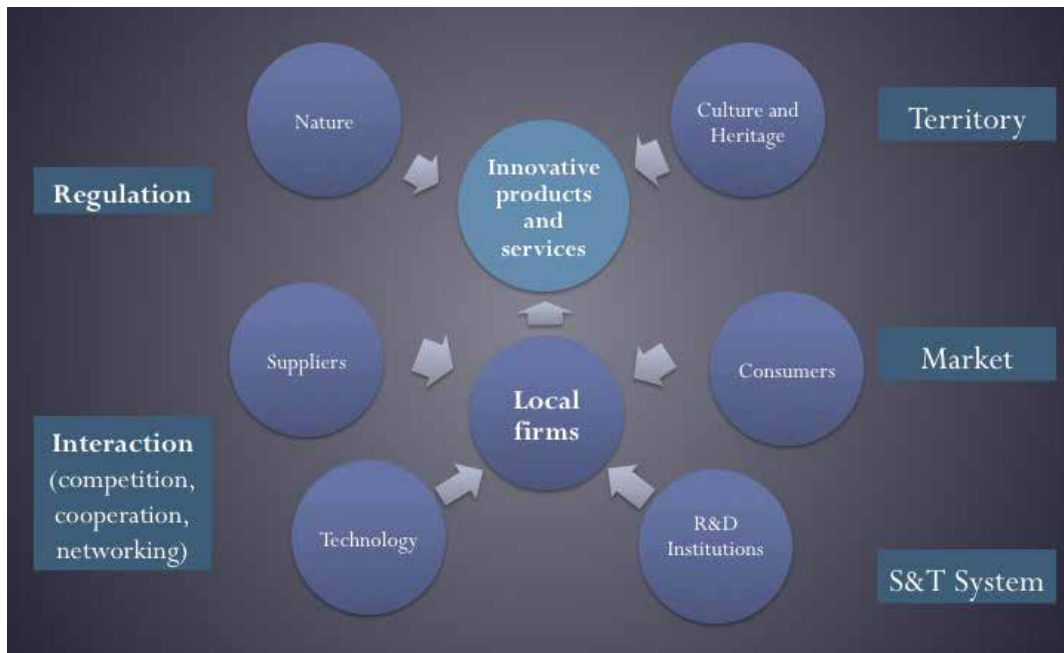


Figure 1: Regional Innovation in Tourism

As the concept of tourism destination relies on the idea of a network of cooperatively provided services at the local level in order to satisfy the needs and expectations of the visitors (Daskalopoulou and Petrou, 2009), innovation in tourism results from all interactions between companies (large and small, with different purposes), among firms and consumers (taking benefits from the increasing interactivity), from technological developments resulting from the cooperation between tourism companies and R&D institutions or even from outside tourism, like the developments of information and communication technologies (Ramos and Rodrigues, 2011). As tourism supply (and demand) is becoming increasingly complex and incorporating more specific information about different destinations, using technologically sophisticated means of communication, tourism is an increasingly knowledge based economic activity that is globally distributed, where innovations can have a global diffusion (Millar and Choi, 2011).

Although these processes of innovation tend to spread faster when there is more interaction between local firms and R&D institutions, considering the global character of tourism activities, the importance of international companies and the possibility for the innovative services to be shared or known on the internet, they can easily spread from a touristic region to others. Nevertheless, the processes of innovation related to the development of products and services based on local specific resources cannot be imitated, and they can definitely contribute to the differentiation of a tourism destination. On the other hand, the local interaction between producers and consumers in a specific territory enhances the importance of local and regional innovation networks for tourism products and services (Williams and Shaw, 2011).

Consequently, the processes of innovation in tourism depend on the creation of regional networks for common learning (European Commission, 2006b). The concept “learning-area” as a network is reinforced by the idea that technological developments in information and communication have a relevant impact on innovation, namely in the tourism sector, where the overall product is delivered in a fragmented way by multiple small providers (Davie et al., 2002). The fact that tourism is one of the most globalized economic activities does not reduce the importance of local networks (Asheim and Coenen, 2006). Nevertheless, processes

of regional innovation do not rely only on the technological conditions of each place but also on other conditions that can stimulate the processes of communication, cooperation and co-learning in each region (Pinto and Guerreiro, 2010; Pinto and Rodrigues, 2010). Innovation is a path-dependent process where “history matters” (Malakauskaite, 2010) and an evolutionary process where institutions are, themselves, subject to evolution (Steiner, 2006), combining continuity (existing elements) and radical change (new combination) (Lundvall, 2002).

Local and regional networks can be systematized in different theoretical perspectives: industrial districts, new industrial spaces, local or regional production systems, local and regional innovation systems, learning regions or clusters are different approaches that can be applied to the local and regional tourism systems (Asheim and Coenen, 2006). These networks have relevant impacts on productivity, innovation and creation of new businesses related to touristic activities and reinforce the mechanisms of transformation of knowledge into innovative products and services, which can be embedded, tacit, localised or research based, in order to create new products or services, new processes, new managerial practices, new management methods or new institutional solutions (Hjalager, 2010). Tacit knowledge is the most difficult to incorporate in an organization but also the most difficult to imitate, and it has favourable conditions in tourism, given the co-terminality (interaction between consumers and providers), spatiality (consumption and production occur in the same place) and temporality (consumption and production occur at the same time) of tourism services. Connectivity between tourism service providers and between them and consumers is highly enhanced by the developments in information and communication technologies, reinforcing the importance of networks for innovation in tourism (Simmie, 2006).

These characteristics also show the systematic character of innovation in tourism (Hall et al., 2008): a tourism destination includes a large group of products and services, provided by different enterprises and public institutions, most of the time not only related with tourists but also with local communities. This characteristic of tourism implies a greater effort to coordinate networks of different kind of institutions, with different purposes: strong regional coordination and cooperation among stakeholders is of particular importance to facilitate the processes of innovation and can contribute to the reinforcement of the uniqueness of each destination.

The extraordinary evolution of information and communication technologies over the last three decades also had profound implications on tourism activities, which have a very intensive use of information on services and destinations. These implications are even more relevant if we consider the importance of making decisions on travelling to distant places that consumers, most of the times, do not know. Finally, travelling decisions are mostly made well before the travel occurs, which implies the necessary reservations of transports, accommodation and other services before the services are used.

Consequently, Computer Reservation Systems (CRSs), Global Distribution Systems (GDSs) and internet imposed important changes in practices, strategies and industry structures: technological developments related to the efficiency of search engines or the carrying capacity and speed of communication networks changed the way a large number of tourists plan and organize their travels. On the other hand, these developments on information and communication technologies had an important positive effect on the efficiency and effectiveness of tourism organizations and their interactions with tourists. In fact, considering the close link between tourism activities and territories, developments in Geographical Information Systems have created new opportunities for tourism marketing and promotion (Chang and Caneday, 2011). Analyzing the technological developments in Information and Communication Technologies applied to tourism activities, Aldebert et al. (2011) emphasize the importance of infography and design (since 2003), new and

more interactive software solutions (since 2005), massification of the internet (since 2005), massification of mobile phones (since 2006) and Web 2.0 (since 2008). Sigala (2010) stresses the new possibilities to personalize the processes of communication and to enhance the possibilities to develop Customer Relation Management (CRM) strategies linked to the emergence and massification of the social networks (Web 2.0).

Web 2.0 also increased the mediatisation of tourism, enlarging the possibilities for tourists to produce information in different media about tourism destinations (Mansson, 2011): the tourist can collect information from multiple sources before the visit and produce his/her own information during and after the visit. This process of convergence (Jenkins, 2006) implies an interdependence between different media supports and multiple ways of accessing media content. Recent works analyzing these new tendencies have shown, for example, that the generalization of social networks tends to significantly reduce the role of the informative websites managed by Destination Management Organizations (Parra-Lopez et al., 2011). Other studies have focused attention on the descriptions of travels in personal blogs (Lyn, 2006) or photography websites (Lo, 2011), showing the diversity of independent and complex information available for the tourists when they choose a destination.

It is possible to say that the developments in information and communication technologies created a new paradigm in the tourism industry, contributing to a generalized reorganization of processes and creating new opportunities and threats: tourists can easily access accurate and reliable information about services, products and destinations or make reservations without costs or losing time, which contributes to improved quality and satisfaction. Recent studies analyse the impacts of these technological developments in information and communication technologies on urban tourists' behaviour (e.g., Neuts et al., 2012; Romão et al., 2013).

