

DEVELOPMENT OF TOURISM DESTINATIONS AND APPLICATION THE PROSPECTIVE METHODOLOGIES TO SUPPORT THIS MANAGEMENT

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Abstract

The application of prospective methodologies in the management of tourism destinations is recent and is the result of a growing concern to assess sustainable projects in planning and tourism development. These studies can support decisionmaking and sustainable construction at destinations. In this context, the Delphi methodology intends to predict future changes or trends and emerges as an alternative to conventional methods of prospecting. Its application to tourism destinations has contributed to a different interpretation of the characteristics of the destination and processes to be developed, leading to forming a panel that promotes quantitative and qualitative assessments of balanced strategies or projects, allowing to base action logics and assume guidance. The study applied to the Central mountain range destination includes an inquiry about existing problems, recognition of disruptive interventions, policy addressing/interventions for the management and promotion of the tourism destination, reaching a consensus for decision-making and defining strategies for the territory appropriation through tourism and leisure activities.

Keywords: Tourism, Destination Management, Prospective Studies, Delphi Methodology and Mountain range.

INTRODUCTION

The development of analysis and territorial prospective works is a key support to consider strategies with concrete implications in terms of logic and functionality that those areas are confronted with, so all research must be done using appropriate methodologies and critical indicators analysis, which allows a correct diagnosis to leverage proposals or strategies to be implemented.

The research and production of accurate information is subject to processes and methodologies whose implementation needs meticulous care and an investigative experience that ensures the accuracy in data collection and analysis. These concerns become critical when trying to listen to stakeholders with distinct characteristics, forms of action and interests in a given area, in order to receive quality information and dispel disruptions in the process and the collection methods used (Gordon and Pease, 2006). This work seeks to analyse and establish guidelines for the development of actions that ensure sustainability of results, through a deep understanding of the territorial reality under study, promoting itself as a critical tool for planning tourism destinations. Given the uncertainties we face, resulting from changes in the economic and social context and ways of perceiving destinations and their appropriation, it is

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crucial to develop an information-gathering process (Garrod and Fyall, 2005), able to sustain guidelines or action strategies in a participative manner. The Delphi method was designed with the goal of predicting future changes or trends and emerged as an alternative to conventional methods of prospecting. It aims to establish a prospective research, through an information gathering process by combining the knowledge and experience of experts in various fields in order to generate consensus of opinion on future facts or effects. This methodology was implemented while looking for an insight into the mountain areas in Portugal and in an attempt to systematize a broad range of information that characterizes the mountains of the Central Mountain Range, its problems and also to allow the identification of strategies to be promoted (Fernandes, 2010). A panel of experts from various scientific fields was established in order to obtain an approach about the specificities of these territories and its challenges, and establish a model of occupation and proper use of its characteristics, whilst ensuring the enhancement and sustainability of tourism.

1. PROSPECTIVE METHODOLOGIES AND PUBLIC MANAGEMENT OF TOURISM DESTINATIONS

Doubt and uncertainty play a critical role in the management and planning process, which in a sector such as tourism, generates a sense of uncertainty, given the different trends and ways of its use and choices by individuals and groups. Thus, the sceptical dimension of forecast requires the development of methodologies and an increased involvement of partners that enable finding ways and sets, able to promote that the forecast led to the prospect. The planning, as a dynamic process subject to constant review, should increasingly and widely integrate the participation of different stakeholders about their vision of the future, realizing its strategic behaviour. (Godet, 1997; Hatem et al., 1993). The foresight methodologies seek to identify possible sets and the dependent relationship between the way to achieve or promote these sets and the strategy of social stakeholders, as well as the variables, the relationships and dependencies or potential over the development of action strategies. A qualitative and prospective approach assumes that the analytical tools and methodologies employed are developed promoting collaboration and interaction between the different stakeholders involved, recognizing their differences, strategies and interests. Anonymity was required in the sense that no one knew who else was participating. Further, to eliminate the force of oratory and pedagogy, the reasons given for extreme opinions were synthesized by the researchers to give them all equal "weight" and then fed back to the group as a whole for further analysis. These aspects, anonymity and feedback, represent the two irreducible elements of the Delphi method (Gordon and Pease, 2006). It thus becomes so important to develop an organization and coordination between different stakeholders, and their effective involvement/engagement is crucial in order to "legitimize" the given opinions or guidelines. It is essential to take into consideration that the stakeholders'

