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TOURISM INNOVATIONS AND COMPETITIVENESS IN TIMES OF CRISIS

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ABSTRACT

In the current economic crisis, nations try to identify those sectors that can best help them find the path back to growth. Spain hopes that tourism will play this role. The problem is that the industry has been losing competitiveness over the last few years as a result of the structural problems arising from mass, low-cost tourism. Innovation seems to be the only way out of this morass and of improving competitiveness and leading the country out of recession.

This paper looks at the relationship between innovation and competitiveness by identifying the nature and degree of innovation applied by Spanish firms in the tourism sector. This fieldwork found ten dimensions of innovation. Analysis of these revealed that Spanish companies tend to see innovation in a reactive way (cost-cutting, staff cuts, greater management and process control) rather than in an active fashion (creating products, re-engineering the business model, internationalisation).

Thus the study makes both academic and practical contributions. On the one hand, the empirical work allows in the management field of the various tourism sub-sectors relating innovation with competitiveness — in which the former is vital for the latter (Larios, 1999; Porter, 1990). On the other hand, given the difficulties for companies in general and tourism firms in particular in articulating an innovation policy, the findings yield innovation models that could be applied to other Spanish and European companies.

KEYWORDS

Tourism Innovation; Holistic Innovation on Management; Tourism Innovation Management; Innovation and Productivity; Innovation and Tourism Competitiveness.

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1. INTRODUCTION

In the current crisis, countries are turning their gaze to the sectors most likely to get them back on the growth path. In Spain, tourism seems the best bet given that: (1) tourism has turned holiday spending into a prime need, given that it is one of the last things to be cut during a recession and the first to bounce back after one; (2) the sector is cross-cutting, so that tourism and leisure spending has an immediate impact on other business activities; (3) the target consumers are both domestic and international and complement one another; (4) it has a highly-fragmented structure and the SMEs in this market are less prone to lay off workers and to suffer the impact of the crisis than other sectors.

However, the low productivity of the Spanish sector, especially in the Sun and Beach market as a result of the country's over-specialisation in this kind of cheap, mass tourism, makes it hard for the industry to lead the nation out of the crisis. The fact that the public sector no longer has money for developing tourism means the only way of raising productivity is by internally-generated innovation in companies themselves. Despite the relative health of the Spanish tourism GDP compared to the economy overall, at an estimated 12% (Exceltur, 2012), the Spanish tourist industry's actual investment in R&D&I is low compared to other sectors, and has dropped since the financial crisis began (OECD, 2010). Spanish businesspeople are aware of the importance of innovation, but find it difficult to manage their companies' research policies, particularly in these difficult times, as well as feeling that they are not fully supported by their organisations or by public administrations (Valls, Ferrer, Casola and Parera, 2011).

In the context of a search for ways out of the crisis, this paper focuses on the relationship between innovation and productivity based on the dimensions of innovation found in business management of Spanish tourism firms. Specifically, the focus is on a sub-sector -hotels, transport, intermediation, leisure and similar- and on firm size. Greater productivity in these areas may help Spain end the crisis.

To establish dimensions, we followed the approach pioneered by Hall, 2011; Hamel, 2009; Drucker, 2002; Pavón and Hidalgo, 1997, Someshwar, 2001; and Pro Inno Europe, 2011. Based on this literature, and on subsequent processing

completed, ten key dimensions have been identified: Staff Management; Incorporation of Technology; Portfolio Improvements; Internationalisation; Cost-Cutting; Improved Management Control; Process Improvements; Outsourcing; Supply Chain Management; Business Model.

Once the dimensions of innovation have been defined, we aim to learn which of these are used by Spanish tourism firms and what combinations enable them to best approach the competitive scenario, which is much tougher on account of the economic crisis. The results of analysis of the strategies developed inside the tourism firms will greatly facilitate an understanding of the phenomenon of innovation, and they will provide excellent benchmarking opportunities for both tourism firms and general service companies in Spain and Europe.

2. HYPOTHESES, OBJECTIVES AND METHODOLOGY

Hypotheses

Our approach was based on testing the following three hypotheses:

H1) Innovation is presented as the only way to improve competitiveness and to overcome the current crisis.

H2) Leadership in overcoming the crisis in Spain's tourism industry depends on the ability of Spanish companies to implement certain kinds of innovations and to approach these holistically within organisations.

H3) In the tourism field, innovation is linked to new contents, such as the ability to shape consumer experience by managing brand intangibles, sustainability, partnership with clients and society, making internal and external organisational aspects more flexible. This link helps establish clusters of highly differentiated firms.

Objectives

Based on these three hypotheses, the paper sets out to: (1) analyse the kinds of innovation encouraged by Spanish tourism companies; (2) deduce the improvements to competitiveness that would allow these firms to face the current crisis and be the

first sector to emerge from it. Another objective is establish whether the innovations undertaken by Spanish tourism firms are linked to any of the following: (1) the ability to forge customer experience; management of the intangible aspects of brands; (2) sustainability; (3) partnership with clients and society; (4) both internal and external organisational flexibility. The idea is to identify clusters of tourism companies with precise, differentiating features. Other companies could then use these features to improve competitiveness and to lead the way out of the crisis.

Methodology

To test these hypotheses and attain these objectives, we proposed identification of the innovation dimensions found in Spanish tourism companies. To this end we:

- Compiled an open list of business management dimensions based on the literature on the subject (Hall, 2011; Hamel, 2009; Drucker, 2002; Pavón and Hidalgo, 1997, Someshwar, 2001). We also took into account the dimensions identified by the IUS in connection with national innovation (Pro Inno Europe, 2011). The IUS identifies eight dimensions that lead innovation: human resources; research systems; finance and support; firm investments; linkages and entrepreneurship; intellectual assets; innovators; economic effect.
- The resulting list was tailored to the tourism company management field thus: Staff; Technology and ICT; Marketing and Markets; Finances, Costs and Business Management; Operations and Processes; Expansion; General Strategy.
- Ten key dimensions were chosen based on this initial list and after three meetings with the focus group of experts and company directors. These dimensions were: Staff Management; Incorporation of Technology; Portfolio Improvements; Internationalisation; Cost-Cutting; Improved Management Control; Process Improvements; Outsourcing; Supply Chain Management; Business Model.
- A questionnaire was drafted and tested between the 16th and 21st of April and the final version sent to survey recipients a month later. The test covered a small group (12 company directors, two from each sub-sector). Feedback from the test led to two improvements to the questionnaire: the first focused more closely on the link between innovation and productivity; the second

differentiated between firms in terms of turnover (those of under €500,000 a year; those between €500,000 and €3 m, and those of over €3 m a year).

- A questionnaire was prepared and sent out by email to a representative sample of hotels, restaurants, transport, intermediaries, leisure and associated area and other sectors; a total of 220 cases across Spain, distributed according to the relative importance of each tourism sub sector. The sampling error for the overall results was around 6.6% with a confidence level of 95.5% and $p=q=0.5$ (Table 1).
- The C.A.W.I. technique was used to capture responses from the online questionnaire.
- Finally, several variables were crossed with the aforementioned content.

Universe: Men and women working in tourism firms, with decision-making responsibility. The universe was made taking into account the ranking Hosteltur of Spanish tourism companies.	
Area of Operation: Spain.	
Field work: Pre-test, 20-25 April 2011. Final questionnaire was send on 11 th – 18 th May 2011	
Sampling Error: Sampling error with a maximum sampling error for the general data is approx. 6.6% with a confidence level of 95.5% and $p=q=0.5$	
Sample obtained: 220 cases. The sample was obtained randomly by holding representative shares according to sub sector as follows:	
Hotels	43%
Restaurants	22%
Intermediation	18%
Transport	7%
Leisure and associated	5%
Other	5%
Technique: CAWI. Self-administered computer assisted web interview.	

Table 1: Technical details
Source: Own elaboration

3. THE STATE OF THE ISSUE

There is little interest in innovation in Spain’s tourism industry, despite the fact that the country led the trend towards Sun and Beach holidays and is currently among the world’s top three nations in terms of tourist numbers and business volume. Spain led mass seaside tourism in The Mediterranean from the late 1950s onwards. Over the last fifty years, Spain’s tourism industry has been based on cheap, poorly-differentiated tourism. Since its beginnings, Spanish tourism has largely been supply-based, with tour operators pulling the strings. In most cases, hotels, restaurants, transport companies and wholesalers are dependent on tour operators giving them a

slice of the action. Although some innovations have been introduced in the urban tourism field, it is not so different in this respect from the seaside variant.