### **2.3. Territory and Differentiation**

These technological developments are opening new opportunities for tourism development in many regions of the world. The possibility to provide precise and attractive information about the characteristics of each territory, namely on their cultural traditions, heritage sites and natural resources, contributes to create specialized products for specific visitors: technological developments are a very important tool in order to create differentiated markets, adjusted to the local characteristics, in order to attract specific segments of a global market. Nevertheless, it is also necessary to take into consideration that specific local resources related to natural or cultural aspects of the territory are generally very sensitive to the excess of usage, implying the need for some measures that ensure an adequate number of visitors, considering the "carrying capacity" of each site and the cost of preservation: a level of utilization that ensures economic benefits in the short and long run, and that allows the destination to keep the original characteristics that makes it attractive. Consequently, the exploitation of local natural and cultural resources for tourism activities must take into consideration their preservation in the long run and the value that these assets represent for local communities (Romão et al., 2012 b).

The definition of international standards for the touristic utilization of cultural and natural sites, like the registration of a place as a World Heritage site classified by UNESCO, can promote a better protection and a more sustainable use of resources, but it can also have relevant negative impacts resulting from an excess of usage (UNESCO, 2005). This also requires a process of careful and detailed planning involving tourism companies and regulatory institutions. Another important question related to cultural heritage is related to the authenticity and commodification of cultural resources and their use for touristic purposes, although it may have an important contribution towards the preservation of traditional activities. Heritage is a representation of History and this subjective collective memory, permanently under discussion and reconstruction, is a result of political and

ideological conflictive perspectives (Harrison, 2005). Heritage must be accessible to enrich the touristic experiences of visitors but must also be connected with the values of local communities. Consequently, it is highly desirable that local stakeholders have an active participation in the processes of planning, development and implementation of tourism activities (Evans, 2005).

The differentiation of tourism destinations that ensures the attractiveness of a destination in the long-run depends on the promotion of innovative products and services related to the natural and cultural characteristics of the territory. This kind of development allows the destination to assume a monopolistic competition with other destinations, based on differentiation, instead of a cost-leadership competition, which would have smaller impacts on the local economies and larger impacts on natural and cultural resources. Finally, and taking into consideration the importance of spreading benefits among local stakeholders, promoting interaction between tourists and local communities contributes to ensure appropriate conditions for long term tourism development, enhancing local social cohesion.

### **3. INNOVATION AND REGIONAL TOURISM DEMAND: A PANEL-DATA APPROACH**

In this paper, the regional tourism performance in south-western European countries has been analysed using a panel data model (Baltagi and Coenen, 2006; Elhorst, 2003) considering the evolution of tourism demand and its determinants from 2003 to 2008. 67 regions (NUTS 2) were considered: 17 in Spain (excluding Ceuta and Melilla, due to their particular situation and lack of some data), 22 in France (excluding Guadalupe, Martinique, Guyane and Reunion, due to their geographical localization), 21 in Italy and 7 in Portugal (Romão et al., 2012 c). The statistical information used in this work was collected from national and international official statistics institutions: Eurostat; European Commission - Environment DG; UNESCO; Instituto Nacional de Estatística (Portugal); Instituto Nacional de Estadística (Spain); Institut National de la Statistique et des Études Économiques (France); Istituto Nazionale di Statistica (Italy). The models were estimated in R 2.10.1 for Mac OS (Croissant and Millo, 2008) and maps were produced with ArcGis 10 for Windows Vista.

Although tourism destinations can have different geographical limits, for the purposes of this study the “region” (NUTS 2, according to the European classification) has been considered as the unit of analysis. The advantages of this option are related with the availability of statistical information and the existence of relevant administrative and political institutions responsible for the management and promotion of tourism activities at the regional level.

The main purpose of this analysis is to understand if natural and cultural resources have a positive impact on regional tourism demand, assuming that these specific local assets may contribute to differentiate destinations if they are based on innovative products and services. In this sense, natural and cultural resources (as potential tourism products) and regional efforts on innovation (as a proxy for the dynamics of the regional innovation systems) are classified as “Innovation Conditions” for regional tourism attractiveness.

On the other hand, other elements of the regional tourism systems, classified in this model as “General Conditions”, are taken into consideration, trying to obtain a comprehensive perspective of the factors that influence the attractiveness of tourism destinations and considering the availability of comparable statistical data. The evolution of demand in rival destinations (Southeast European countries), economic conditions (investment in the previous year in the tourism sector and evolution of national and international markets),

availability of infrastructures for accommodation and international mobility, and qualification of human resources were taken into consideration in this model.

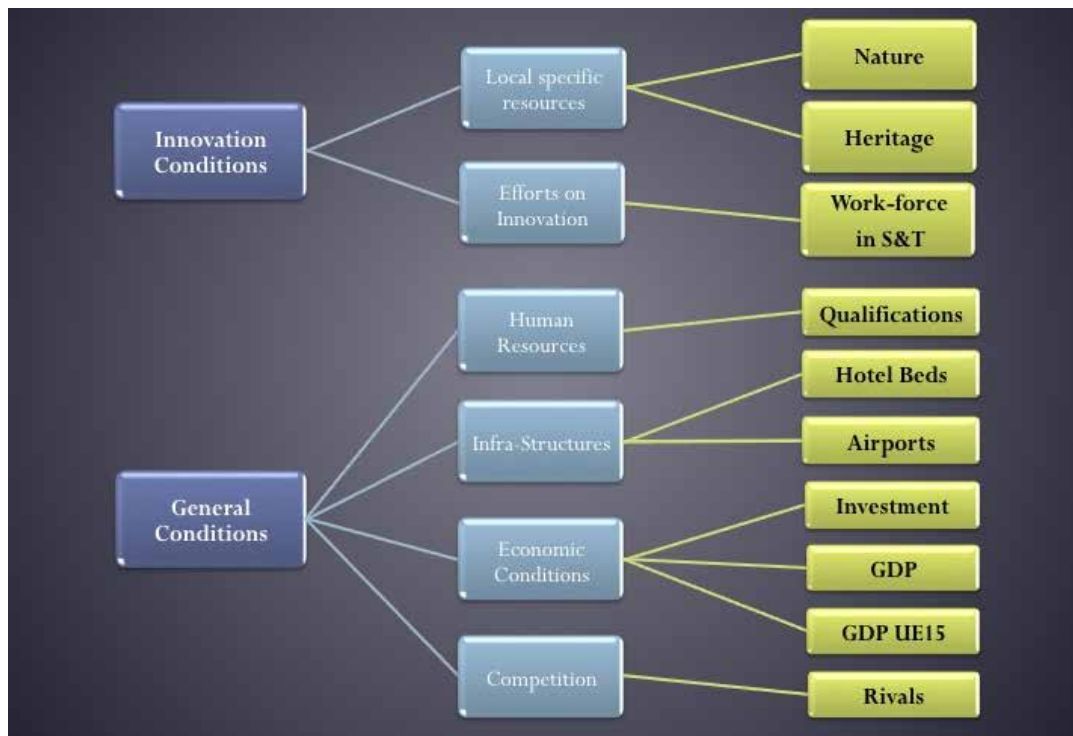


Figure 2: Conceptual model – Innovation and Regional Tourism Demand

The number of nights spent by tourists in hotels and similar establishments in each region (“Nights”) is used as a proxy for regional touristic attractiveness. From the data it was observed that the explanatory variables include data related to some general conditions for the regional development of tourism:

- infrastructures available at the regional level – “Beds” (number of beds in hotels and similar establishments) and “Air” (existence of international airports);
- economic conditions – “GDP” and “GDP\_UE15” (evolution of GDP at national and EU-15 level) and “Invest” (investment in hotels and restaurants);
- demand in competing markets – “Rivals” (number of nights in hotels from Turkey, Greece, Croatia and Cyprus);
- qualifications – “Educ” (percentage of the regional population with tertiary education).

Two dummy variables were included in the model, one related with the geographical situation of each region (“GEO”: inland, south coast or west coast) and the other with the position in the tourism area life cycle (“TALC”: exploitation, development or stagnation), which has been estimated in two steps, considering three stages (Butler, 1980; Romão et al., 2012a):

- the regions with annual growth rate above 2.5% were considered in “Development”;
- for the other regions, a Location Quotient has been calculated, dividing the weight of the employment in hotels and restaurants in each region by the weight of the employment in hotels and restaurants in the overall area being analysed; it was assumed that a Location Quotient above 1 implies a high level of specialization in tourism (“Stagnation” stage) and a Location Quotient below 1 suggests that tourism activities are not so important in those regions (“Exploitation” areas).

Finally, three variables related to innovation were considered, assuming that local natural and cultural assets are the basis for the differentiation of tourism destinations according to the characteristics of the territory. It is important to notice that availability of these assets does not necessarily mean that they are exploited as tourism resources, but it means that such potential exists at the regional level and that their exploitation implies an effort for the development of innovative products and services:

- efforts on innovation (measuring the development of the regional systems of innovation);
- availability of cultural assets (number of heritage sites classified by UNESCO);
- availability of natural assets (environmentally protected areas).