relationship networks have a dynamic and unstable character. If, at a given moment, they have a given configuration, they are formed and can change throughout the analysis of the stakeholders' strategies. If the demand for objectivity is a major concern - we must not forget that decision-making is firstly and foremost a 120 human activity implied by the notion of value and that subjectivity is omnipresent and is its engine (Bana and Costa, 1993b: 1) - the issue of subjectivity is present in any decision-making process and, particularly, the prospective methodologies since there is always a large "dose" of subjectivity. On the one hand, the work team has a very high degree of intervention throughout the process, one should not ignore judgements and should be aware that they are not neutral as the process progresses, on the other hand, one should bear in mind the degree of subjectivity of the choices on the part of the stakeholders, their priorities.

2. THE DELPHI METHOD: CONCEPT AND OPERATION IN MANAGING TOURISM DESTINATIONS

The method was developed by Dalkey and Helmer (1963) of RAND Corporation in 1950 for a project sponsored by the U.S. Army. It was created as part of a post-war movement concerned with the prediction of possible effects of technological development in economic and social regeneration. The objective of the original study was to "obtain the most reliable consensus of opinion of a group of experts by a series of intensive questionnaires interspersed with controlled opinion feedback" (Linstone and Turrof, 1975). The Delphi method may be characterized as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem (Linstone and Turrof, 1975). This method is defined as a structured, interactive group communication and judgmental forecasting process with the purpose of facilitating a systematic exchange of informed opinions among a panel of experts in order to develop a consensual understanding on a topic ((Linstone and Turrof, 1975; Donohoe and Needham, 2009). Especially in situations characterized by uncertainty, i.e., when objective, fact-based quantitative information is scarce or not reliable, the Delphi method has proven to be effective (Linstone and Turrof, 1975). Thus, the Delphi methodology is an exploratory study that allows gathering the views of a panel of experts, which is called the Delphi panel. This process is carried out by conducting a series of questionnaires in, typically two or three rounds, on the subject under study (Ramos et al., 2012; Ramos et al., 2015). In this research method the results depend strongly on the quality of the questionnaire and the selection of experts (Förster and von der Gracht, 2014). The dimensions of heterogeneity for the purposes of a Delphi survey are manifold. For instance, individuals can differ in their age, gender, cultural and educational background, knowledge base, profession, values, attitudes, or tenure (Godet, 1993). Furthermore, the Delphi methodology is characterized by the anonymity of the participants, the statistical representation of the distribution of results and the

use of the feedback from the group to review the answers in a later round. In this research method, the results depend strongly on the quality of the questionnaire and the selection of experts (Okoli and Pawlowski, 2004). Although the method foresees several successive rounds of questionnaires, it can often be limited to two rounds without affecting the quality of the results, as it has already been demonstrated in many studies (Landeta, 1999; Vergara, 2005). According to Geist (2010), the Delphi method can be used to determine important issues and be used as a precursor or a first approach to the development of a research.

The Delphi method intends to predict future changes or trends and emerged as an alternative to conventional methods of prospecting. The application of the methodology in the management of tourism destinations is relatively recent and is the result of a growing concern to assess projects or sustainable construction of destinations in the planning and tourism development process. The aims are (Kaynak, 1994; Monfort, 1999; Garrod and Fyall, 2005; Fernandes, 2010) to:

- Promote a prospective study, through a process of information gathering, combining the knowledge and experience of experts in various fields, promoting a holistic approach of the destination.
- Generate consensus of opinions about facts or future effects on tourism destinations because of the features/products held and demand trends.
- Establish a vision about the tourism destination and representation logics facing the identified contexts.
- Systematize a wide range of information that characterises the destination.
- Identify the strategies to be promoted.