3.1 Innovation, competitiveness and the way out of the crisis

Innovation is a key element for achieving competitiveness—which is especially important during an economic crisis. At the moment, companies' ability to innovate is least affected: 77% of firms at the world level state that they wholly or somewhat agree with a change in culture, with firms reassessing current risks; 68%, state that there is a change in culture, with firms taking fewer risks; 67%, that there is a greater focus on process and incremental innovations (GE, 2012). Thus the crisis is far from cutting investment in innovation and indeed, should boost it. In the same survey, 92% of entrepreneurs strongly or somewhat agreed with the statement that innovation is the main lever for creating a more competitive economy in their country; 86%, that investing in innovation is probably the best way to create jobs in their country; and 85%, that innovation is the main lever for a greener economy in their country.

North American companies justify their business success less and less in terms of capital and labour, technical changes and R&D (Griliches, 1998). At the same time, innovation is taking the leading role as a source of growth (Hall, 2011). The explanation found for growth in work productivity (Crespi and Pianta, 2008) rests on the impact of innovation on demand and productivity, distinguishing between various mechanisms that are specific to different technology strategies. The preliminary general model explains the relationship between innovation, demand and productivity in all sectors, including total spending on innovation and development as a measure of the effort put into innovation. It also explains the importance of innovation effort in relation to production flexibility. The results of the first model reveal how the factors contributing to productivity growth are ones generating technological innovations in firms. In other words, they concern firms' internal practices and the quest to find more efficient, flexible production processes. Meanwhile, growth in consumption plays an important demand-pull effect on productivity.

The growth of productivity in European companies can be explained by a combination of technology factors and demand dynamics, confirming the complementary nature of technology push and demand-pull effects. With regard to the technology factor, productivity growth mechanisms are different in companies

oriented towards product innovations. This could be the case of many sub-sectors of the tourism industry and contrasts with sectors in which process-based innovation prevails. This evidence supports the idea that innovation may respond to two distinct strategies. One seeks technological competitiveness by generating knowledge, product innovation and expansion in new markets. The other seeks cost competitiveness, cutting out work processes, labour savings, greater flexibility in overheads, and restructuring of production (Crespi and Pinata, 2008). Finally, key differences among firms regarding growth in innovation-driven competitiveness arise from different patterns of technological change in companies. Some strategies are 'offensive' (knowledge, portfolio, business concept, internationalisation) and others 'defensive' (cost-cutting, axing staff, management control).

The rise in productivity in the sector is the aggregate of each firm's individual performance. The level of competitiveness in a market arises from: (a) its structure (concentration of companies); (b) dynamics among mature firms; (c) competitors and new entrants. One can define market dynamics as the trend in a company's market shares in a sector over a given period of time. Bearing these concepts firmly in mind, there is a high correlation between productivity growth by sectors and market dynamism. In highly-dynamic sectors (for example, mobile telecommunications, public services, employment agencies), there is a bigger correlation with productivity than in other sectors. The growth in productivity is much lower in sectors exhibiting less market dynamism (for example, pharmaceutical firms, R&D services, food and beverage retailing). The same applies in the Spanish tourism industry: market structure, the dynamics of mature firms, rivalry with competitors and investors show less dynamism, harming productivity. Moreover, the Spanish tourism industry has become less competitive as the crisis has worn on.

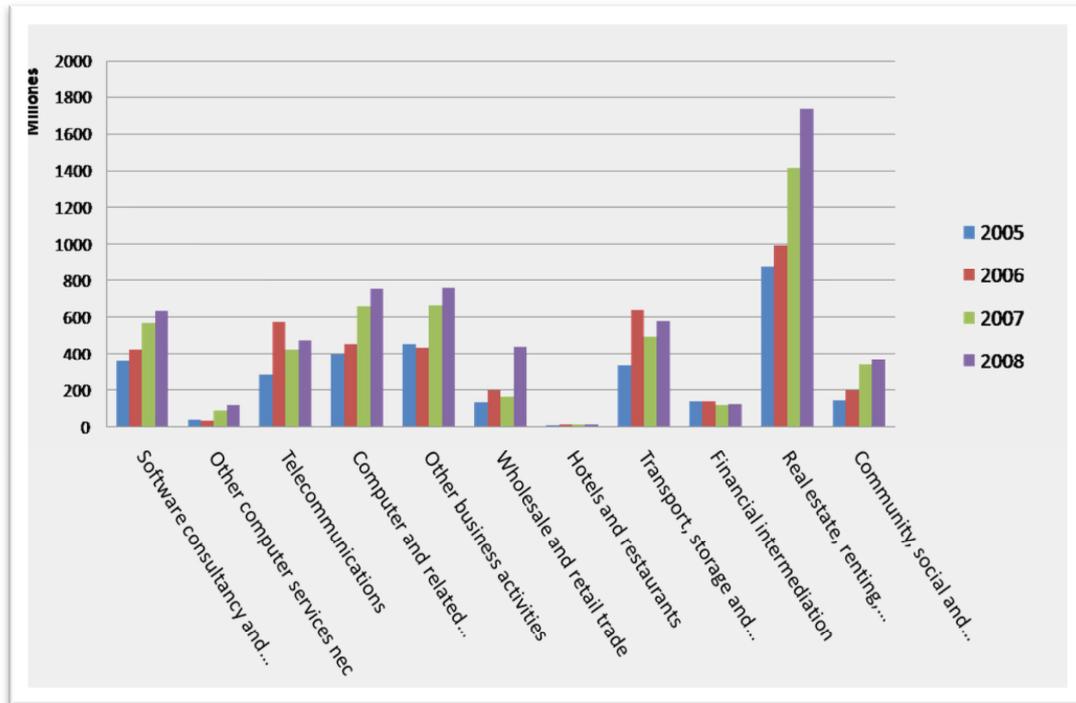
The appearance of new technologies cutting out intermediates led to the first attempts to innovate in Spanish tourism firms. This led to improvements in productivity but the economic crisis has now halted these timid efforts. Although there is a very deep-seated idea that this is the only way "leading to productivity improvement" (Somersshwar, 2001:12) and thus to improved competitiveness, the fact is that Spanish tourism is losing its competitive advantage: in 2011 it dropped to eighth place from sixth in 2008 on the WEF index (Blanche, Chiesa, 2011). Breaking

down the dimensions analysed in the index, the chief deficiencies in Spanish tourism turn out to be the following:

- Number 106 in price competitiveness.
- Number 85 in regulation.
- Number 46 in human capital.
- Number 36 in security.
- Number 35 in natural resources.
- Number 33 in environment and sustainability.
- Number 30 in ICT infrastructures.
- Number 29 in health and hygiene.

In these circumstances, it is very hard to get into the top positions in the rankings either of competitiveness, such as the one mentioned above, or of country brands (Country Brands Index, 2012).

Implementation of innovation in tourism companies in Spain is fairly scarce compared to the ratios of certain other economic activities. Firstly, it should be noted that Spanish R&D&I is far below that of other countries, illustrated by the fact that in 2008, according to the most current data, the USA, Japan and Germany invested around €200bn, €110bn and €50bn in it respectively, while Spain, ranked 12 in Europe, spent around €8bn; considerably less than other countries in the Eurozone (OECD, 2009). Similarly, in 2007, patents created by the USA, Germany and France numbered around 30,000, 23,000 and 8000 respectively. Spain created only around 1300 (OECD, 2008). Comparing Spanish investment in innovation with that in other activities in the service sector is equally disheartening. It manages to come 11th, trailing behind real estate and renting, telecommunications, software consultancy and supply, transport, storage and distribution and finance. In other words, it is at the tail end when it comes to investment (own development based on OECD, 2009) (Graph 1).



