

UNIVERSIDADE DO ALGARVE
FACULDADE DE ECONOMIA

**LAKE-DESTINATION IMAGE ASSESSMENT: THE CASE OF THE
ALQUEVA LAKE, PORTUGAL**

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PhD Thesis in Tourism

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LAKE-DESTINATION IMAGE ASSESSMENT: THE CASE OF THE ALQUEVA LAKE, PORTUGAL

Doutoramento em Turismo

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Declaro ser a autora deste trabalho, que é original e inédito. Autores e trabalhos consultados são devidamente citados no texto e constam de referências incluídas.

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*Aos meus pais,
Conceição e Fernando*

*A todos os profissionais que trabalham no turismo com dedicação e empenho, mas por
vezes com muitas dificuldades...*

*Ao saudoso Professor Caldeira Pais por tudo o que nos transmitiu...o gosto por estudar
e entender o turismo*

ACKNOWLEDGEMENTS

First and foremost I would like to express my deepest gratitude to my supervisors Professor Antónia Correia and Professor Metin Kozak, who have been tremendous mentors to me during all this learning process. Thank you to both Professors for your trust during all these years and for not doubting for a moment that I could reach this stage. I really admire your work and it is a privilege for having you both as my supervisors. Professor Antónia, your joy and enthusiasm for research was contagious and motivational to me. Thank you for your constant encouragement and support from the very first moment and especially for being a proof that pragmatism, exigence and rigour is totally compatible with comprehension, patience and trust. Without you I would not be where I am today. From you I learnt dedication, hard work, respect and pushing forward... You are 'our light' ...please do not ever forget this. I am also very grateful to Professor Kozak for his illuminative guidance, academic suggestions and continuous efforts and encouragement throughout this period. Professor, during all this period and despite the distance (only geographically speaking), you were always present to make suggestions in order to strengthen the value of the work. And most of all, your feedback always had words of encouragement. I will not forget this. Thank you, Professor.

For this dissertation I would like to thank the Direction of PhD Program in Tourism at Algarve University, Faculty of Economics. It is a privilege to be a PhD student of this Program in Tourism. Special thanks to Professor João Albino Silva for leading this Program in Tourism and for always being available to answer our doubts, solve our problems and listen to our yearnings and wishes. A further thanks to all the teachers of this PhD Program for their academic qualifications and distinguished teaching skills, who have strongly contributed to our life-long learning process, and also for the excellent administrative support of the PhD Program.

I would also like to acknowledge Anja Tuohino for accepting to co-author the fourth Paper of this thesis, for her enlightening support. Lake Tourism as a research area would not exist without her work. It was really a pleasure to meet Anja personally in 2012 at the 5th ILTC (International Lake Tourism Conference) in Poland.

In regards to the 'team' of PhD students of Professor Antónia Correia, all of you have contributed immensely to my personal and academic time during this period. This 'team' has been a source of friendships as well as good advice and collaboration. The moments that we went through together, specially participating in international conferences, has contributed to what we have become today and we will definitely not forget it. Thanks to Helena Reis and Rosária Pereira for opening the path to all of us and for sharing their experience, Joana Dias and Rita Peres for not giving up...we did it; João Ferradeira for his good mood in K1 (our cottage) and his concern for where to eat since I am a vegetarian; Ricardo Silva for our conversations during our travels to Algarve and then to Lisbon; to Pedro Pimpão for the fun in the middle of Istanbul

looking for the conference venue: we were totally lost for 2 hours... I am especially grateful to my colleague and friend Jaime Serra for always being available, for his encouraging words and also for our long and interesting talks about tourism (almost 20 years!). First, as my tourism student, then as a colleague working together and finally as a PhD partner. I hope we have 20 years more with fresh thoughts and ideas...the body may age, but the spirit never does. Thank you, Jaime...

I also thank the 'tourism' colleagues from my institution for their words. I hope that tourism as a field of knowledge continues to find its path grounded on an interdisciplinary perspective. A special thanks to Maria Basílio, my colleague and friend for sharing these (long!) years in Beja. Thanks is also due to Miguel Moital for his presence, despite the distance, during this journey. ESHTTE was definitely important for us.