This methodology requires the identification of experts and their involvement in the study, so that they can generate quality information and participate interactively in several rounds, in order to exploit the information obtained, generate consensus or guidelines and collect strategies or options, either by validation of the produced data, or innovative information resulting from knowledge, experience and benchmarking developed (Garrod and Fyall, 2005). In the study applied to the central mountain range destination, we tried to inquire about existing problems, about the recognition of disruptive interventions, policy addressing / interventions for the management and promotion of the tourism destination, reaching a consensus for decision-making and defining strategies for the territory appropriation through tourism and leisure activities.

The Delphi methodology is, in practical terms, the collection of expert opinions, anonymously, through questionnaires, and by rounds, it allows the

analysis and exploitation of results of the information received, so that it can be sent back and modified, in order to achieve consensus. It seeks to achieve the convergence of answers /perceptions about the problems experienced through information targeted feedback that is repeated in successive rounds. The research relies, to a large extent, on personal expectations, taking advantage of the experience and knowledge of the selected experts group, with a multidisciplinary vision that allows to establish goals and interventions. The methodology is applicable when it is necessary to contrast and combine arguments and opinions to reach decisions, hardly taken unilaterally, thus obtaining qualified information from knowledge by the Panel of experts involved in the process. According to Kaynak (1994), Häder and Häder (1995), Cuhls (2005), Ramos et al. (2012), Ramos et al. (2015), the fundamental characteristics of this methodology are (figure 1):

-Group technique that replaces the interaction through a questionnaire that is sent to experts, who interpret and work by themselves, participating from a distance in the discussion and opinion making;

-Prior Selection of the experts, according to their knowledge, prestige and ability to express opinions about the tourism destination or its specifics;

-Feedback controlled by sending the results to the members of the Panel (experts), in order to achieve convergence, that is, starting from the transmitted and considered data, reconsidering or revising it;

Quantitative treatment of information that allows generating representative answers and that show homogeneity or dispersion of opinions. Figure 1 presents the steps of applying the Delphi methodology.

Figure 1-Steps of applying the Delphi methodology

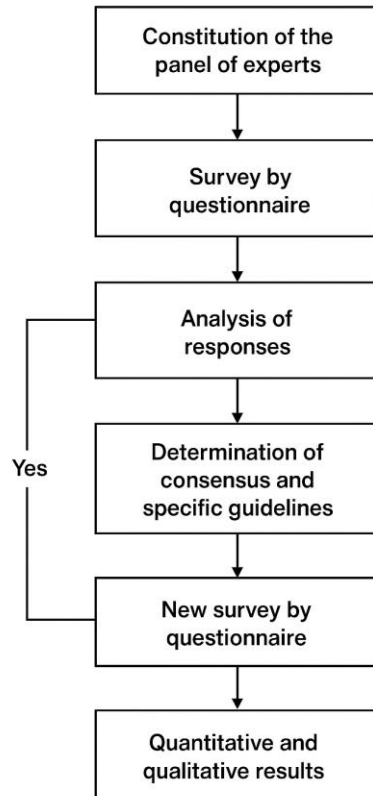


Figure 1. Steps of applying the Delphi methodology

Adapted from Fernandes, 2010

According to Warner (2015) the first major task in a Delphi study is to create an expert panel of individuals (Linstone and Turoff, 2002). The panel can be composed of any combination of stakeholders, subject experts, and facilitators (Linstone and Turoff, 2002). There are several recommendations for the number of panelists that should be used, and it is also important to use an adequate number of panelists who are well-qualified to provide input on the topic. One recommendation is to engage at least 13 expert panelists in order to achieve a reliable (reliability of 0.9) sample (Dalkey, 1969; Dalkey, 2002). A panel with 10–15 similar panelists has been recommended as the ideal number (Delbecq et al., 1975). While the number of panelists can vary greatly and is ultimately dependent on the research design, Delbecq et al. (1975) caution against using too many panelists, in that data analysis may be daunting. The Delphi study relies on a panel of selected experts, due to their knowledge about the theme, prestige and ability to generate opinions. Thus, the group was composed by