Graph 1: Spending on R&D+I in the Service Sector in Spain
 Source: Own development based on OECD database, 2009

3.2 The dimensions of innovation in the tourism industry and the need for a holistic vision

The innovation environment is seen as a kind of holistic container that encompasses the concept of business, client satisfaction and maintaining partnership relations with them and with society, attracting better talent, better technology and processes and other resources and finally achieving success through excellence. All this included as part of the company's corporate culture: "the elements that make up a truly innovative company are many: a focused innovation strategy, a winning overall business strategy, deep customer insight, great talent, and the right set of capabilities to achieve successful execution. More important than any of the individual elements, however, is the role played by corporate culture — the organization's self-sustaining patterns of behaving, feeling, thinking, and believing — in tying them all together" (Jaruzelski, Loher and Holman, 2011: 2). So it affects all areas of the company, and is based on new methods of production, in order to offer new products and services to the market. It is the driving force of economic development in our system, where new technologies take the place of old ones (Schumpeter, 1934). Innovation is not just a tool to be used at a particular moment

when the market demands it. It is about “the implementation of a new or significantly improved product (good or service), or process, a new marketing method or a new organisational method in business practices, workplace organisation or external relations” (OECD, 2005), meaning a change for the customer and for the company. Sustained maintenance at the time of these combined factors produces improved competitiveness in those companies that have incorporated the value of innovation into their corporate culture.

The same thing applies to the tourism sector: innovative thinking in these companies has to cover all areas. To do that, information systems and processes have to be established enough to encourage employees to become proactive and put it into practice, connecting them to the customer and to customer satisfaction in a kind of magic circle, a kind of self-management (Hamel, 2009). Thus the key to introducing innovation in a tourism firm lies in the chain-linked model. Decelle proposes that: research and knowledge be disseminated to the potential market so that it yields inventions and/or analytic design, re-design of production, distribution and marketing (Decelle, 2003).

Our study of innovation dimensions in this paper is based upon this holistic vision of business management in tourism firms. Our starting point is the literature on the subject (Hall, 2011; Hamel, 2009; Drucker, 2002; Pavón and Hidalgo, 1997; Someshwar, 2001). To this, we added the dimensions proposed by the IUS covering national innovation (Pro Inno Europe, 2011). There are eight dimensions in the IUS scheme: human resources; research systems; finance and support; firm investments; linkages & entrepreneurship; intellectual assets; innovators and economic effect. Drawing in this body of knowledge, we took into account the specific structural features of tourism companies (Necherel, Westlake, 2001; Goorochurn, Sugiyarto, 2004; Hjalager, 2002): Staff; Technologies and ICT; Marketing and Markets; Finance, Costs and Management Control; Operations and Processes; Expansion; General Strategy.

These reflections led us to draw up a list of ten dimensions of innovation in tourism companies that we considered key to this study:

- Management of staff: understood as the rationalisation of the workforce and pro-active management of talent.
- Incorporation of technology: understood as the use of ICT to innovate.

- Portfolio improvements: understood as the handling of products and the creation of new ones/scrapping of unproductive ones.
- Internationalisation: understood as expansion into other countries and markets.
- Cost-cutting: understood as the rationalisation of direct costs and cost pruning.
- Improvements in management control: understood as the efficiency of controls.
- Improvements in processes: understood as speed, flexibility and lower costs.
- Outsourcing: understood as alliances with other firms to manage processes that were formerly carried out in-house.
- Managing suppliers: understood as selecting the best suppliers and changing relations with them.
- Business concept: understood as the re-invention of a business model capable of taking immediate advantage of new market opportunities.

After analysing the ten dimensions, we placed these into one of the following three groups:

- Active, 'offensive' dimensions: portfolio; business concept; internationalisation. They are all based on a creative vision of the business and facing the crisis by seeking new business.
- Reactive, 'defensive' dimensions: controlling costs; controlling the workforce; controlling management. This is a conservative, reductionist vision of the business, scaling back to deal with the crisis and basically is a strategy based on wielding the axe.
- Instrumental: incorporation of technology and ICT; more flexible management of suppliers; process management and outsourcing of functions that do not form part of the core business. These instrumental dimensions are involved in co-operation and in both active and reactive dimensions.

3.3 New contents

Recently there have been a number of studies linking tourism with some specific innovation contents (CEHAT, 2009; SEGGITUR, 2011; ERNEST, 2009; Necstour,

2012; Calypso Social Tourism, 2010; Valls, Ferrer, Casola and Parera, 2011), such as:

- The ability to offer experiences is becoming core content for tourist destinations. It is this rather than any other attribute that is the basis of the tourist deal, and the one that scores highest in customer satisfaction regarding authenticity, sustainability, cultural exchange, reactions and feelings (Liang et al, 2009)
- Management of intangibles by generating value with brands is a growing trend. In the UK and the USA, for example, their value accounts for over 55% of their capitalisation; in the Spanish case of Meliá International, the leading company in the Spanish hotel industry and number two in the European groups, their brands represented 58% of their market capitalisation in 2007
- Sustainability. Here we are grouping together innovation concepts such as social, environmental and economic sustainability: ideas which are starting to resonate in many companies with initiatives on the conservation of natural and cultural resources for their continued use in the future. So there is a generalised push (from customers, public opinion and governments) towards tourism development that is planned and managed from the environmental and socio-cultural point of view
- Efficiency in marketing processes. Large social networks have radically changed relationships between companies and users. Social media, ahead of other platforms and webs, have emerged to become the main communication channel, instrument of brand loyalty, and advertising media (Valls, Ouro, Freund and Andrade, 2012)
- Partnership with clients and society, which includes customer loyalty relationships, online and offline intercommunication with all publics, contact with the customer at the time of consumption and maintaining good customer relations and relationship management in terms of social and environmental return, insofar as tourism is always managing territory and heritage (both shared)
- Internal and external organisational flexibility in order to deal with change. Business success among mature companies comes through the ability to innovate, flexibility and the ability to change fast (Drucker, 2000). Without

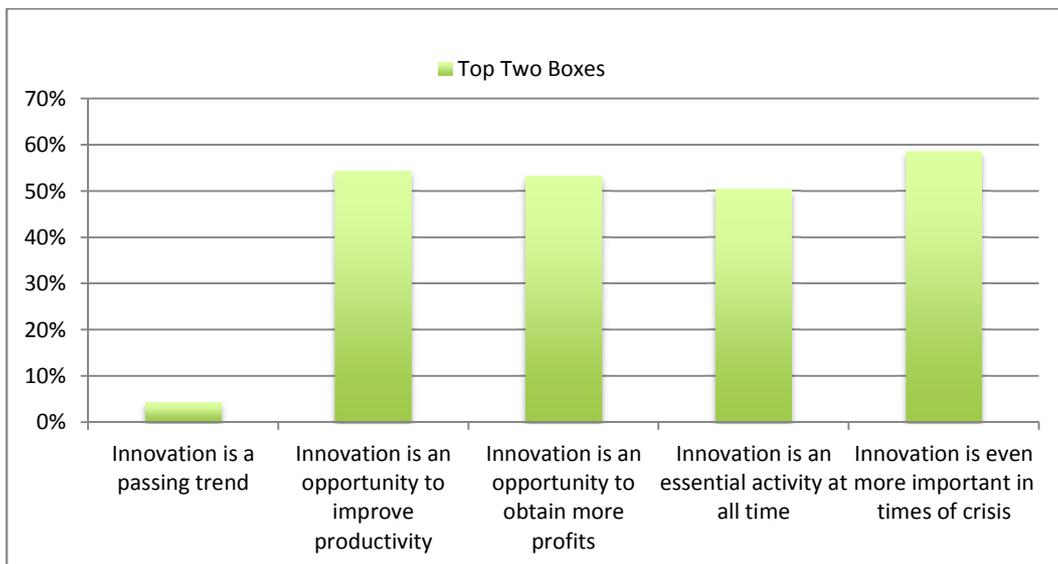
this, businesses go down. This is why flexibility has to extend to all production factors.

We considered exploring these contents to see whether there was a link between them and innovation that gave rise to clusters of differentiated companies.