I would also like to express my gratitude to Carolina and Luis for their valuable contribution in this work. You were at the right time in the right place. I hope that you keep good memories of this experience.

A special word of gratitude and appreciation to Dave Tucker for proofreading all the Papers in this thesis. Deciding to write in English was a tremendous challenge for me, but with your help Dave, it was much easier. Thank you for your tremendous professionalism. This thesis is also part of you, Dave.

I thank Joseph K. Woelfel, the CATPAC software author, for all his constructive support and insightful comments during the use of the prototype version of the programe.

I am thankful to all the tourism professionals I interviewed, so full of stories and knowledge to share. What would tourism in Portugal be as an economic activity without all these small and medium enterprises, which face many obstacles, despite which they are so professional? This is why this thesis is also dedicated to them.

Lastly, I would like to thank my family for all their love and encouragement. My deepest gratitude goes to my parents, Conceição e Fernando, and I dedicate this accomplishment to both. Your generosity and commitment to giving me the best education possible is incomparable. Without your constant love, guidance and encouragement I would not be where I am today. I am very proud for what you have achieved in your life. Beginning a new life in a totally new country and with a two-year-old child was not an easy task. Your constant concern to provide comfort and a well-balanced environment despite all the difficulties was worth it!

Also this journey would have been much more difficult without the love and support of my husband and our two sons. Nuno, my dearest husband, always radiating support, good energy and unconditional presence in my life. Most of all, thank you for being there all the time and for sharing with me this enthusiastic journey in life. I'm so glad our paths crossed in this world. I am also grateful to my kids, Filipe and André who

were born during this PhD journey, for helping me to see and accept that “patience is the calm acceptance that things can happen in a different order than the one you have in mind.” (David G. Allen). Thank you both, especially for your beautiful smiles. Finally, extended thanks for the rest of my family for all the good moments in my life. To my cousins Jaime and Fátima for letting me stay in their home during the PhD classes. This allowed me to breastfeed my youngest son André. Thank you, my dearest godparents... for being part of my life.

Thank you all. These acknowledgments are simply an attempt to register a moment in time.

ABSTRACT

The thesis is about exploring the main image attributes that might potentially influence lake-destination areas (LDA), and simultaneously, contribute to conceptualizing and defining lake tourism as recent research area (Hall and Härkönen, 2006). Lake tourism is a growing academic sub-field of tourism studies with an emerging body of literature. However, little research attention has been given to lake-destinations' projected or perceived tourism images (Tuohino, 2006). In fact, this topic has been completely absent from destination image (DI) studies over the last 45 years of research. The study site is the newly-formed Alqueva Lake, the biggest man-made lake in Europe, located in the Alentejo region, Portugal. Due to the goal of this thesis, a mixed-method design was adopted (Creswell and Plano Clark, 2011), particularly a *complementarity* approach (Greene *et al.*, 1989). The data were first collected in the qualitative stage, then analysed, and the information was used to develop a follow-up quantitative phase of data collection. Thus, the methodological approach is comprised of a three-phase model with (i) the preliminary phase to specify the domain of the constructs and identify the main DI attributes in existing literature; (ii) phase one to extract image attributes more related to LDA and explore lake tourism concept; (iii) phase two to assess the applicability of items/attributes in an existing LDA, and (iv) phase three to test the LDI model. The results suggest a feasible image for LDAs is depicted. A set of image variables that best describe the Alqueva Lake as an LDA was obtained and validated by the industry side and tourists. These results bring useful implications for destination management organizations (DMO), since image building, brand creation and marketing positioning might be set up. A strategy focused on selling 'waterscapes' could be implemented in the future in the Alentejo region.

Keywords: Destination Image, Lake-Destination Area, Lake-Destination Image, Attribute-Based Model, Photo-Based Model, Alqueva Lake.