university professors; representatives of public institutions linked to agriculture, forestry, tourism and regional development and Presidents of municipalities from the central mountain range. In view of the criteria defined, 40 experts were invited, by The survey by questionnaire Constitution of the Panel of experts Implementation of the survey Analysis of responses Determination of consensus and specific guidelines New survey by questionnaire Quantitative and qualitative results Yes No Adapted from Fernandes, 2010 sending a description of the project, goal and purposes, with an acceptance sheet for the development of research by mail. Its application to tourism destinations has contributed to a different interpretation of the characteristics of the destination and processes to be developed, leading to forming a panel that promotes quantitative and qualitative assessments of balanced strategies or projects, allowing to base action logics and assuming guidance Fernandes (2010).

The Delphi study applied in this investigation is based on a panel of experts, selected in view of their knowledge about the topic, prestige and ability to form opinions. The collaboration consisted of issuing opinions in two stages or rounds of consultation. In many cases a personal contact was made, in order to stimulate participation.

3. MAIN RESULTS AND CONTRIBUTIONS

These techniques promote a greater innovation and creativity ability in research, because they promote ideas and action strategies for the group involved in the process of study (Gordon and Pease, 2006). With this procedure it is also possible to reach problem identification, information retrieval, detection of disruptive interventions, solving strategies and action plans, in a transversal approach, as a result of the various specialists involved on the management and development of the tourism destination. However, the rigour of research may be conditioned in the face of quick political, social and economic changes, as well as the knowledge that is being produced. In methodological terms it allows to: eliminate personal or group influences; ensure the representation of all opinions; group opinions and guidelines systematically; avoid face-to-face and formal meetings, which means economy and swiftness; filter and specify information; think about the questions in writing; reduce errors and uncertainties in relation to controlled retroaction and allow quantification.

The methodology has proved to be of great interest, despite the difficulties at the level of involvement of the experts asked to participate in the research in information retrieval and in building a feedback system that allows us to evaluate trends, diagnose potential and support decisions. To the experts' panel, the management of the mountain range areas should be the responsibility of administrative authorities, including the preference for inter-municipal institutions. Six strategic goals for the promotion and qualification of tourism were identified: Valuation and protection of the environment, natural resources

and their functions; Enlargement of the plurifunctionality of the mountain; Promotion of permeability of mountain territory; Planning and management of forest areas; Qualification of the agro-pastoral activities; Promotion of tourism activities highlighting heritage; Encouraging the participation of local communities in tourist planning strategies. It allowed setting six foundations for the structuring of a specific policy: Cultural, patrimonial, and environmental preservation, protecting the structure and operation of the ecosystems and of the landscape; Construction of a development model and specific development of tourism, favouring territorial cohesion; Identification and valuation of resources and local potentials; Involvement of the local stakeholders in preservation policies, in order to enhance and monetize these territories; Investment in vocational education and training in Tourism and Hospitality; Economic stimulation that promotes population growth and services (discrimination according to the local costs). So, in terms of preservation it is necessary to specify the vocations, specificities and potential of various territories that make up the mountain, in an integrated and participatory manner, allowing, on the one hand, the conservation and safeguarding of elements of greater value and identity and, on the other, develop management and planning activities in the light of specific local features hinged and their potential. At a promotional level, the mountain must build an image of quality and integrity, as a brand associated with its features, developing policies that allow easy access to these regions in material and immaterial terms and increase training in strategic areas.