4. RESULTS

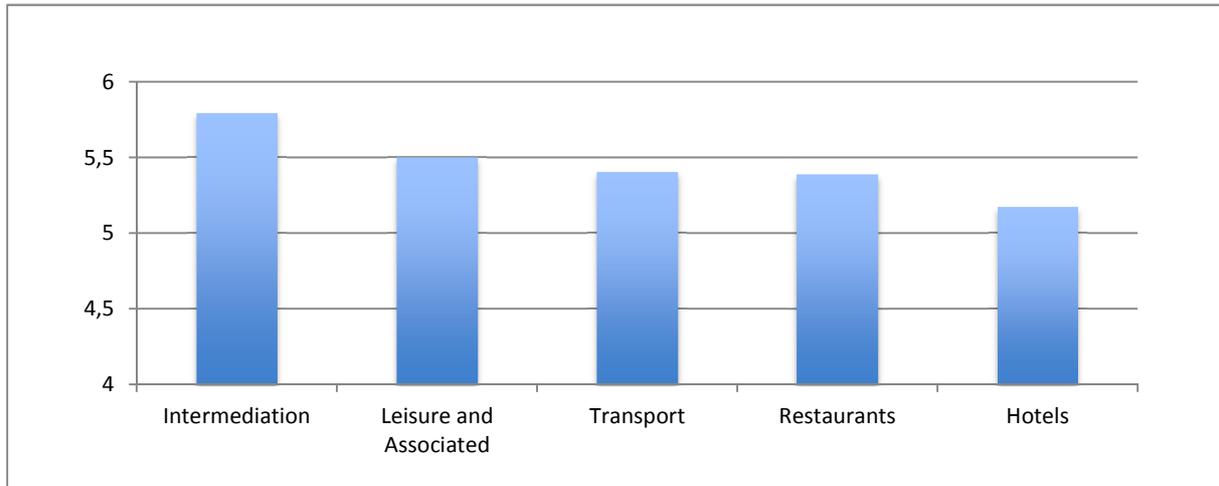
4.1 Attitudes towards innovation

The results regarding the attitude towards innovation show that, for most of the sample, innovation is even more important in times of crisis (59% of top two boxes). The idea that innovation is a passing trend remains in a position of little significance. The majority of the sample identified innovation as an opportunity to improve both productivity and profits. Moreover, it is defined as an essential activity at all times (graph 2).



Graph 2: Attitude towards innovation
Source: Own development, 2011

At this point, the approach towards innovation as an opportunity to improve productivity is segmented by sectors. The results concerning this attitude showed that all sectors value this concept between 5.2 and 5.8 on a scale from 1 to 7. Intermediation is the sector that values this perception most highly, while hotels are the sector that values this idea least (Graph 3).



Graph 3: Attitude towards Innovation as an opportunity to improve productivity

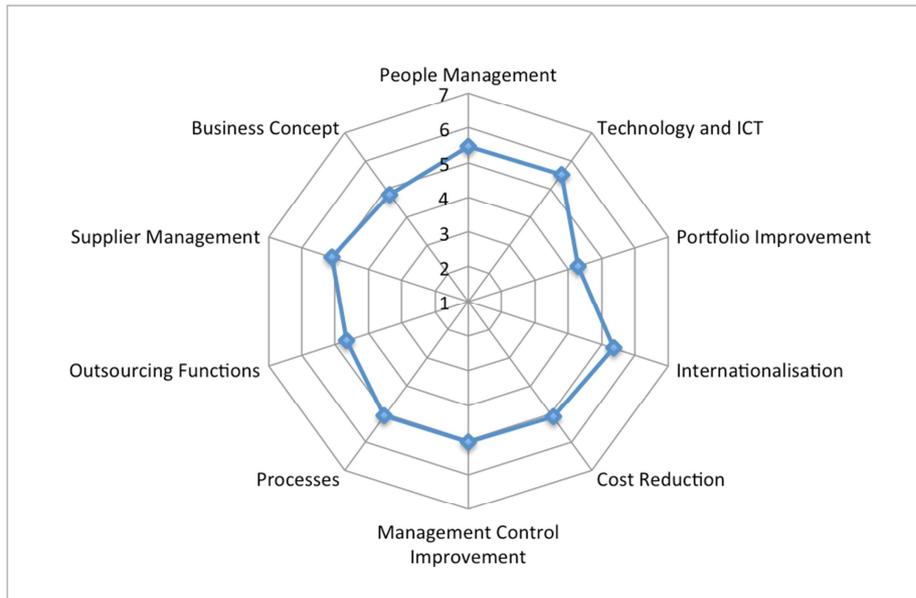
Source: Own development, 2011

4.2 By sub sector

The results show the importance that Spanish businesses attach to the ten areas of innovation carried out in their organisations. The scale is 1 to 7 (with 1 lowest). The results are given first by tourism sub sector, then by turnover.

The hotel sector is the largest in the sample (42% of the total). The details are as follows (Graph 4):

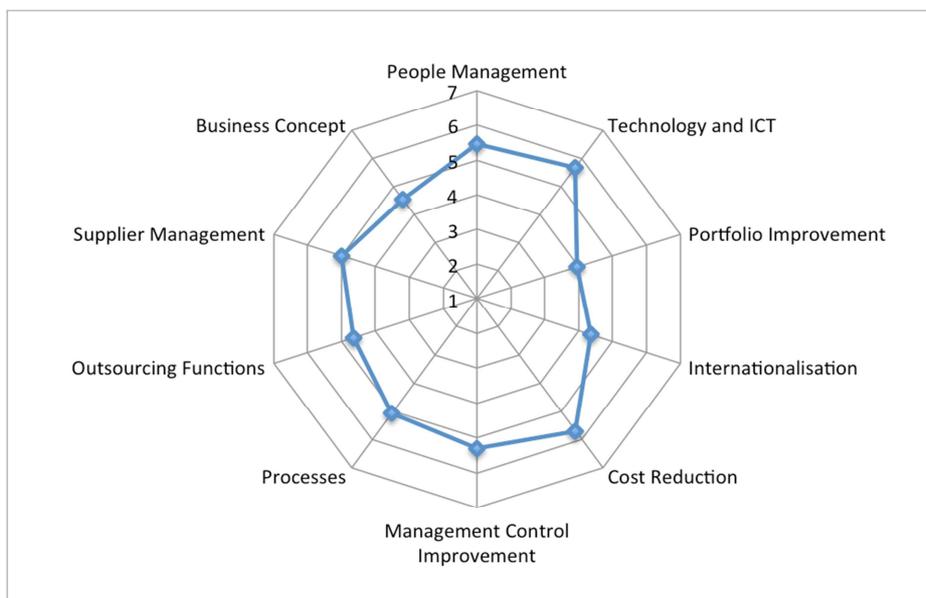
- General technology and ICT are the highest scorers (5.51).
- They are followed by people management (5.46) and internationalisation (5.36).
- Cost reduction, supplier management, processes and improved management control score just over 5/7.
- This is the sub sector that values the business concept highest (4.81).
- The lowest scorers are portfolio and outsourcing functions.



Graph 4: Innovations in hotels by importance
Source: Own development, 2011

Restaurants differ quite markedly from hotels (23% of the sample) (Graph 5):

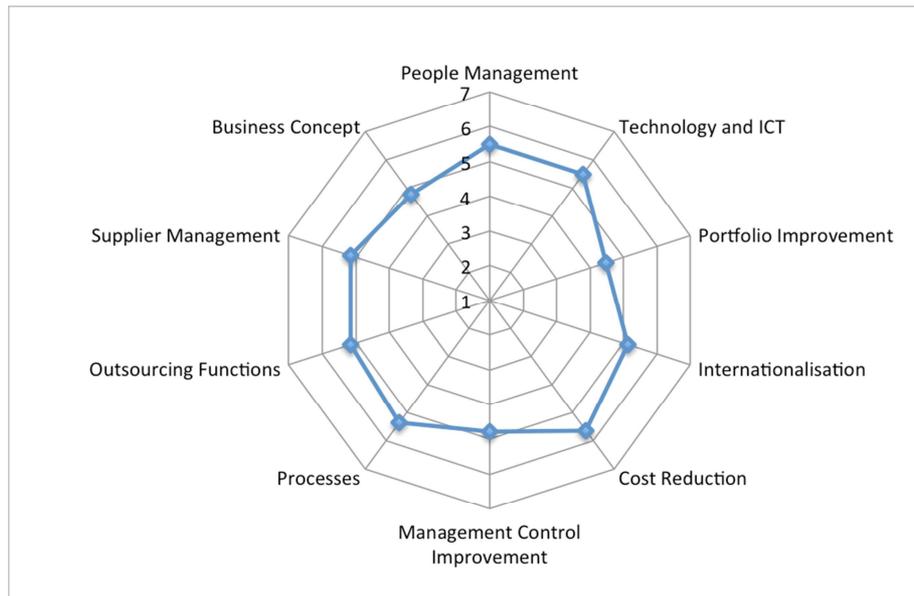
- Cost reduction scores highest (5.7).
- Followed by general technology and ICT (5.68), people management and improved management control (5.46 and 5.29 respectively).
- Portfolio improvement, internationalisation and business concept were lower, at between 4 and 4.5 gradually.