RESUMO

Esta tese aborda a temática da medição de imagem de destinos turísticos, mais concretamente de destinos de lagos, procurando compreender a natureza e características de uma área de investigação recente em turismo como a do ‘turismo de lagos’. O estudo da criação de ‘imagem de destinos’ conta com quase 45 anos de investigação e a temática ‘turismo de lagos’ tem estado ausente dos estudos publicados neste domínio (Erkkilä, 2006; Tuohino, 2006), não obstante a sua relevância. Neste sentido, o presente trabalho pretende dar um contributo teórico e empírico com vista ao reconhecimento e posterior consolidação do ‘turismo de lagos’ como área de investigação relevante nos estudos do Turismo, em particular no sub-domínio do marketing de destinos.

A revisão da literatura a propósito da ‘imagem de destinos’ evidenciou duas tendências da década de 2000 (Stepchenkova e Mills, 2010). Por um lado, com o surgimento de novos destinos e tipologias de turismo tem-se vindo a assistir a uma expansão geográfica nos estudos de imagem de destinos (tradicionalmente América do Norte e Europa novas localizações - países ou cidades – novos espaços geográficos emergem como temáticas de estudo como Ásia ou América do Sul); paralelamente surgem novas formas de turismo e atrações como objeto de estudos de imagem, como o caso do turismo rural (e.g. Kastenholz, 2002), de montanha (Silva *et al.*, 2013), destinos de jogos (Kneesel *et al.*, 2010) ou determinado tipo de eventos (King *et al.*, 2012). Por outro lado, novos métodos e técnicas de medição de imagem têm sido usados, com particular incidência na adoção de uma abordagem qualitativa na década de 2000 (e.g. Ryan and Cave, 2005). Novas técnicas emergem assentes não apenas em informação textual, mas também em elementos visuais (MacKay e Fesenmaier, 1997), enquadrado num novo referencial de processamento de informação baseado nos sentidos e emoções (MacInnis e Price, 1987). Desta análise de literatura resultou que a adoção de métodos mistos (Jenkins, 1999) na medição de imagem de destinos (qualitativos vs quantitativos), dada a natureza complexa do constructo em causa (‘imagem de destinos’), tem vindo a ganhar expressividade (e.g. Martín e Rodríguez del Bosque, 2008; O’Leary e Deegan, 2003; Rolo-Vela, 2009).

Desta forma, e considerando que o Lago do Alqueva, o maior lago artificial da Europa, é um novo recurso localizado na região do Alentejo, surgiu a seguinte questão de

partida: *“Dado que o Lago do Alqueva se encontra numa fase bastante inicial de criação de um destino de Lagos, de que forma a ‘imagem’ como uma ferramenta do marketing importante para o desenvolvimento de destinos, pode dar um contributo nesta fase inicial do processo?* A linha de pensamento assenta no pressuposto de que a criação da melhor imagem é um fator relevante para o desenvolvimento de destinos, uma vez que permite trabalhar o seu posicionamento num mercado cada vez mais global e competitivo (e.g. Font, 1997; Morgan e Pritchard, 1998), mais ainda em destinos em início de ciclo de vida, como o caso do Lago do Alqueva.

Neste sentido, esta investigação assenta em quatro objetivos gerais:

1. Investigar e delimitar as bases teóricas e o mapa conceptual da tese, explorando em profundidade as duas áreas do conhecimento centrais desta investigação: a ‘imagem de destinos’ como uma área consolidada e o ‘turismo de lagos’ como área emergente;
2. Explorar, avaliar e caracterizar a natureza da imagem de destinos de lagos e identificar dimensões e atributos de imagem específicos desta tipologia de destinos;
3. Testar um modelo de formação de imagem de destinos de lagos, com vista a propor e medir dimensões e atributos de imagem específicos desta tipologia de destinos;
4. Refletir e propor linhas de estratégia e ação a implementar no futuro com vista a melhorar a imagem, posicionamento e vantagens competitivas de destinos de lagos em particular, o Lago do Alqueva, como o maior lago artificial da Europa.