The regional efforts for innovation (“ST”) were measured using the percentage of the work force involved in Scientific and Technological activities. This variable is used as a proxy to measure the interactions at the regional level between the tourism companies, consumers, suppliers and other entities of the scientific and technological system (Figure 1), and it was possible to observe that:

- 17 regions had more than 45% of the active population involved in R&D activities in 2008 (9 in France, 7 in Spain, 1 in Italy);
- 16 regions had 35% or less of their active population in R&D activities in 2008 (8 in Italy, 2 in Spain, 6 in Portugal).

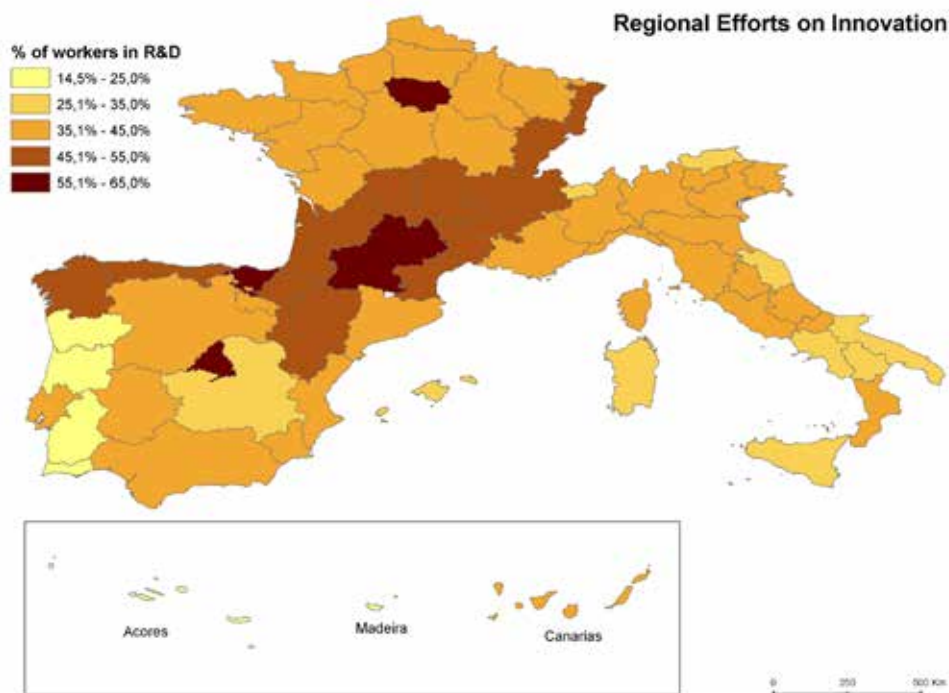


Figure 3: Regional Efforts on Innovation

The regional cultural assets (“Heritage”) that contribute to the identity of tourism destinations have been measured considering the number of heritage sites classified by UNESCO, assuming that the inclusion of classified heritage sites in the regional tourism supply is one of the means to develop innovation activities that can lead to the differentiation of tourism destinations. It was possible to observe that:



- 11 regions have 5 or more classified sites (3 in Spain, 4 in France, 5 in Italy);
- 7 regions have no heritage sites recognized by this organization (Algarve, in Portugal, and 6 Italian regions).

In the same sense, the natural resources (“Natura”) were evaluated considering the proportion of protected areas included in Natura 2000 in the regional territories. These resources require innovative activities for sustainable touristic exploitation and imply a particular attention to the pressures imposed on the territory, namely those related to number of visitors. 11 regions have more than 30% of its area in Natura 2000 (5 in Spain, 2 in France, 2 in Portugal, 2 in Italy).

These two variables (“Natura” and “Heritage”) measure the importance of the characteristics of the territory for regional innovation in tourism (Figure 1).

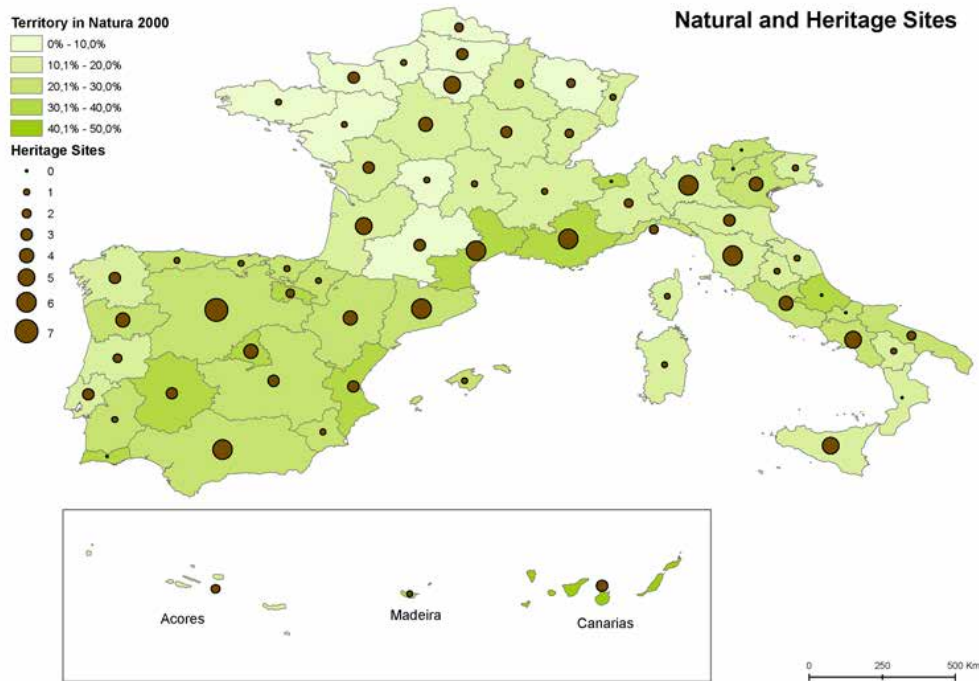


Figure 4: Natural and Cultural Touristic Resources

Several random effects models were estimated, and it was possible to observe that the best results were obtained with a “Pooling Effects” Model. The variables “Nights”, “Beds”, “Invest”, “GDP”, “GDP\_EU15” and “Rivals” were logarithmised. It was also observed that the variables “GDP\_EU15 level”, “Rivals” and “Educ” were not statistically significant.

The final model is expressed as:

$$\text{Lognights}_{it} = \beta_0 + \beta_1 \text{logbeds}_{it} + \beta_2 \text{air}_{it} + \beta_3 \text{loginvest}_{it-1} + \beta_4 \log \text{GDP}_{it} + \beta_5 \text{ST}_{it} + \beta_6 \text{Heritage}_{it} + \beta_7 \text{Natura}_i + \beta_8 \text{GEO1}_i + \beta_9 \text{GEO2}_i + \beta_{10} \text{TALC1}_i + \beta_{11} \text{TALC2}_i$$



The parameter estimates obtained are presented in the following table:

**Table 1: Panel Data Model Estimations**

	Estimate	St. Error	t-value	Pr(>  t )
$\beta_0$	13,82722	1,19577	11,5635	$<2,2e^{-16}$
$\beta_1$	0,70682	0,02825	25,0186	$<2,2e^{-16}$
$\beta_2$	0,13708	0,04335	3,1619	0,00169
$\beta_3$	0,23912	0,02206	10,8385	$<2,2e^{-16}$
$\beta_4$	-0,93440	0,12630	-7,3984	$8,531e^{-13}$
$\beta_5$	1,12374	0,22830	5,0099	$8,272e^{-7}$
$\beta_6$	0,02378	0,00939	2,7467	0,00630
$\beta_7$	0,68802	0,19776	3,4791	0,00056
$\beta_8$	-0,06182	0,03823	-1,6173	0,10661
$\beta_9$	-0,29830	0,04416	-6,7558	$5,184e^{-11}$
$\beta_{10}$	-0,27510	0,04359	-6,3116	$7,516e^{-10}$
$\beta_{11}$	-0,22706	0,04389	-5,1735	$3,681e^{-7}$

From Table 1 it is possible to observe the statistical significance of the variables considered, even for the variable GeoI (close to the limit of 10%). The negative correlation between the nights spent in a region and the level of its national GDP shows that countries where tourism is more important are economically less developed and also indicates that this variable was not relevant to identify the influence of national economies on domestic tourism demand. A positive relation between the attractiveness of the regions, the other basic conditions for the regional touristic attractiveness considered in the model and the three variables used to measure the innovative efforts to differentiate tourism supply based on local resources was also identified: “ST” (regional work force involved in scientific and technologic activities), “Heritage” (number of sites classified by UNESCO) and “Natura” (natural protected areas).