Graph 5: Innovations in restaurants by importance
Source: Own development, 2011

Transport (7% of the sample) ranked them as follows (Graph 6):

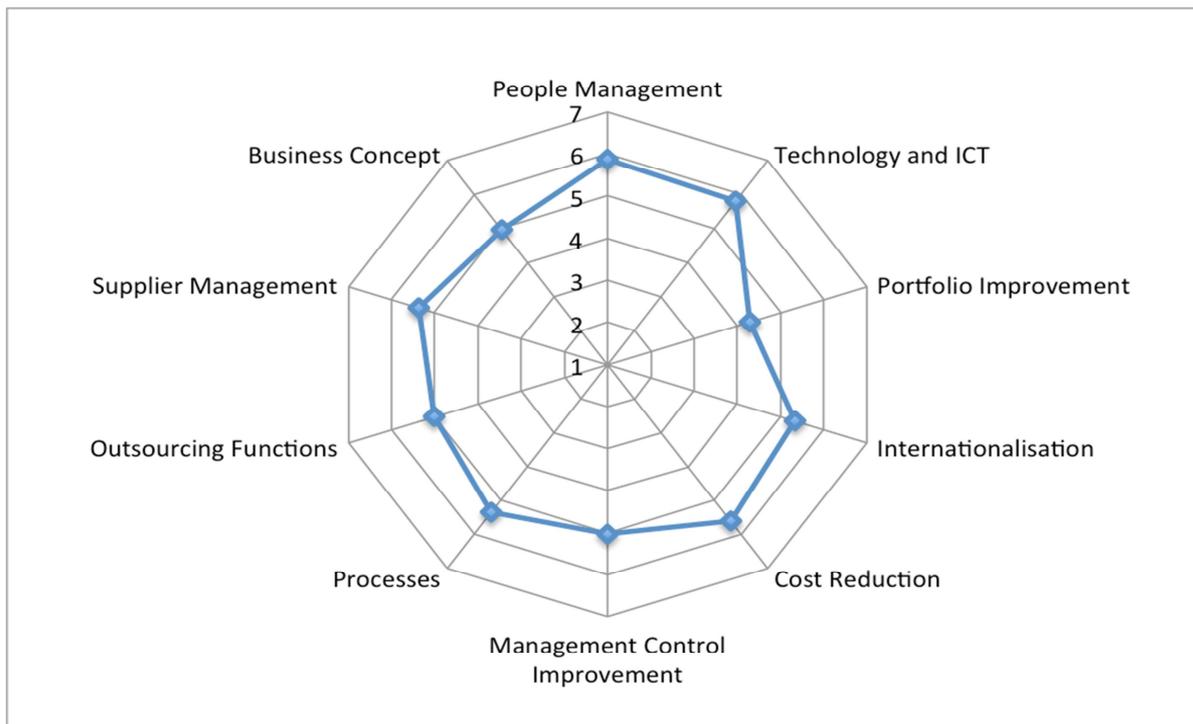
- Cost reduction comes first (5.64).
- Followed jointly by general technology and ICT, and people management (5.5).
- Processes, outsourcing functions and internationalisation score between 5.3 and 5.1.
- The lowest rated were portfolio improvement (4.46), and improved management control and business concept, both scoring 4.78.



Graph 6: Innovations in transport by importance
Source: Own development, 2011

Intermediation (8% of the sample) scored as follows (Graph 7):

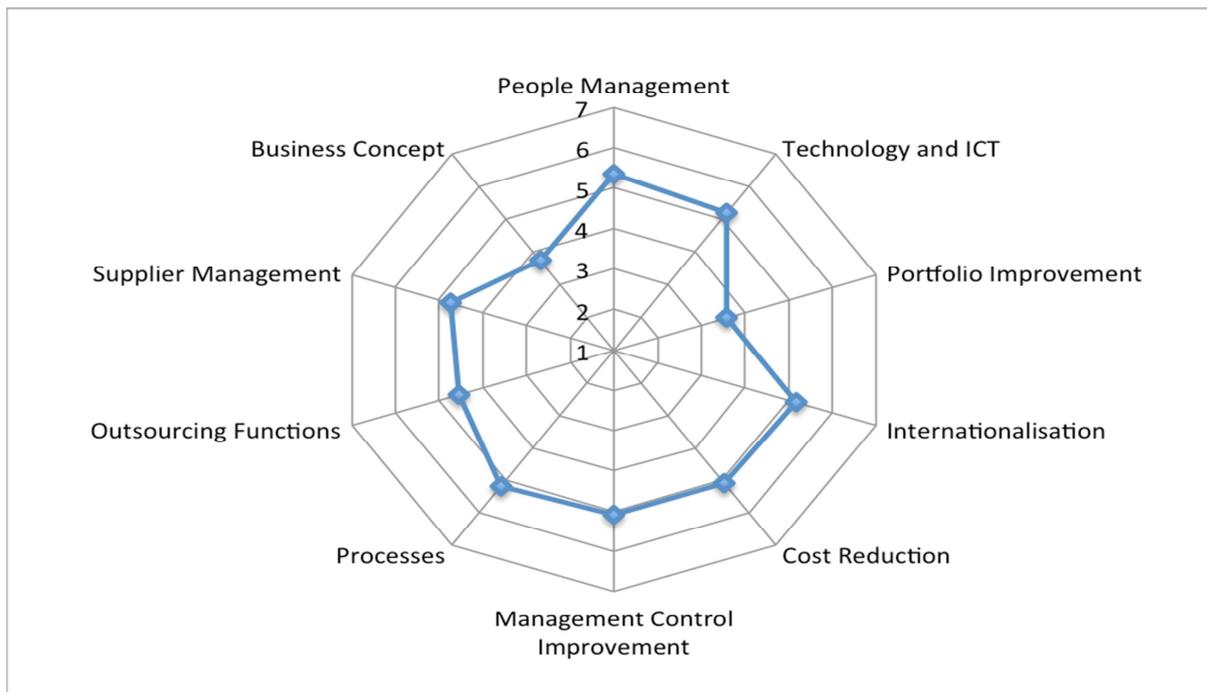
- The area of people management is considered to be the most relevant (5.86).
- General technology and ICT come behind at 5.78, as does cost reduction (5.60) just ahead of internationalisation and processes (5.34).
- Ranked lowest are portfolio improvement (4.28) and business concept (4.94).



Graph 7: Innovations in distribution by importance
Source: Own development, 2011

The leisure sector (5% of the sample) has the most irregular results of the group (Graph 8):

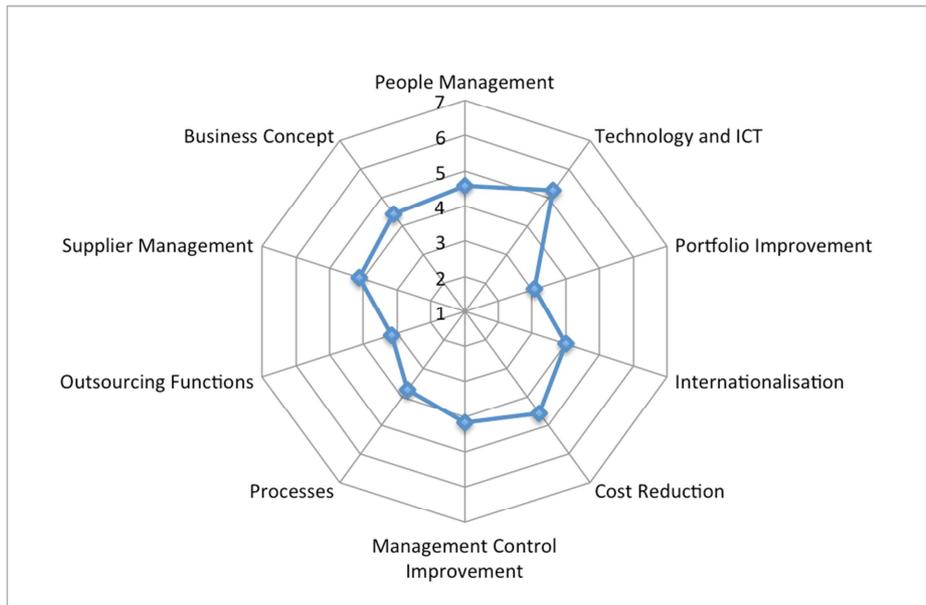
- The top position goes to people management (5.36).
- That is followed by general technology and ICT, internationalisation and processes (5.18).
- Cost reduction and improvement of management control score around 5.
- Below 5 are portfolio improvement and business concept (between 3.5-3.7).