The shortcomings and weaknesses of these economic and social territory must be mitigated through activities that value the specificities and local wealth in a sustainable way, boosting the agro-forest-pastoral system, betting on its quality, certification and designation of origin, strengthening the activities of tourism, recreation and leisure, increasing the offer of hotels and equipment that extends the attraction of the region throughout the year and invest on the qualification of human resources.

Tables 1 presents the strategies and actions for the Central Mountain Range destination management.

Table 1-Strategies and actions for the Central Mountain Range destination management Actions/Interventions Preservation

Category	Actions / Interventions
Preservation	<ul style="list-style-type: none"> • Definition of vocations, specifics, and potential of each mountain area, involving politicians, economic agents, and the local population. • Development of plans to safeguard and promote endogenous potentialities. • Creation of Tourism Charters aligned with regional planning instruments. • Inventory of heritage and potential tourism resources. • Integration into international networks for preservation and geoconservation of high eco-cultural potential territories.

Category	Actions / Interventions
Promotion	<ul style="list-style-type: none"> • Improvement of road infrastructure and tourist signposting. • Promotion of an image of quality and integrity. • Creation of infrastructure and equipment to enhance quality of life and regional development. • Promotion of the territory’s tourism and leisure features. • Certification and designation of origin for local products. • Improved access to physical and digital infrastructures (information and knowledge networks). • Promotion of gastronomy and livestock production. • Valorization of natural resources and high-risk areas. • Promotion of innovative accommodation connected to mountain, nature, and biodiversity.
Encouragement	<ul style="list-style-type: none"> • Promotion of sustainable activities highlighting local specificities and wealth. • Incentives for population settlement and economic activities. • Promotion of collaboration among local agents through tourism cooperation. • Training of qualified human resources in tourism and hospitality. • Strengthening of recreation and leisure offerings with diverse layouts and products. • Creation of partnerships supported by digital platforms. • Development of tourism cooperation networks involving key stakeholders. • Valorization of agro-forest-pastoral systems in mountain areas. • Encouragement of scientific research utilizing the mountain as a natural laboratory.
Participation	<ul style="list-style-type: none"> • Increased participation of communities, economic agents, and institutional partners. • Development of projects adapted to physical and socio-economic realities, ensuring inclusivity. • Involvement of educational institutions and R&D centers in tourism strategy formulation. • Promotion of connections between mountain regions at a European level through proactive, collaborative networks.

There is an unanimous recognition of the mountains as eco-cultural references for the awareness of the ecological degradation and the promotion of environmental values. This attitude is based on natural recovery, in the existence of traditional systems of organization and territorial management, the preservation of strategic water reservoirs, forest and biodiversity, which enhance an ecological conscience and have a didactic function. The maintenance of the integrity and difference, faced with a global socio-economic model, is an asset for its development, to the extent that the growing trend of consumption standardization and the environmental and cultural deterioration, leads to the promotion of territories whose authenticities are preserved. In this regard, the valuation of the identity and specific characteristics of these territories involves their differentiation faced with areas with a high intensity of transformation and socioeconomic appropriation, increasing its competitiveness and quality. There is, thus, the exponentiation of the

specificities and singularities, which should constitute the identification reference at the level of territorial marketing as a way to promote the territory, its resources and productions.

Success is dependent on the degree of involvement of the group and of the depth of the opinions, due to generating a system of "qualitative" group information gathering (though it may have quantitative dimensions) that wishes to be a "fundraiser" of brains (picking the brains), this aspect has proved critical in the quality of the results to be obtained and in terms of information processing, which when not properly planned can lead to disturbing situations of information and the means involved (Landeta, 1999; Godet, 1997; Garrod and Fyall, 2005), such as:

- It may result in the dilution of opinions of the real experts in the group;
- It requires a great rigour in the preparation of the issues and its interpretation;
- It makes the anonymity of experts difficult;
- It conditions the effectiveness of the research process, if delays happen when sending the responses in the developed rounds;
- Possibility that the group is not rigorous or does not share the whole information; -Estimates are not in line with reality.