## 4. CONCLUSIONS AND DISCUSSION

### 4.1. General conclusions

The most important conclusion that arises from this analysis is that the conditions for innovation in tourism activities play an important role on the attractiveness of tourism destinations of Southwest Europe. A positive statistical relation between the efforts on innovation and the regional touristic attractiveness suggests that regions with more developed innovation networks are using this competitive advantage in order to create innovative tourism products and services that reinforce regional attractiveness; local specific natural and cultural resources are used as core elements of touristic attractiveness, contributing to the differentiation of tourism destinations.

Consequently, it is possible to consider that, as a general tendency, south-western European regions are successfully integrating the specific characteristics of their territories in order to differentiate the products being offered, contributing to the achievement of commodity tourism areas and for a competition based rather on differentiation than on cost leadership, creating more benefits for local stakeholders and implying less degradation of local resources. Similarly, it is possible to conclude that these regions tend to compete on the basis of monopolistic competition.

This process also implies an effort in the definition of an adequate promotion strategy and a correct positioning of the touristic products, taking into consideration target markets but also past evolution of each destination, which is a particularly relevant aspect in regions in the later stages of the life-cycle of the touristic products, where mass tourism imposed severe degradation of local resources and requires a re-positioning of the tourism destination.

Nevertheless, it must be taken into consideration that the NUTS 2 regions used as the unit of analysis in this work do not clearly show the situation in all specific tourism destinations, considering that each region can include more than one destination, possibly with very different characteristics. Even if the general observations show a clear link between innovation, differentiation and attractiveness, it is still possible that some destinations base their attractiveness on massive exploitation of non-differentiated resources, products and services (like sun and sea).

This work also shows the importance of other general conditions for regional tourism attractiveness, namely those related to the availability of touristic infrastructures (accommodation and airports) or the regional investment in the tourism sector.

#### **4.2. Discussion and developments**

The results of the model motivate its extension by enlarging the regions and the period under analysis, including the most recent years. This new approach may contribute to identify the different impacts of the international economic crisis on tourism destinations and to compare the evolution of the attractiveness in tourism regions with different characteristics: in this case, we are considering countries with similar climate and cultural conditions, but it would be interesting to include regions from other European countries, with different tourism products.

On the other hand, the fact that this analysis does not show a significant impact of the evolution of demand in rival destinations does not mean that these impacts may not occur in the future. Further developments of this work will include the observation of other features that may have a relevant impact on the performance of tourism destinations, namely those related to prices, origins and characteristics of visitors (markets), destination management and promotion or involvement of local communities in the process of tourism development. Questions related to the excessive usage of natural resources or commodification of cultural community values were also not taken into consideration and can be important elements to consider in other works.

Finally, the process of innovation itself can be analysed in greater detail, trying to identify the regional impacts of usage of communication and information technologies in tourism activities or the regional capacity to produce new technological solutions for tourism (namely considering the number of registered patents). Nevertheless, the availability of statistically comparable data for the regions under analysis must be taken into consideration, which can imply the use of other methodologies and other types of data (like qualitative information).

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# KIBS IN PERIPHERAL REGIONS: MAJOR OUTLINES

## KIBS NAS REGIÕES PERIFÉRICAS: CONSIDERAÇÕES GERAIS

*Teresa de Noronha*

### ABSTRACT

Firms, in general, have an absorptive capacity that permits them to recognize the value of new, external information, assimilate it, and apply it to commercial goals. This capacity results from their level of prior related knowledge and they can become creators of innovation in a context of micro and small sized young firms, coming up with innovative outputs.

The first goal of this paper is to pursue this discussion in the context of KIBS (Knowledge Intensive Business Services) which are non-material firms, providing intangible and highly personalized services submitted to the general market rules. Also, the geography of KIBS will be emphasized by pointing out the restrictions related to its major role in the peripheral areas of the world. Therefore, this paper presents an analysis of cross country experiences, identifying bottlenecks and common results to demonstrate the major role of KIBS in such environments.

The conclusion of the research is twofold: For peripheries, the innovation capacity of KIBS depends on their internal capacity to innovate (as pushing forces), but for KIBS, their main function depends on the *readiness* of their clients to use their skills to innovate (as pulling forces). This last determinant varies with the readiness of their clients to network and innovate and with their labor force to learn.

Keywords: KIBS; Business Services; Knowledge Management; Peripheries

### RESUMO

Em geral, as empresas têm uma capacidade de absorção que lhes permite reconhecer o valor da nova informação e de a assimilar ou aplicar para diversos fins comerciais. Esta capacidade resulta do seu nível de conhecimento prévio que lhes permite atuar como fontes externas de conhecimento, podendo tornar-se criadoras de inovação num contexto de micro e pequenas empresas.

O primeiro objetivo deste artigo é o de seguir esta discussão no contexto de Knowledge Intensive Business Services (KIBS), fornecendo serviços intangíveis e altamente personalizados de acordo com as regras gerais de mercado. A geografia das KIBS será destacada indicando as restrições relacionadas ao seu papel principal nas áreas periféricas. Apresenta-se uma análise de experiências pelo mundo, identificando bloqueios e práticas comuns na tentativa de demonstrar o papel principal das KIBS em ambientes menos promissores.

A conclusão indica-nos que para as periferias, a capacidade de inovação das KIBS depende da sua capacidade interna de inovar mas a sua função principal de promotora depende da prontidão dos seus clientes absorver novos conhecimentos e ideias, um movimento que se robustece em ambientes de redes.

Palavras-chave: KIBS; Apoio às Empresas; Gestão do Conhecimento; Periferias

JEL Classification: O32, L22 e L25

## 1. INTRODUCTION

According to literature reviews, KIBS (Knowledge Intensive Business Services) are non-material firms providing intangible and highly personalized services. Their capacity to act as external sources of knowledge to their clients allows them to become independent creators of innovation in a context of micro and medium sized young firms, coming up with innovative outputs.

Since the 1960s the conceptualization of KIBS has changed into a more systemic perspective to explain innovation in the service sector. Firstly, this paper revisits and discusses this conceptual evolution which has been deeply linked to a better understanding of what innovation is about. For almost three decades, between the beginning of the 60s and towards the ends of the 80s, innovation was associated with technological materials and equipment, essentially pointing to product innovation. R&D played a deep role in establishing innovative firms.

A new phase started in the 90s when the innovative processes focused more on the transformation sector, emphasizing the development of new organizational products in the service sector and, moreover, contributing for increasing the new managerial capacity of firms. As organizational innovation was taking place, in a context of lower investments but still permitting rising profits for firms, new theoretical approaches exploited the role of service innovation and its capacity to spread, dragging innovation with it. Soon after, a clear theoretical feature was developed for the distinct function of services within the growing transformation sector so that new specific classifications could allow measuring the impact of such firms for innovation and growth. The most recent research in the field points out an integrative and holistic approach to better seize innovation in services and its impact across the other economic activities.

More than the impact across sectors, we would like to emphasize the geography of KIBS. After a conceptual introduction, the empirical part of this study analyzes the level of efficiency of KIBS as instruments to diffuse knowledge and stretch marketing or organizational innovation in the peripheral areas.

The materials and methods to sustain this essay are composed by the description of a series of case studies in Spain, Brazil, Finland, Canada, Italy and Portugal. Their comparative analysis suggests cross country experiences, identifies bottlenecks and finds common results in an effort to demonstrate the major role of KIBS in such environments, generally populated by small firms.

The third part of this paper tackles the general capacity of small firms to learn when located in peripheral environments, hereby considered to be one of the most serious restrictions in the acting role of KIBS. A theoretical framing justifies this view as well as a set of results obtained from a previous European project on the contribution of innovation for the dynamics of local development.

This second empirical discussion is based on a set of data gathered from 323 firms located across six European peripheral regions located in Belgium (Hainaut, West Flanders), France (Aude, Gard), Ireland (Border, Southwest), Poland (Kujawsko-Pomorskie), Portugal (Oeste, Alentejo Central) and the UK (Devon and Cornwall, Hereford and Worcester). The argument emphasizes the key trends of small firms when in the presence of more, or less, innovative attitudes. Furthermore, it characterizes the actual skills in management and labor as well as their capacity to learn by interacting and cooperating with external agents – characteristics that are crucial to absorb the inputs that KIBS may transmit to their clients.

Finally, the conclusion of the research is twofold: For peripheries, the innovation capacity of KIBS depends on their internal capacity to innovate (as pushing forces), but for KIBS, their main function depends on the *readiness* of their clients to use their skills to innovate

(as pulling forces). This last determinant varies with the readiness of their clients to network and innovate and with their labor force to learn.