Graph 8: Innovations in leisure by importance
Source: Own development, 2011

The group of 'other tourism sectors' (5% of the sample) shows the lowest scores of all the sub sectors (Graph 9):

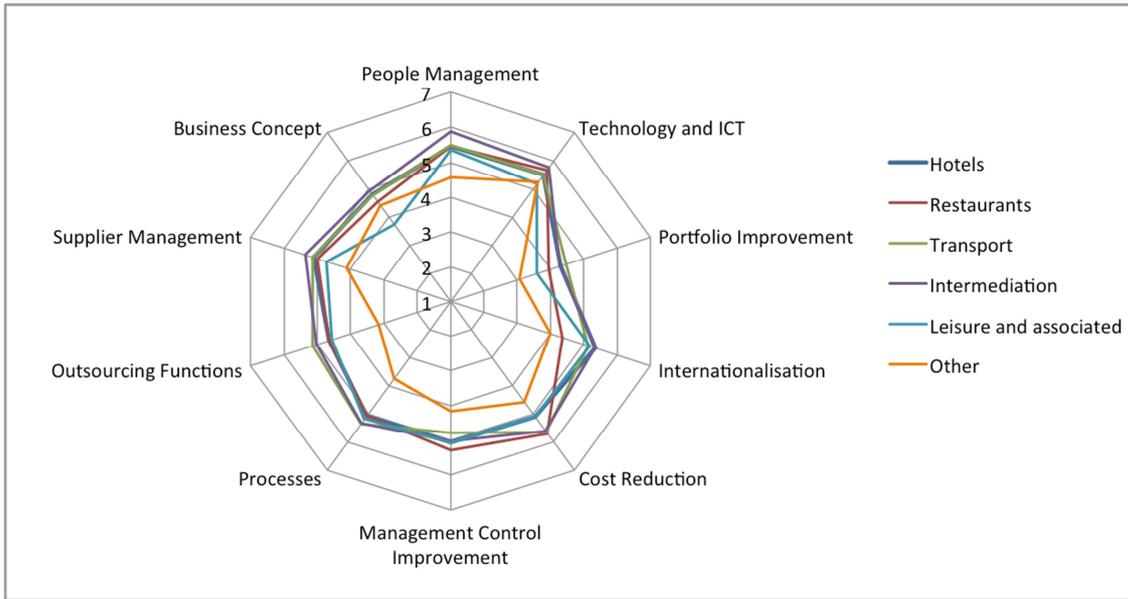
- Only one scores over 5: general technology and ICT (5.2).
- People management and cost reduction follow, at 4.58.
- Business concept and supplier management score just over 4.
- Internationalisation gets exactly 4.
- Below 4 are outsourcing functions (3.16) and processes (3.75).



Graph 9: Innovations in associated sectors by importance
Source: Own development, 2011

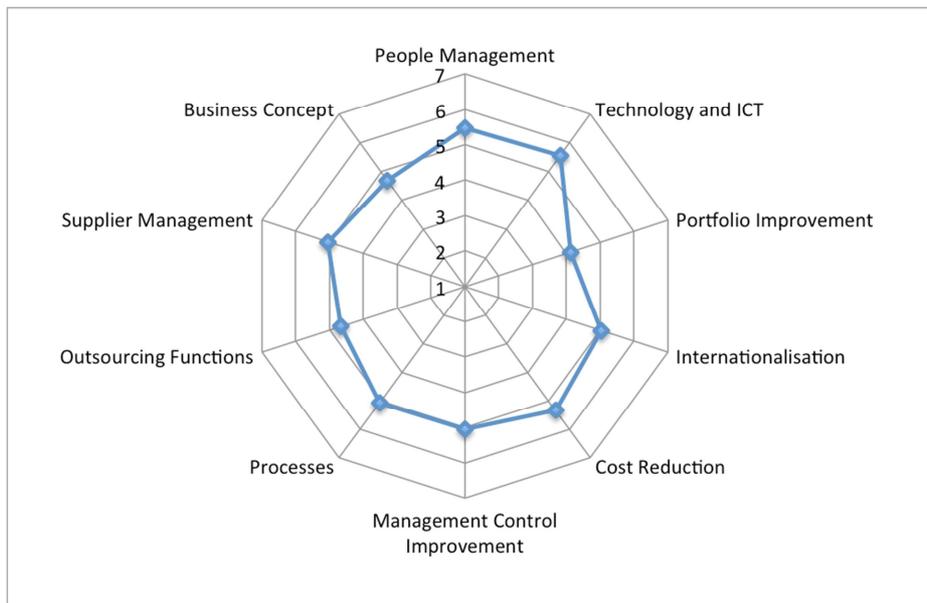
After looking at each sector's results (Graph 10, compared results), it seems appropriate to break down each of the innovation aspects to provide an average. This means we can see the average importance for each one. This is the order of preference (Graph 11):

- Technology and ICT: 5.57.
- People Management: 5.48.
- Cost Reduction: 5.33.
- Processes: 5.07.
- Supplier Management: 5.06.
- Management Control and Internationalisation: 5.04.
- Business Concept: 4.70.
- Outsourcing Functions: 4.66.
- Portfolio Improvement: 4.13.



Graph 10: Tourism Innovations Compared
Source: Own development, 2011

The results (graph 11) were calculated by doing an average from the sample, for each innovation dimension.



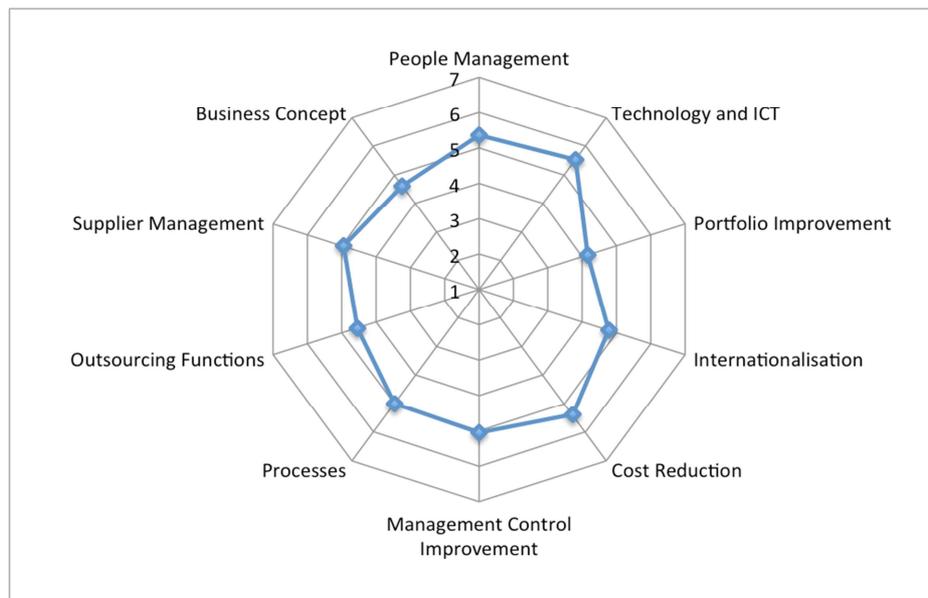
Graph 11: Tourism Innovations - Overall
Source: Own development, 2011

4.3 By turnover

The businesses are divided into three turnover groups: less than €500,000; between €500,000 and €3m and more than €3m. The resulting differences are not very wide.

Companies with a turnover of less than €500,000 show the following results (Graph 12):

- General technology and ICT comes first (5.52).
- Next is cost reduction (5.38) and people management (5.36).
- Third place is a cluster composed of improved management control, supplier management and processes, at around 5.
- The least valued are portfolio management (4.14) and business concept (4.63).