Since there is no effective tourism planning with binding character in Portugal, transforming the interventions in destinations through land-use plans in force and the guidelines contained in strategic plans produced with different territorial scales and by different entities. It is important to consider it, in addition to academic studies, where they have been applied, transposing their contributions to public management and the effective recognition of their capital gains in supporting decision-making and the sustained construction of the destination.

CONCLUSION

The increasing complexity of the operation of socioeconomic systems, the changes resulting from the behaviours and interests of the various stakeholders present and the dynamics that tourism has in its typologies, participants and formats of resources uses imply that the used methodologies are developed promoting collaboration and interaction between the different parties involved, recognizing their differences, strategies. The participation in a coordinated manner and interaction ability, proves to be of great importance against the doubts and questions that the destinations arise when making a decision or listing strategies and performance actions.

The Delphi methodology proves to be of great interest as a tool of prospective studies, despite the difficulties at the level of involvement of experts asked to participate in the investigation, which resulted in many cases, in a waiver concerning the integration in the research, a long period of data gathering, given the delay in sending the surveys. This technique promotes a

greater innovation ability and research creativity, because it is based on the possibility to generate ideas and action strategies for the group involved in the study process without physical presence, which can be optimized in terms of time and costs through Information and Communication Technology (ICT). It allows access to relevant information to support decisions, knowing the experts' perspectives and promoting consensus sets. In a context of great dynamics and innovation, as is tourism, destinations must try to find support tools that sustain the decision and allow to assess projects, initiatives and strategies, through quality information collection, contributions or perceptions of specialists to enable supporting decisions and actions to be undertaken or equate the logic of action.

REFERENCES

- BanaandCosta, Carlos. 1993. *Processo de apoio à decisão: Problemáticas, actores e acções*. Lisboa, CESUR.
- Cuhls, Kerstin. 2005. Delphi surveys, Teaching material for UNIDO Foresight Seminars.
- Dalkey, Norman and Helmer, Olaf. 1963. An experimental application of the Delphi Method to the use of experts. *Management Science*, 9(3), 458 – 468.
- Dalkey, Norman. C. 1969. *The Delphi method: An experimental study of group opinion*. Santa Monica, CA: The Rand Corporation.
- Dalkey, Norman et al. 1972. *La prévision a long terme par la méthode DELPHI*, Ed. Dunod, Paris.
- Dalkey, Norman. 2002. Toward a theory of group estimation. In H. A. Linstone & M. Turoff (Eds.), *The Delphi method: Techniques and applications [Electronic version]* (pp. 231-256). Newark, NJ: New Jersey Institute of Technology.
- Delbecq, Andre L., Van de Ven, Andrew. H., and Gustafson, David H. 1975. *Group techniques for program planning: A guide to nominal group and Delphi processes*. Glenview, Ill.: Scott, Foresman.
- Donohoe, Holly and Needham, Roger D. 2009. Moving best practice forward: Delphi characteristics, advantages, potential problems, and solutions. *International Journal of Tourism Research*, 11(5), 415–437.
- Fernandes, Gonçalo. 2010. *Aplicação da metodologia Delphi na definição de estratégias de gestão territorial*, Atas do 16º Congresso da APDR, Universidade da Madeira, Funchal.
- Fernandes, Gonçalo. 2013. *Coesão territorial e desenvolvimento turístico em espaços de montanha. Lógicas de governancia territorial e políticas públicas na cordilheira central*. Atas do IX Congresso da Geografia Portuguesa – Geografia: Espaço, Natureza, Sociedade e Ciência, pp 431-437, Associação Portuguesa de Geógrafos (APG), Lisboa, 2013. E-BOOK, ISBN:978-972-99436-6-9.