## 2. CONCEPTUAL DEVELOPMENTS

Throughout the last decades many studies related to innovation have been presented, contributing with sufficient scientific ground to a clear understanding about the innovative processes. In general, there is an almost consensual understanding on the complexity of innovation and also on the fact that knowledge plays a major role to address it. However, innovation goes much beyond product and process development. It presents an interactive nature for which knowledge, the main pillar, is not only a firm characteristic but also a spatial endogenous characteristic.

Thus, although the firms' capacity to set up flourishing innovation processes is frequently understood as a similar, key success factor in both manufacturing and service sectors, there are distinctions to be made: Not only services and manufacturing have different innovation drivers, but they also both depend differently on the social and regional contexts in which firms are embedded.

Besides these points, most of the theoretical approaches on innovation focus on product development, lacking clear conclusions for process, organizational or marketing innovation, frequently related to service organizations and in particular to KIBS.

So, it is not surprising that, in light of an emerging "knowledge-based economy", studies related to particular, fast growing service subsectors, such as KIBS, are promising and meaningful scientific contributions. KIBS use high quantities of knowledge based attributes when providing their support to clients, shedding new light on the better understanding of the complex innovation processes and, subsequently, to growth.

In this paper we emphasize both aspects: KIBS as an important emerging sector able to innovate and, moreover, as a potencies role player in the regional development process. As innovators, Nählinder, 2002, pointed out KIBS as able to provide the most innovative activities within the service sector, almost similarly to high-tech manufacturing activities.

KIBS are non-material firms providing intangible and highly personalized services (Cohen and Levinthal, 1989):

- They act as external sources of knowledge to their clients
- They are independent creators of innovation
- The majority of firms are micro and medium sized young firms
- They store knowledge and experiences, are flexible to cooperate – coming up with innovative outputs

Much has been written about the KIBS role as a facilitator, carrying and being a source of innovation (Bilderbeek and Hertog, 1998a; Bilderbeek *et al* 1998; OCDE, 2006). The reason is that they may combine with the traditional knowledge structure, formed by universities and public research centres, or act as "bridges to innovation" (Czarnitzki and Spielkamp, 2000), easing the knowledge flow among organizations by means of multiple interactions, even with competitors. As an example, KIBS would facilitate innovations in clients by helping to adopt solutions previously developed in other sectors or firms (i.e. any software solution).

Finally, KIBS are also important innovation performers, depending to a great extent on professional knowledge (related to specific technical fields) and providing, at the same time, intermediate products and services that are knowledge based (Miles et al., 1995). Computer services, R&D as well as different type of consultancy services (technical, legal, etc.) are among the most representative activities (González-López, 2006).

**Table 1 – Conceptual contributions for KIBS**

Phases	Years	Authors	Theoretical framing
	1960	Fuchs, 1968	
Omission	1970	Bell, 1973 Levitt, 1976 Abernathy, 1978	
	1980	Pavitt, 1984 Belleflamme et al., 1986 Barras, 1986	<i>Resource and Capacity Theory</i> Cohen and Levinthal, 1989
Assimilation	1990	Barras, 1990 Gallouj, 1994	<i>Industrial District Theory</i> Becattini, 1990 Sengenberger and Pyke, 1992 <i>Cluster Theory</i> Porter, 1990 Porter and Stern, 2001
	1995	Gadrey et al., 1995 Miles et al., 1995 Gallouj and Weinstein, 1997	
	1998	Gallouj, 1998 Sundbo and Gallouj, 1998 Bilderbeek, 1998	
Differentiation	2000	Evangelista, 2000 Uchupalanan, 2000 Sundbo and Gallouj, 2001	
	2001	Miozzo and Soet, 2001 Freeman and Louça, 2001 Gallouj, 2002	
	2004	Drejer, 2004 Huergo and Jamandreu, 2004 Becker and Dietz, 2004	
Synthesis	2005	Tether, 2005 Nieto and Santamaria, 2005 Miles, 2005 Camacho and Rodriguez, 2005	<i>Systemic Theory</i> Edquist, 2005
	2006	Cainelli et al., 2006 Evangelista, 2006 Vries, 2006	
	2009		<i>Network Theory</i> Ozman, 2009

Source: Fernandes et al, 2011

Notwithstanding the major role of KIBS in the innovation process of their clients, it is not yet quite clear how KIBS organizations perform innovation in their own products. Still, there is a consensus that, differently from manufacturing, innovativeness or creative ideas may, in such cases, extend right through the all service organizations being carried out by individual employees (Sundbo 1996) who are quite self-ruling in the KIBS environment (Alvesson, 2004, Morris and Empson 1998). Often these same employees, also in charge of development, production and marketing, are strongly client-oriented (Alvesson 2004). If innovation is due to happen in such circumstances, it can be anticipated that most of them will happen outside formal activities as “unintended innovations” (see Toivonen and Tuominen 2006, Gallouj 2002a and b) – possibly even as a result of tailor-made solutions for clients. These characteristics of the KIBS environment justify the hypothesis that



theoretical approaches developed for manufacturing contexts are not directly applicable to KIBS (Tuominen and Toivonen, 2007).

In the last forty years and quite connected to the evolution in the concept of innovation, the interest in knowledge-intensive business services is taking form, clearly emerging as such from the mid-1990s. As can be observed in Table 1, many contributions of recognized authors have directly or indirectly tackled the issue of business services (Fernandes et al, 2011).

In a first phase, called of omission, innovation was associated to technological materials and equipment so that the support to innovativeness, accomplished by means of instruments related to R&D and patents, was the more accepted way to evaluate outcomes. In this case, KIBS were not understood as contributors to innovation or to the growth process as such, due to the fact that emphasis was put on measuring the outcomes of innovation, and it was not possible to identify the links between these and the innovative process.

A few years later, during the so called assimilation phase, researchers of innovation started focusing their attention on the innovative process in a broader concept, including the transformation sector as being responsible for process innovation, and a strong effort was made to identify all the specific determinants able to push innovation further.

Both Barras, 1986, who had focused on Theory of Reverse Product Cycle (RPC) and Information Technology (IT) for innovations in services, and Gershuny, 1983, accepted the view that services were largely non innovators, although the information technology could significantly improve the costs and quality of services. Gallouj and Weinstein, 1997, also emphasized the interactive character of services. These were contributions to the advance of the “assimilation” phase and the acceptance that innovation in services was fundamentally similar to that of the industry.

The start of a “differentiation phase” resulted from the observation that services are distinct from the transformation sector, demanding new analytical approaches: theoretical and empirical research observing the impact of technology on services and trying to adapt new classifications able to reflect it. As such, the most consistent criticism to the RPC came from Uchupalanan (2000): RPC considered just one source of innovation (IT), presenting a dichotomy between product and process with firms performing as passive recipients of innovation of IT suppliers.

The classification provided by Miozzo and Soete, 2001, was an important contribution to characterize service firms in different categories towards a synthetic approach:

- Sectors dominated by suppliers, like education and personal services. These firms give only limited contributions to the technological process and most of the innovations come from the suppliers of equipment, materials and information;
- Sectors of scale intensive physical networks or information networks, like gas supply and banks. Technological innovations usually originate in the industry, but the nature of these innovations is strongly determined by their use in the service firms;
- Sectors that supply specialized technologies based on science, like software and laboratories. The main sources of technology are research, development and software activities of the firms of the sector.

Soon, it was obvious how a single approach was inadequate to explain innovation in the services sector, therefore requiring an integrative theoretical view to advance to new conclusions.

The approach of “synthesis” defends that innovation in services and in industry do not follow totally different paths. Conceptual achievements for the understanding of innovation, both in industry and in services, could be of mutual interest. The integration of a mutual view of this concept materialized in the last version of the Oslo Manual: “the scope of

what is considered to be an innovation has now been expanded to include two new types: marketing and organizational innovation” (OECD, 2005, p. 3).

Also, as a consequence of the evolution of this conceptual outline, the current definition of KIBS is recognized by industrial classification and includes the following disaggregated subsectors:

- 721 Hardware consultancy
- 722 Software consultancy
- 723 Data processing
- 724 Data base activities
- 725 Maintenance and repair of office, accounting and computing equipment
- 729 Other computer related activities
- 731 Research and development
- 732 Research and experimental development on social sciences and humanities
- 741 Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy
- 742 Architectural, engineering and other technical activities
- 743 Advertising
- 749 Business activities (other)

### **3. FIRST EMPIRICAL EVIDENCE: CASE STUDIES ACROSS THE WORLD**

The following chapter presents a series of empirical studies developed by several authors. The experiences of Spain, Finland, Brazil, Canada, Italy and Portugal permit adding a cross country comparative analysis, identifying bottlenecks and common outlines in the active responsibility KIBS may achieve in innovation systems or innovative contexts.