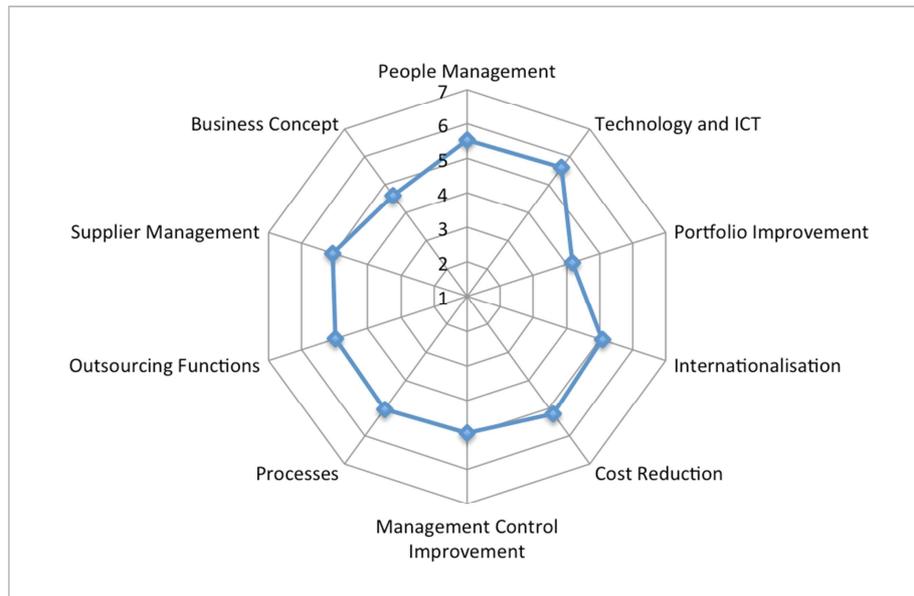


Graph 12: Importance of innovations by turnover: less than €500,000
Source: Own development, 2011

Companies with a turnover of between €500,000 and €3m show the following results (Graph 13):

- The highest scorer is general technology and ICT (5.61).
- Next is people management (5.53).
- Behind that comes cost reduction (5.2), closely followed by processes and supplier management (both just over 5).

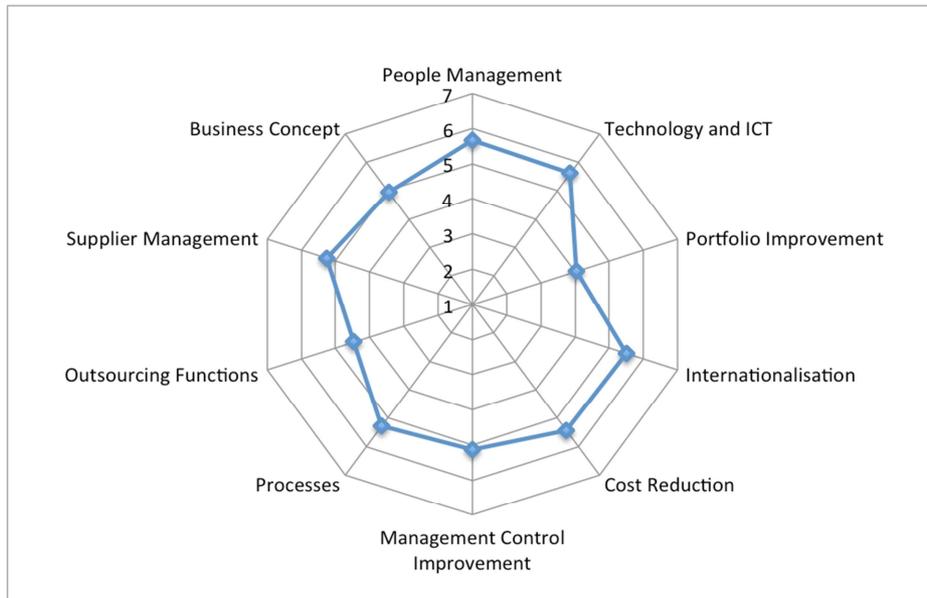
- Lowest scorers are portfolio improvement (4.18) and business concept (4.61).



Graph 13: Importance of innovations by turnover: between €500,000 and €3m
Source: Own development, 2011

Thirdly, the sector with an annual turnover of over €3m gives higher scores in most cases (Graph 14):

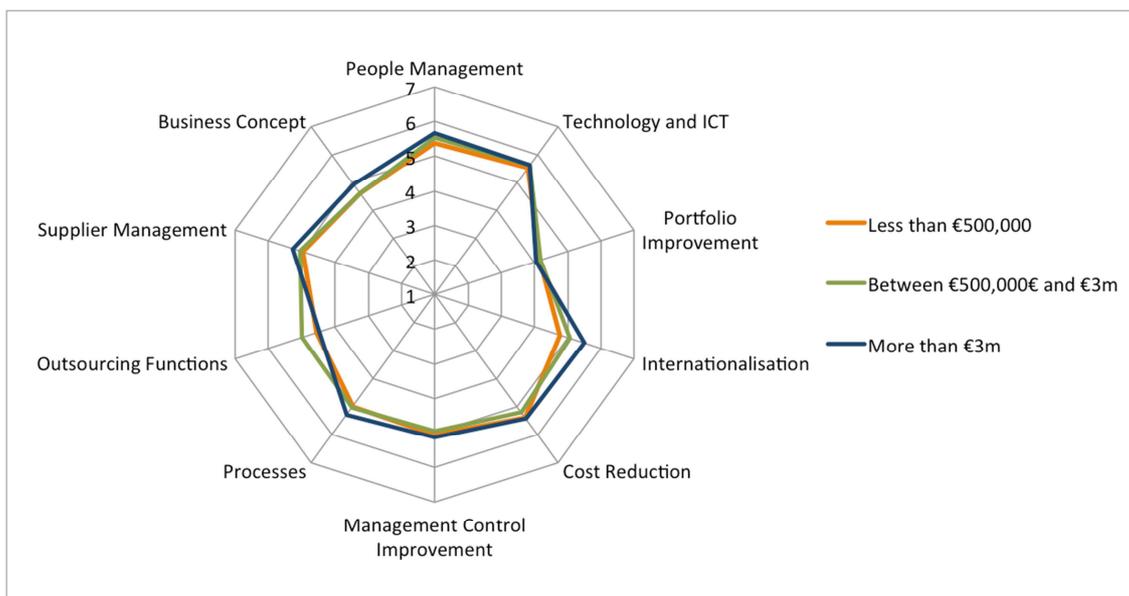
- People management and general technology and ICT are ahead at 5.65 and 5.61, respectively.
- Internationalisation follows close behind (5.5).
- Cost reduction is next (5.42) then supplier management (5.26).
- Lowest scorers are outsourcing functions (4.46) and business concept (4.94).



Graph 14: Importance of innovations by turnover: more than €3m
Source: Own development, 2011

A general overview of the turnover section shows that there is little difference in results when using this criterion. The most noticeable are (Graph 15):

- Internationalisation scores higher as the company turnover increases.
- Business concept, people management and supplier management score 3 tenths higher when turnover exceeds €3m.
- Outsourcing functions scores higher in companies with a turnover between €500,000 and €3m.



Graph 15: Importance of innovations by turnover: overall comparison
Source: Own development, 2011

4.4 Combination of the management dimensions

From the summary of processing the cases, three large groups of dimensions appear:

- Index of pro-active dimensions. This index covers the evaluations of offensive dimensions: constant improvement of the business model, portfolio management, and internationalisation of the firm.

Average	N	Stand. Dev.
4.69	353	1.356

- Index of defensive dimensions. This index encompasses the evaluations of reactive dimensions: cost reduction, processes and management control, and staff management.

Average	N	Stand. Dev.
5.37	353	1.357

- Index of instrumental dimensions. This index consists of the scores of the dimensions used by both the offensive and the defensive strategy to fulfil its objective: incorporation of technology and ICT, management of suppliers, and outsourcing of functions.

Average	N	Stand. Dev.
4.89	353	1.248

In view of all this, the index of defensive/reactive dimensions is the most highly valued by the entire sample, with an average of 5.37 on a scale of 1 to 7. The index of instrumental dimensions comes in half a point lower, with a score of 4.89. In last place, the index of pro-active/offensive dimensions obtains the lowest average at 4.69 (Table 2).