Com base na revisão de literatura e por forma a responder aos objetivos gerais acima indicados, sete objetivos específicos foram definidos correspondendo aos sete artigos que compõem esta tese. No total doze eixos de investigação foram determinados, os quais traduzem as várias etapas de desenvolvimento da investigação. A investigação empírica recorre a métodos mistos (Cresswell e Plano Clark, 2011), em particular num primeiro momento a uma metodologia qualitativa para, posteriormente, avançar para uma metodologia quantitativa. Numa fase preliminar, a revisão de literatura ajudou a definir o quadro conceptual assente em duas áreas de investigação: ‘turismo de lagos’ e ‘imagem de destinos’. Verificou-se que cada uma se encontra em etapas de desenvolvimento científico diferentes. No caso do ‘turismo de lagos’ a conceptualização

nesta área de estudo é ainda imatura existindo necessidade de explorar, verificar e desenvolver teoria; no caso da ‘imagem de destinos’ é de registar quatro décadas de produção de conhecimento, onde novas áreas e tendências emergem (Stepchenkova e Mills, 2010).

Como primeira etapa de investigação, a adoção de uma abordagem qualitativa revela-se oportuna com vista a explorar o turismo de lagos como campo de estudo e extrair atributos de imagem mais relacionados com esta nova tipologia de destinos. O método usado foi a análise de conteúdo (abordagem dedutiva e indutiva) de textos e fotografias de destinos de lagos. A aplicação de métodos visuais em estudos de imagem está relacionada com a “viragem pictográfica” (Feighey, 2003), iniciada em finais da década de 90 (Mackay e Fesenmaier, 1997) e com uma crescente produção científica na medição de imagem de destinos recorrendo a elementos visuais (e.g Fairweather e Swaffield, 2002; Greaves e Skinner, 2010; Hsu e Song, 2013). Numa segunda etapa, caracteriza-se a imagem de destinos mais direcionada a destinos de lagos já com base num objecto de análise, recorrendo a realização de entrevistas a profissionais da indústria que exercem actividade no Lago do Alqueva. O propósito é o de validar os atributos de imagem e explorar novos atributos. Neste caso várias técnicas são usadas como o ‘checklist’, o ‘free-elicitation’ (Reilly, 1990) e ‘photo elicitation’ (Harper, 2002; Schwartz, 1989). Em simultâneo, questões abertas são colocadas aos entrevistados e análise de conteúdo realizada, recorrendo a métodos de codificação como o ‘estrutural’, ‘descritivo’ e ‘tematização’ (Namey *et al.*, 2008; Saldaña, 2009). Finalmente, numa última etapa da investigação e com base na informação proveniente da fase qualitativa, adota-se uma pesquisa quantitativa determinística onde hipóteses de partida foram respondidas pela análise de relação entre variáveis. Nesta fase, um modelo de formação de imagem de destinos de lagos é proposto e testado.

As questões de investigação que suscitaram o início deste estudo: O que é o turismo de lagos e destinos de lagos?; Quais os atributos de imagem relacionados com esta recente tipologia de turismo?; Quais os atributos associados à imagem do Lago do Alqueva como um destino em início do seu ciclo de vida?, configuram um objetivo último: contribuir para o enriquecimento teórico e empírico de uma área de investigação muito recente, o ‘turismo de lagos’ (Hall e Härkönen, 2006), com enfoque na área de marketing de destinos e criação de imagem (Erkkilä, 2006). Neste sentido, os resultados da análise qualitativa revelam um conjunto de atributos de imagem mais relacionados

com destinos de lagos agrupados em nove dimensões (categorias) de imagem de acordo com a escala de Beerli e Martín (2004) e 23 subcategorias de imagem. Em simultâneo, cinco dimensões do conceito de ‘turismo de lagos’ são extraídas e analisadas. Este elemento permite compreender melhor a natureza da imagem deste tipo de destinos a até perceber quais as decisões estratégicas mais indicadas a tomar no futuro na gestão e promoção do destino. No que diz respeito aos resultados da análise quantitativa, um modelo de formação de imagem de destinos de lagos é proposto. A aplicabilidade de uma estrutura de imagem para este tipo de destinos foi testada e validada, onde a componente mais psicológica de imagem é realçada através da dimensão “atmosfera”.