Fernandes Gonçalo and Ramos Delfina. 2025. Development of tourism destinations and application of prospective methodologies to support this management. *UTMS Journal of Geographical*. 1 (1): 76-89

Förster, Bernadette and von der Gracht, Heiko. 2014. Assessing Delphi panel composition for strategic foresight - A comparison of panels based on company internal and external participants. *Technological Forecasting & Social Change* 84, 215–229. 127

Garrod, Brian and Fyall, Alan. 2005. Revisiting Delphi: The Delphi Technique as a method of tourism research. In *Tourism Research Methods: Integrating Theory with Practice*, Ritchie, B. W.; Burns, P.; Palmer, C. (Eds), pp. 85-98.

Geist, Monica R. Using the Delphi method to engage stakeholders: A comparison of two studies. *Evaluation and Program Planning* 33, 147–154. 2010.

Godet, Michel. 1993. *Manual de Prospetiva Estratégica*. Lisboa: Publicações Dom Quixote.

Godet, Michel. 1997. *Manual de Prospetiva Estratégica: da antecipação à decisão*, Editora Dom Quixote, Lisboa.

Gordon, Theodore and Pease, Adam. 2006. RT Delphi: An Efficient, "Roundless", Almost Real Time Delphi Method. *Technological Forecasting and Social Change*, 73, p.321-333.

Häder, Michael and Häder, Sabine 1995. Delphi und Kognitionspsychologie: Ein Zugang zur theoretischen Fundierung der Delphi-Methode, in *ZUMANachrichten*, vol. 37, 19. November 1995, p.12.

Hatem, Fabrice, Cazes, Bernard and Roubelat, Fabrice. 1993. *La Prospective. Pratiques et méthodes*, Paris, Ed. Economica.

Kaynak, Eduard. 1994. Use of Delphi technique to predict future tourism potential. *Marketing Intelligence & Planning*, Vol. 12, n° 7, p 18-29, London, 1994.

Landeta, Jon. 1999. *El método Delphi. Una técnica de previsión para la incertidumbre*. Barcelona; Ariel.

Linstone, Harold and Turrof, Murray. 1975. *The Delphi method, techniques and applications*. Addison Wesley Publishing.

Linstone, Harold and Turrof, Murray.(Eds.). 2002. *The Delphi method: Techniques and applications [Electronic version]*. Newark, NJ: New Jersey Institute of Technology.

Monfort, Valmont. 1999. *Competitividad y factores críticos de éxito en los destinos turísticos mediterráneos: Benidorm y Peníscola*, Tesis Doctoral, Universidad de Valencia, Valencia, 1999.

Okoli, Chitu and Pawlowski, Suzanne D. 2004. The Delphi method as a research tool: an example, design considerations and applications. *Information & Management*, 42 (1). pp. 15-29. ISSN 03787206.

Fernandes Gonçalo and Ramos Delfina. 2025. Development of tourism destinations and application of prospective methodologies to support this management. *UTMS Journal of Geographical*. 1 (1): 76-89

Ramos, Delfina, Arezes, Pedro and Afonso, Paulo. 2012. Cost-benefit analysis in occupational health and safety: A proposal model. 11th International Probabilistic Safety Assessment and Management Conference and the Annual European Safety and Reliability Conference 2012, PSAM11 ESREL 2012, 2, pp. 1273-1282. Scopus Author ID 55576073800.

Ramos, Delfina., Arezes, Pedro and Afonso, Paulo. 2015. A Systematic Approach for Externalities in Occupational Safety through the use of the Delphi Methodology. Arezes et al. (eds), *Occupational Safety and Hygiene III*, Taylor & Francis Group, London, ISBN 978-1-138-02765-7, pp. 251-254.

Vergara, Sylvia Constant. 2005. *Métodos de Pesquisa em Administração*. São Paulo. Editora Atlas.

Warner, Laura A. 2015. Using the Delphi Technique to Achieve Consensus: A Tool for Guiding Extension Programs. <http://edis.ifas.ufl.edu/pdffiles/WC/WC18300.pdf>. (accessed August 10, 2015).