Index	Average
Index of defensive dimensions	5.37
Index of instrumental dimensions	4.89
Index of pro-active dimensions	4.69

Table 2: Grouped indices of dimensions
Source: Own development, 2011

These three dimensions of innovation have a statistically significant lineal correlation in all ways. It is stronger among the pro-active and instrumental dimensions (0.796 using the Pearson correlation method). The lowest correlation occurs between the pro-active and reactive dimensions (0.659 using the Pearson correlation method). At all events, the correlation is significant at the 0.01 level (bilateral).

5. DISCUSSION AND CONCLUSIONS

5.1 General conclusions

Restaurants and transport link innovation with cost reduction, firstly, and general technology and ICT next. Intermediaries and leisure mainly value people management, while hotels and associated sectors opt for both general technology/ICT and people management. It is worth noting that people management always comes next – that is to say, it comes third – in any sub sector where it is not first or second. On the subject of people management, it must be said that most of the sample links it more to rationalising or actually reducing than talent or improvement. So aspects of innovation connected with restrictions take the top places.

The innovations scoring lowest with hotels, restaurants, distribution, transported and leisure (all except the “other sectors” sub sector) are the creation of new business concepts and pro-active portfolio management.

The other aspects fall between the highest and the lowest valued.

A number of assumptions can be made from these results about the actions of the various tourist companies surveyed:

- It is obvious that most sub sectors have difficulties when it comes to managing their portfolios in times of crisis. They cannot see the opportunities for innovation in this area, one of the main sources. As certain current products become obsolete, creating others rejuvenates the portfolio and puts them one step ahead of the inevitable product life-cycle.
- Even worse is the way that the creation of new business concepts is being dealt with. It gives the impression of a lack of vision about innovation strategies needed to deal with the crisis. They are stuck in an old business model, unable to keep up with the new consumer demands or to present new business models that customers may be demanding.
- Another crucial aspect in acquiring a better position in the future market through innovation is internationalisation. However, it does not seem to be very highly valued by the hotel sector, only managing the third position. The Spanish tourist sector as a whole is some distance from a real vision of globalisation, from competing and expanding into new markets through acquired knowledge.
- Both restaurants and transport insist on cost reduction; intermediaries and leisure stick with people management from a rationalisation and reduction point of view with almost no concept of talent improvement, while hotels and other sectors rely on general technology and ICT to save the day.
- The same thing is happening with certain processes that are seen as key to improving the product and the tourist service: processes in general, outsourcing functions and management control.
- Also, the level of supplier management across the board is almost insignificant. Their limited ability to change one supplier for another in order to improve the product and service (and the costs) or to establish closer relationships with them reduces, in most cases, the capacity for competition.

Looking at the companies in terms of turnover, as has been said there are no great differences to speak of, but the most interesting discussion points are as follows:

- Only the largest companies see innovation opportunities in internationalisation, but they place it third, behind people management and

general technology and ICT. They associate internationalisation with size, without realising that the process of globalising and opening up offers huge possibilities for any size of company if it has a business model that can adapt to other environments.

- Just like the sub sectors, all business strategies are stranded when it comes to reinventing the business model. They are stuck in the past, not realising that all over, but particularly in tourism, the customer is looking for major changes.
- Businesses with a turnover of more than €3m have not adapted to the level of outsourcing and online presence that would create a feedback of talent through alliances with other expert companies dealing with specific processes or outsourced functions.
- All of them opt for general technology and ICT, which they hope will help them make that leap towards competitiveness.

So we can identify three dimensions of innovation: pro-active/offensive (portfolio, business concept and internationalisation), reactive/defensive (controlling costs, workforce and management) and instrumental (incorporating technology and ICT, more flexibility in supplier management, process management and outsourcing of particular non-core business functions).

We note that the reactive/defensive (reduction in costs, people and management) are towards the top of the list, while the pro-active/offensive (portfolio, business concept, internationalisation) are towards the bottom. Instrumental factors are more around the middle although in certain sub sectors they take first place (clearly the case with technology and ICT in nearly all the sub sectors) while in others they are at the bottom (for example outsourcing, for hotels, restaurants and other sectors).

The results seem to indicate that Spanish businesspeople in tourism have a competitive vision more closely connected to reactive/defensive dimensions of innovation than pro-active/offensive when faced with a crisis. Behind these discussion points, we can see a fairly widespread reaction to the crisis of fear and withdrawal, resulting in defensive strategies. Groups that lean towards the kind of competitiveness associated with this side of innovation have a conservative approach, trying to weather the storm and limit activity during the crisis. The small

minority take a more confrontational approach, seeing portfolio management, business model reinvention and focusing on internationalisation as the only ways of meeting the new consumer demands, by offering new more flexible business models in tune with market requirements, and going for expansion. Between the offensive and defensive choices, the instrumental factor is somewhat undefined. In fact, the introduction of new technology and ICT, more flexible provider management, process management and outsourcing specific non-core business functions are seen very differently depending on whether the strategic vision is offensive or defensive.

Regarding innovation in its strictest sense, one should note that most of the respondents in our sample had put a brake on innovation because of the crisis. They innovate less than before. This attitude is much closer to a reactive, 'defensive' vision than to an active, 'offensive' one.

5.2 Verification of the hypotheses

Of the three hypotheses, H1 was the only one that was wholly confirmed. There was common agreement among the respondents that innovation is the only way to improve competitiveness, particularly in times of crisis. The overwhelming number of responses stating that innovation is the key to competitiveness, especially in the present recession, showed this. On top two boxes rating levels, "innovation is even more important in times of crisis" (59%) to all sectors (between 5.2 and 5.8 on a scale from 1 to 7); Intermediation is the sector that values this attitude most, followed by leisure and associated, and transport. Restaurants and hotels are the sectors that have the lowest average in this respect. The research showed that "innovation is an opportunity to improve productivity" (54%). In this way, H1 is demonstrated insofar as an extremely significant part of the sample considers that innovation is the most important factor in times of crisis as a means of emerging from the crisis, seeing it as an opportunity to improve productivity".

Hypothesis H2 was only partially confirmed. The fieldwork revealed that entrepreneurs see innovation in a fairly holistic light. It affects all areas of company management and any strategic initiative in a tourism firm affects others. However, there were two opposing visions of the dimensions of innovation. One was an open, 'offensive' view that focused on improving products in the portfolio and sought to

internalise business and, in some cases, foster talent. The other vision was reactive and 'defensive', focusing on cutting costs and staff, management control — all of which are restrictive aspects of a company. The first vision leads to the satisfaction of new demands whether in a new or existing market. It also leads to more flexible organisations to supply new products and fuels expansion in global markets. In other words, it seeks new value propositions and positioning in present and future markets. However, the results gleaned from respondents reveal the second approach is more common. Here, the approach is 'defensive'. The basic idea is to lighten the ship, jettison cargo and crew while battening down the hatches in the hope of weathering the storm. Thus, while innovation is seen in holistic terms, the majority of respondents chose more 'reactive' dimensions than active ones. A confrontation of either offensive or defensive strategies appears in the results of the sample, but it is not demonstrated that both can coincide, as the hypothesis sought to show. On the other hand, the instrumental dimensions – and this is one of the arguments that help to validate H2 – prove to be essential for both the offensive and the defensive vision.

It proved impossible to confirm Hypothesis H3 and therefore no result is shown. The sample identified some of its contents (ability to create consumer experience, management of brand intangibles, sustainability, efficiency in marketing processes, partnership with clients and society as a whole; making organisation more flexible both inside and out) as promising ways out of the crisis. We can confirm that these contents were relevant but that none stood out from the rest, with the sole exception of organisational flexibility (albeit in an unrepresentative fashion). Accordingly, when conducting the factorial analysis, no statistically significant results emerged that would have helped identify differentiated clusters of firms. Accordingly, we have intentionally omitted the results covering this section.

5.3 Study limitations

The main limitation of this study lies in the impossibility of demonstrating Hypothesis H3 within the theoretical framework used in this paper. We therefore consider it would be worth addressing this inconclusive part of the research by conducting an independent study using another theoretical framework. Such a

framework should be capable of linking dimensions and contents. A study of this nature would be extremely valuable for tourism companies, given that factorial analysis would allow one to establish a relationship between new contents and clusters of firms and give vital clues to ways of boosting competitiveness and finding the quickest way out of the recession.

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