#### **Spain (2006)**

The selected Spanish case was described by González-López, 2006. In order to carry out the analysis, the author used microdata provided by the Technological Innovation Panel (PITEC), also used for the Community Innovation Survey in Spain. The information regards the years 2003 and 2004, and the observation panel contains information for 7,283 firms in 2003 and 8,720 in 2004. The considered KIBS branches used were the following:

- Software (NACE 722)
- Other computer activities (NACE 72 apart from 722)
- Research and Development (NACE 73)
- Architectural and engineering activities and related technical consultancy (NACE 742)

The addressed research question was the following: How do consultants, laboratories and private institutes perform as sources for innovation?

The conclusion was clarifying:

- 53% of the SIS firms used KIBS as an information source for innovation;
- Only 17.6% of them considered it as very important;
- KIBS were more widely used than other institutional sources like universities (44.3%) or technological centers (42.3%);
- Universities were considered as “very important” by a higher share of users (21.5%) compared to the KIBS case (17.6%);
- Moreover, internal sources are the ones more widely used followed by equipment providers and clients. Additionally, the former ones are considered as very important by a large share of users (35%).

### **Finland (2007)**

The selected Finnish case was described by Tuominen and Toivonen, 2007. The study was conducted by using a reduced empirical data set, consisting of 31 interviews in three KIBS firms. These firms are an architectural office, an accounting office and an engineering consultancy firm, all employing 100-300 persons. Two of the firms are a part of a larger corporation. All of these firms conduct project-based business, and their organization structures are also quite similar.

The addressed research question was the following: How does the innovation process in KIBS manifests?

The conclusion was insipient but quite inspiring:

- Frequently, the development of activities moved very quickly from individual considerations to collective actions;
- There is an iterative, inseparable nature of different types of behaviors;
- These are not analogous in the different phases of an innovative process;
- Each phase of the process contains many, if not all, of these behaviors in different combinations.

### **Brazil (2007)**

The selected Brazilian case was described by Kubota, 2007. The study used micro data of the Survey of the Economic Activity in São Paulo (Paep) 2001, of Fundação Sistema Estadual de Análise de Dados (SEADE).

The addressed research question was the following: Do KIBS contribute to technological innovation of product and/or process of their clients?

The conclusion was partial:

- Years of study, sector and the size of the firm contribute positively to the propensity to innovate;
- All sectors are more innovative than “other services”;
- Particularly, when related to legal/internet solutions, business communications, advertising and management consulting show that service firms that contract KIBS are not more innovative that those that do not.

### **Canada (2010)**

The selected Canadian case was described by Doloreux et al, 2010, using a sample of 102 regions in Quebec from which 62 are rural (no municipality of over 10,000) and 42 are urban (municipality of over 10,000). Factor analyses, Cluster analyses and logistic regression are applied in order to answer several different questions.

For our discussion, the major research question addressed was the following: Does innovation in KIBS services vary according to the industrial context within which they are located?

The conclusion was very interesting but complementary to the previous case study and claiming for further research:

- Innovation in KIBS varies both across continuous space and across discrete territories;
- However, this is not affected by firms' information gathering and collaborative behaviors;
- Since these factors have no effect, we face limits in the understanding of the geography of innovation which call for further exploration.

### **Italy (2011)**

The selected Italian case was described by Corrocher et al, 2011. The study was conducted in the region of Lombardy to a sample of 441 KIBS firms. The sample was stratified by size

and geographical area, and three sectors have been observed: computing services, research and development and other professional activities such as engineering offices and consulting services, such as architect, engineering and technical offices and law, market research and consulting, as well as other activities.

The addressed research question was the following: What are KIBS' competitive strategies?

The conclusion was expectable but still very useful:

- Innovativeness mainly embodied technological change, and the quality of services are the most relevant, competitive drivers;
- Severe local competition based on price; speed of delivery and proximity to customers also represent crucial variables;
- Human resource training but with a tendency for lack of attention towards new competences and more creative profiles.

### **Portugal (2011)**

The selected Portuguese case was described by Fernandes et al, 2011. The analytical methodology was applied to a total of 93 firms, considered peripheral KIBS, and extended to a group of 407 KIBS urban in nature and, hence, firms located in urban councils with populations in excess of 5,000 inhabitants. Factor analysis has been applied to this sample in order to be able to reply to the following research question:

Which factors contribute towards innovation capacities in KIBS? And does the structure of a predefined measurement model remain constant for different groups or populations with different characteristics?

The conclusion was also expectable and common to the case of innovation in any other sector of the economic activity. No, the structure does not remain constant, and the most significant set of factors is:

- The communication between departments, rewards innovative initiatives;
- Cooperation with other firms, relationship with users of new products or services, learning, projects revision or the sharing of experiences with other firms;
- At the process level, support mechanisms for managing new products and searching for new ideas;
- Good strategic decisions are made when the company attempts to anticipate threats and opportunities and shows commitment to innovation.

Given the different methodical approaches used and the diversity of the presented questions by the authors, a standard, cross country comparative analysis is not possible. However, a first conclusion is that there are no opposing opinions, and some of the conclusions are common or complementary.

Adding up several results, it is possible to confirm that KIBS work out as innovation drivers although not many consider them as very important ones. For the Brazilian case, which is strongly related to small firms acting in peripheral environments, the role of KIBS to promote innovation is proven. In our view, this situation justifies the arguments to be presented in the next chapter which focus on the role of KIBS depending on the readiness of the other firms, their clients, to innovate.

Moreover, due to the irregularity of the innovation process, KIBS are able to provide flexible solutions which are useful. However, the happening of innovation within KIBS firms has not been clearly explained. This does not seem to happen as a regular and common process; when innovation happens, it is generated as an internal procedure that results from targeted choices of the company.

In brief, innovation does not necessarily have to occur for the success of KIBS, and if it takes place, it is because the company has an intended innovative behavior, like in any other service or industrial sector.

Frequently, innovative behaviors occur as a consequence of both managers and employees within a firm – an issue which is better explained in the context of social or organizational psychology. So, from a wider angle, innovation is ‘the intentional introduction and application within a role, group, or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, organization or wider society’ (West and Farr, 1989 and 1990).

#### **4. SECOND EMPIRICAL EVIDENCE: RESTRICTIONS FOR PERIPHERIES**

A further contribution to the present discussion is to explore the nuances of innovative behavior at the level of the KIBS firms, considered as stockholders, actors within specific environments. Aware of such specificities, these firms can become the edge of the divergence between peripheral, gapping regions and more developed, growing ones.

Wood, 2009, explained that KIBS services are frequently delivered at local scales, although they require national and international knowledge and expertise. The author explains how positive this is for central areas and cities, where KIBS join the already dynamic, corporate activities.

But, in cases where KIBS are located in peripheral areas, there are questions about their role and how far they can act towards innovative processes:

- Do they perform differently when located in peripheral environments?
- Are they exposed to firms equally prompt to cooperate, share information, network and learn?
- How flexible are such firms to constantly learn new skills or absorb the different kinds of innovation?
- Does this reduce the activities of KIBS or, rather, expand their responsibility in the process?

In order to investigate how the innovative behavior takes place in the KIBS context, a view of knowledge intensive services and the nature of their activities is welcome (de Jong et al., 2003) but not sufficient. Doloreux, 2010, confirms the view that such behavior is also geographically determined and quite distinct if the firms are located in peripheral, gapping areas. Although most of the literature has proven that innovation in peripheral regions results in the lack of critical mass, density of players and relationships, strategic choices may be frequently taken in order to surpass such bottlenecks.

One of the vertices towards which technical change, innovation and knowledge converge is the organization’s capacity to learn. Although intangible, such major drivers can be related to factors internal or external to the firm, particularly if human capital can serve to perceive the nature of such learning capacity. In this study the organization’s capacity to learn will be detected by variables such as the multiple characteristics of the top managers, skills and training for the workforce or other aspects such as interactions with suppliers, customers, industry associations and public support bodies. All these aspects determine firms’ capacity to innovate and shape several typical, entrepreneurial behaviors particularly worth investigating when the firms locate in peripheral environments.

### **Innovation as bilateral interdependencies between small firms and their environments**

In 2003, a major European project<sup>1</sup> was conducted with the goal to investigate how a set of 323 agro food firms located in 12 different European peripheral regions were performing towards innovation (Noronha Vaz, 2004). Clustering techniques based on variables related to the history of the firm, sources of capital and governmental support characterised three groups of firms as non-innovators, innovators and followers. Their choices concerning firm leadership, skills of the labour force and interaction with other stakeholders have been studied and compared. A very important contribution from that project to the understanding of innovation was to specify how firms learn for the innovation process, generating the so called behavior patterns for innovation.