As implicações teóricas surgem ao nível do contributo para a área de ‘imagem de destinos’ ao propor um novo objeto de estudo após 45 anos de investigação, os destinos de lagos, com particular enfoque num novo recurso para Portugal, o Lago do Alqueva. A par disso, o cruzamento de abordagens e metodologias na medição da imagem de destinos é salientada neste estudo, com especial atenção à ‘imagem pictorial’. As implicações práticas revelam-se importantes na medida em que salientam a especificidade deste tipo de destinos com consequências na escolha da estratégia de marketing e promoção mais indicada. Uma estratégia comunicacional focada na ideia de “waterscapes” deve ser implementada, sobretudo no Lago do Alqueva em início do seu ciclo de vida, cruzando produtos turísticos (turismo cultural, enogastronómico, natureza, entre outros) sob o conceito do ‘Lago’ como “umbrella”. Algumas limitações derivam do facto dos atributos de lagos testados circunscreverem-se a um destino em particular e a um mercado específico do Alentejo, o mercado interno (portugueses). Todavia, este estudo deverá ser replicado a outros destinos de lagos e propor no futuro uma escala de imagem a aplicar e validar neste tipo de destinos. O desenvolvimento de uma tipologia de destinos de lagos no futuro revela-se igualmente uma área a explorar, dado que os lagos são muito diferentes (origem, dimensão, profundidade). No que se refere ao Lago do Alqueva, o estudo avança com a necessidade de desenvolver a curto prazo análises de benchmarking (Kozak, 2002) que estudem e analisem processos de desenvolvimento turístico e resultados obtidos em destinos de lagos mais consolidados.

Palavras-Chave: Imagem de Destinos, Destino de Lagos, Imagem de Destinos de Lagos, Medição de Imagem, Lago do Alqueva.

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ABBREVIATIONS LIST

ABI	Attribute-Based Approach
AMOS	Analysis Moment Structure
ATTGLA	Association of the Alqueva Evolving Municipal Areas in Portugal and Spain
ASV	Average Shared Squared Variance
AVE	Average Variance Index
CATA	Computer-aided Text Analysis
CCDRA	Coordination Commission of Regional Development of Alentejo
CFA	Confirmatory Factor Analysis
CR	Composite Reliability
DI	Destination Image
DMO	Destination Management Organization
EC	European Commission
EDIA	Alqueva Development and Infrastructures Company
ERT	Regional Tourism Organization for Alentejo and Ribatejo
HBR	Houseboat Renting
IPA	Portuguese Environment Agency
LDA	Lake-Destination Area
LDAs	Lake-Destination Areas
LDI	Lake-Destination Image
LT	Lake Tourism
MA	Multidisciplinary Approach
MAP	Multipurpose Alqueva Project
MSV	Maximum Shared Variance
PBI	Photo-Based Image
POAAP	Spacial Planning of Alqueva and Pedrogão Reservoirs
SCI	Sites of Community Importance
SEM	Structural Equation Modelling
SPA	Special Protection Area
SPC	Passenger Cruises
TGLA	Alqueva Lake Great Lands
UA	Unidisciplinary Approach
UC	Umbrella Construct
UNESCO	United Nations Educational, Scientific and Cultural Organization
WebQDA	Web Qualitative Data Analysis

CHAPTER 1

INTRODUCTION

1.1. Background of the Research

Lakes offer a naturally defined core resource for tourism development. There are several examples of lake-based destinations around the world, where regional or local attractions are mainly based on a lake resource (Hall and Härkönen, 2006). The idea of this thesis came about through the participation of the current PhD candidate in October 2003 in Lake Ohrid, Republic of Macedonia, at “Educating for Tomorrow’s Tourism” an International Scientific Conference of Tempus-Phare Joint European Project. At that Conference, the results of the Lake Tourism Project (2001-2003) developed by the University of Joensuu (since 2010 University of Eastern Finland) were presented as a best practice benchmark. Curiously, this project can be considered the starting point of lake tourism as a research area. At that time the term ‘Lake Tourism’ was scarcely used among researchers (Tuohino and Lóránt, 2012). One of the aims of this Conference was to interact and learn from the Lake Tourism Project in order to have a point of reference to develop Lake Ohrid (one of the oldest and deepest lakes in Europe) in terms of tourism activity. In fact, it was actually during this Conference that the incubation idea about studying Lake Tourism as a research area applied to the Alqueva Lake, Portugal, came about.