This useful example highlights the learning process of firms in general, when located in peripheral regions. The lessons can also help us to perceive the potential role of KIBS for regional development.

**Table 2 – Territorial systems by NUTS level, designation and size**

		Nuts level	Terminology	Size km <sup>2</sup>
1	Alentejo Central (P)	Nuts III	Region	7,228
2	Aude (F)	Nuts III	Departments	6,139
3	Northern Border (Irl)*	Nuts III	Region	12,341
4	Cremona (I)	Nuts III	Province	1,770
5	Devon and Cornwall (UK)	Nuts II	Group of counties	10,262
6	Gard (F)	Nuts III	Department	5,853
7	Hainaut (B)	Nuts II	Province	3,785
8	Hereford and Worcester (UK)**	Nuts II	Group of counties	3,923
9	Kuzawsko-Pomorskie (Poland)	n.a.	Province	20,099
10	Piacenza (I)	Nuts III	Province	2,589
11	Oeste (P)	Nuts III	Region	2,512
12	South West (Irl)	Nuts III	Region	12,306
13	West Flanders (B)	Nuts II	Province	3,134

Source: National statistics in Noronha Vaz, 2005

\*Only a part of the Nuts III region has been selected

\*\*Nuts II region includes the county of Warwickshire. However, in this research, Warwickshire is excluded for the sake of homogeneity.

The study followed some basic criteria in the choice of the areas to be observed (Table 2 shows the regional provenience of the investigated firms), as Morgan and Crawford (2004) noted that they all should be:

- Administratively discrete: It was important to identify territories for which official economic data could be collected and, as far as possible, that the territories were at a similar level in the different areas;
- Lagging: This was defined both economically and geographically. These were areas that had lower levels of economic development than the national average. From a geographical standpoint, there was particular interest in more remote areas where levels of communications infrastructure also compared unfavourably with other, more developed regions;

<sup>1</sup> INNOVALOC, granted by the EC, program Socio Economic Knowledge Base, 2000-2003

- **Peripheral:** The study focused on rural development and the place of the food industry within it, so it was important that the chosen areas were those in which agriculture played an important role. Territories dominated by large, urban populations were generally to be avoided. The final questionnaire received 323 validated replies from small firms selected for sampling.

The application of K-mean cluster analysis to the set of 323 firms resulted in three distinct groups, each one representing a different behavioral pattern towards innovation.

Table 3 supplies, for each group, the values of the key identification variables that meaningfully measure the level and type of innovativeness. Note that, for analytical purposes, the value 1 indicates Yes (the referred cluster performs that type of innovation) and value 0 indicates No (the referred cluster does not perform that type of innovation). Also, the variables considered are directly connected to the types of innovation discussed in the previous theoretical session: Product innovation, process innovation, organizational innovation and marketing innovation.

Cluster 1 is composed of 86 firms and is mainly characterised by a lack of innovation. Those firms belonging to the group only performed organizational changes inside their units. They are located essentially in the Portuguese regions Alentejo Central (19%) and Oeste (12%), the Belgium region of West Flanders (14%) and the Irish regions of South West (13%) and Border (11%). Please see Annex 1 for detailed information on the percentages of the other regions. They will be labelled as the *Non-Innovators*.

Cluster 2 is composed of 160 firms, representing the higher innovative level. The firms included in this group perform all the types of innovation listed previously. As their innovative initiatives are also new to the market, they will be labeled as *Pioneers*. Firms belonging to this cluster are mainly coming from The British areas of Devon/Cornwall (17%) and Hereford/Worcester (16%) and the Polish region Kuzawsko-Pomorska (15%).

**Table 3 – Patterns of innovation, results from K-mean cluster analysis**

	<b>Cluster 1: Non- Innovators</b>	<b>Cluster 2: Pioneer Innovators</b>	<b>Cluster 3: Follower Innovators</b>
<b>Variables of innovation</b>	N= 86	N= 160	N= 77
Product innovation: New or substantially modified products	0	1	1
Process innovation: New or substantially modified production processes	0	1	1
Process innovation: New ingredients	0	1	1
Marketing innovation: New packaging material	0	1	0
Marketing innovation: Visual appearance	0	1	1
Organizational innovation	1	1	1
Newness of innovation	0	1	0

Source: Noronha Vaz, 2005

Cluster 3 is composed of 77 firms and distinguishes from the other two due to two factors: the high level of innovation performed in the firms but, contrarily to the previous

case, innovation developed is not new to the market. This is the reason why the group has been labelled as *Followers*. This cluster is mainly composed of the French regions of Aude (27%) and Gard (14%).

The research clearly indicates a negative correspondence between the firm age and its aptitude to innovate. *Innovators* registered the lower weight of firms with more than 10 years. Only in this group, were new firms with less than 5 years found. *Non innovators* are greatly composed of aged firms.

All of the 3 groups mainly chose the option *Personal or family idea* when asked about the main sources of the original business idea. The same happened with the business location, with personal or family reasons predominating homogeneously. Considering that we are dealing with very small firms, such choices based on familiar roots were to be expected.

Retained earnings were the primarily used source of capital for the 3 groups. This source was followed by bank loans, particularly in the case of *Innovators* (70% of firms in this group used this source). *Followers* were the ones that most often asked for governmental support and subsidies (29% versus 14% from non-innovators and 10% from pioneers).

Regarding the used sources for innovative activities, and excluding the *Non-innovators*, we can find some slight differences between the two clusters performing innovation.

Regarding process innovation, in-house developments were the main starting point for both groups (58% of firms with affirmative answers in pioneers versus 62% in followers). Equipment and services suppliers were indicated as the following main source of process innovation (35% for *Innovators* and 34% for *Followers*). Therefore, *Innovators* have a higher proportion of contacts abroad compared to *Followers*.

Also, customers have a similar effect, yet with less importance than the previous. For the *Followers*, more important than customers were similar firms (29% of firms in this group used this source), a natural source for *imitators*.

Regarding product innovation, in house developments were once again the main source used (83% affirmative answers by *Innovators* and 62% by *Followers*). However, contrary to what was stated before, when developing new products, firms also use customers as an important source (57% by *Innovators* and 51% by *Followers*) as they function as drivers for innovation due to market pressure.

As presented, the main conclusion for our discussion is that, in peripheral areas, process innovation depends mostly on the level of in-house developments and equipment and services suppliers – *Innovators* having a higher propensity to explore contacts abroad. Thus, the major need for learning in the case of these firms is accentuated when they are located within peripheral environments, due to the fact that their innovation drivers or sources are less diversified. The results quantitatively confirm most of the literature related to knowledge management and the importance of learning for the organizations. It seems the situation gets sharper in peripheral environments –leadership and labor forces are not provided with the best tools to improve learning capacity.

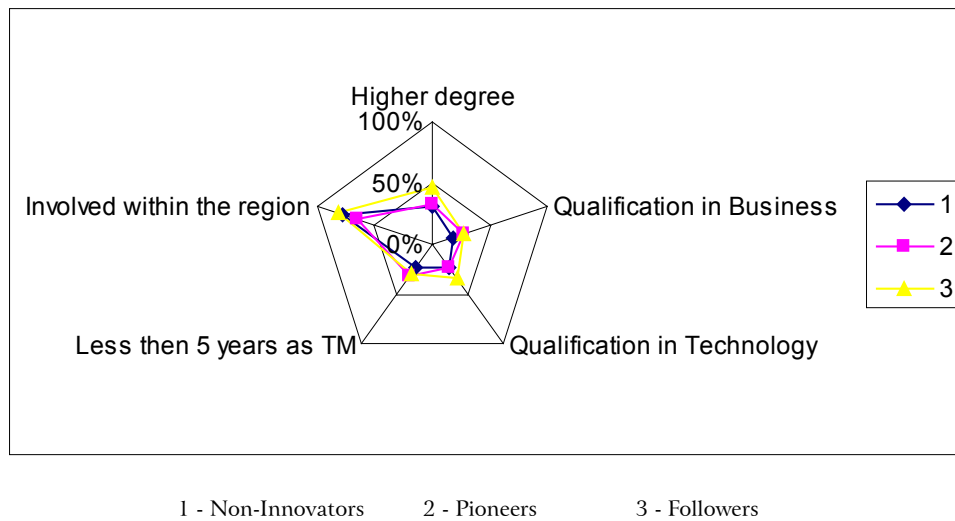
### **The organization's capacity to learn in the behavioral patterns of small firms**

In order to be able to better identify the importance of specific assets related to human capital, we have observed in detail some of the attributes of the three clusters: characteristics of the top manager (TM), skills of the labour force and interactions with other agents internal or external to the region. Below, the results report (as earlier) only those firms located in the peripheries.

Figure 1 presents the relative perceptual heights of the different attributes that characterize TMs. The comparative graph identifies the three groups of firms, concluding about those characteristics that are more distant from the innovative behaviour that, in this case, they are very few and quite tenuous.



Figure 1 – Characteristics of the TM



In spite of the fact that *Followers* do have a higher number of TM with higher education, this attribute does not seem to be much of a determining one in what concerns different attitudes between *Innovators* and *Non innovators*. In any case, many firms still do not have TM with higher education. In those cases when it exists, around 25% is formation in business or economics and 27% in technology or engineering.

The *Non-innovators* and *Followers* tend to hire more TMs in the technological areas. *Innovators* and *Followers* have more TMs that are recent in their position (less than five years). Another attribute that we have analyzed is the involvement of the TM to the region. It was very curious to observe that *Innovators* do not look for TM with regional involvement or provenience, but rather on the contrary. This is not the case for the *Followers*, which have the highest percentage of TMs with regional links of the three groups.

Figure 2 – Skills of the labor force

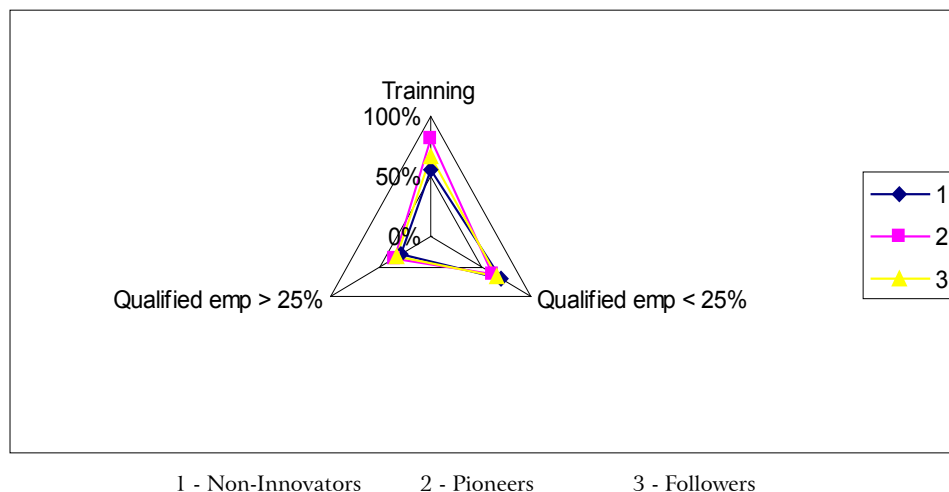
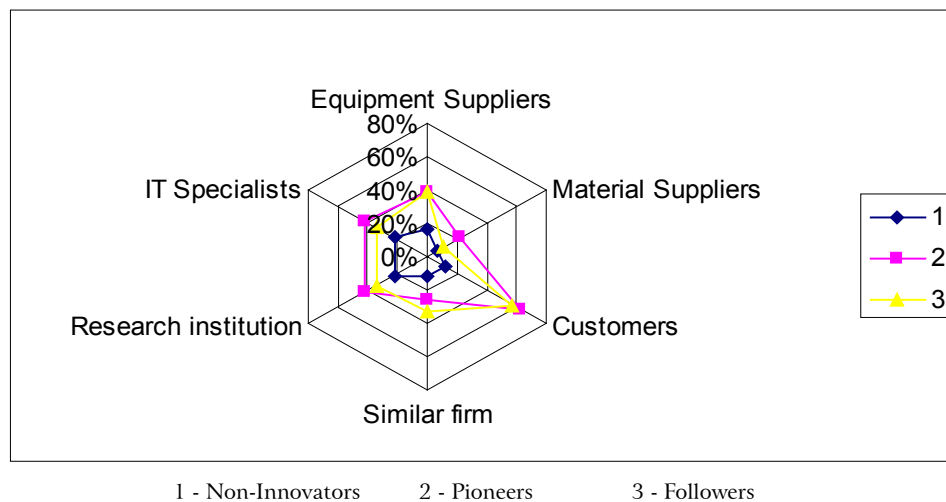


Figure 2 represents the perceptual heights of those attributes determining the degree of formation of the labor force in the observed firms. Training carried out by the firms as well as qualified technical formation of labour were the selected items. The number of firms having fewer than 25% of its employees with technical qualification is very high in all three groups of firms, and it is clear that innovators have more trained personnel than the other

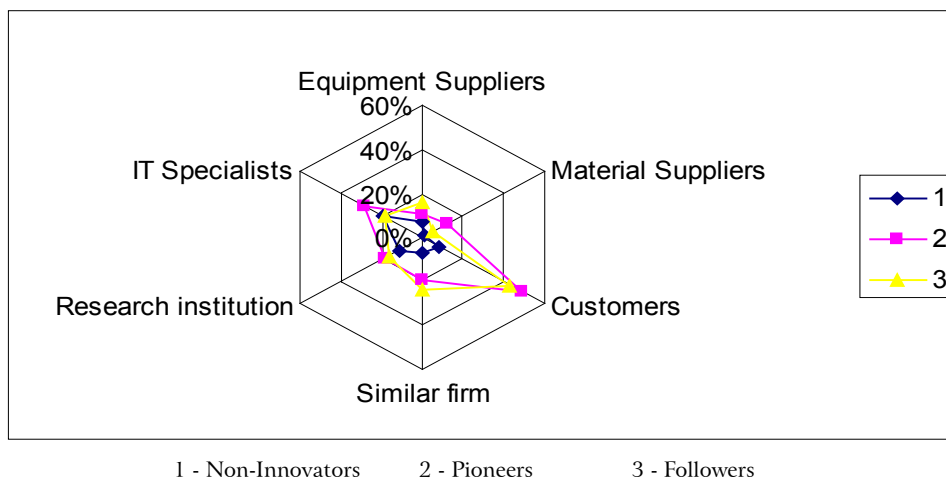
groups. Training is an attribute that serves better than technical qualification to distinguish the behavioral patterns. There is a clear predominance of firms that have carried out training (81%) in the group of Innovators compared to the Non-innovators or even the Followers (55% and 68%).

Figure 3 and Figure 4 help to perceive the role of the environment in the firms' strategic attitude, as well as help to identify their openness to cooperate with KIBS towards innovation. If we compare the distance among the lines related to each group, we realize that the interactions with other agents do represent determinants with a much higher level of significance to innovation than the previous two groups of attributes.

**Figure 3 – Interactions with other agents internal to the region**



**Figure 4 – Interactions with other agents external to the region**



## 5. CONCLUSION

From a macro economic and social dimension, there are many challenges to firms located in peripheral areas that choose to innovate. Most hindrances are related to the small market opportunities and/or low population density, but there are also other constraints related

to the lack of technological opportunities and loose networking systems that can justify it (Doloreux, 2010). Certainly, for knowledge creation, deficient knowledge-intensive clusters or lack of technological complementarities with other sectors obstruct the creation of positive externalities such as agglomeration economies or other kinds of economic advantages. However, studies have proven that, in spite of such restrictive environments, some small and medium sized firms are able to progress, innovate and become competitive, including at the international level. Much depends on their absorptive capacity to learn and on their strategic choices to innovate. In general, such firms are small sized, facilitating the strategic decision of the top managers and easing improvements in the quality of the labor force. This study showed that, across the world, KIBS are acting irregularly as innovation drivers, although they could provide such function easily if their clients would defy them to act in such a direction. In peripheral regions, for example, most of innovations' inputs are obtained from internal sources – not surprising, since the external relations are, in general, distant and loose. Should KIBS tighten up links with their clients, such firms could modify this phenomenon. In addition, the level of qualification of both top managers and human resources is low, demanding upgrading and more support for success cases. This could be understood as an additional role for KIBS, accepting such firms as eventual providers of incremental and process innovation.

From the micro economic point of view, the readiness to innovate of an individual firm is related to factors such as: formation of the leadership or labour skills, coordination with suppliers and clients and, mostly, respective costs. Relationships with research institutions or other external connections are also stressed by tight profit margins. This is why new customers or demanding client requirements (imposing quality standards or the promotion of regional products in connection with chambers of commerce, for example) also increase the number of innovative actions taken by the small firms. KIBS, as permanent partners of such firms and ahead in terms of knowledge, should be called to give their own contribution to firms' better performance, innovation and regional growth, sharing a symbiotic set of pulling and pushing forces for innovation and change at the firm level.

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## AUTORES

Amiram Porath  
Esperanza Begoña García Navarro  
João Pinto Guerreiro  
João Romão  
Paulo M. M. Rodrigues  
Teresa de Noronha



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