It is worth to mentioning that on February 8th in 2002 the dam gates of the Alqueva Reservoir were closed and reservoir started to fill up. In the case of Alqueva, the establishment of a new reservoir in 2002 has resulted in a lake resource, considering the fact that it comprises several recent attractions contained in the nature, culture and community of the lake, generating new possibilities for tourism development. Presently, the Alqueva Lake is the largest reservoir in Europe (surface area 250km²; maximum depth 99m; shoreline 1200 Km; length 82 km). In fact, like natural lakes, the importance of reservoirs for social and economic development has been already demonstrated (Katarzyna *et al.*, 2010). This new resource gave to the Alentejo region a total new existence economically and environmentally speaking. At the same time, a rising multidimensional research topic has emerged (Hall and Härkönen, 2006; Tuohino and Lóránt, 2012) since,

Lacustrine tourism systems therefore include the lake, the foreshore and those amenities, facilities and infrastructure in the surrounding region that support the role of the lake as a tourist attraction. (...) Indeed, the idea of lake

tourism reinforces the idea that there are certain geographical entities that, because of their particular environmental characteristics are often designated as a separate type of tourism in which the specific environment serves to attract particular activities and which serve to convey certain environmental images as part of destination promotion. Therefore, lake tourism can be distinguished and therefore understood, in much the same way that alpine or forest tourism have been recognised as a subfield of tourism studies. (Hall and Härkönen, 2006:4,5)

Aiming to investigate the Alqueva Lake as a totally new lake-destination area (LDA) the awareness of the complexity of this structure soon emerged, since the management of any lake requires an integrated management approach. Tourism development, marketing management and promotion of the lake are among several elements to be considered when developing a lacustrine system. As Buhalis (2000: 101) pointed out “understanding and appreciating the type of destination enables marketers to develop suitable destination marketing mixes and deliver them to the appropriate target markets”.

This study presupposes then that due to the complexity of a lacustrine tourist system the destination image (DI) as a component of that system, owing to its simplicity, dynamism, versatility, and capacity to integrate several factors, might represent a key element for the development and management of this type of destination. Simultaneously, this study is framed by the premise that image as a marketing variable might actually influence the tourism development of a certain destination. Correia *et al.* (2010) posit that the probability of choice by tourists is strongly affected by different attributes related to destination characteristics, among other variables. Notable milestones include Hunt’s (1975: 1) work for whom “the perception held by potential tourists about an area have significant influences upon the viability of that area as a tourist-recreation area”. Others authors followed this line of thought (*e.g.* Chon, 1991; Crompton, 1979; Echtner and Ritchie, 1991), for Font (1997: 123) “a tourist destination’s image is one of the most important strategic tools for creating and sustaining tourist destinations” and Tasci *et al.* (2007: 194) updated this when they stated that “the results of tourism image research are used by marketers to conduct intelligent destination marketing (...) important decisions regarding planning,

development, positioning, and promotion depend on these results”. Image analysis and management is, in fact, a key tool for destination competitiveness. In sum, image is considered a key construct in destination positioning, conclude Pike and Ryan (2004), and destinations should be oriented to target positioning in their own competitiveness set (Kozak and Rimmington, 1999). This has been the research territory of the DI construct, which over the last forty five years has been demonstrating its interest and relevance both academically and practically.

Given this and also considering the fact that the Alqueva Lake is at the very beginning of its life cycle, an image study may in fact act as a support element for lake management as a key tool for positioning, differentiation and promoting the destination in a growing competitive world. It follows that the findings of this study will contribute to a better understanding of which image factors are important for the creation of an lake-destination image (LDI), in order to improve the LDA competitiveness. Indeed, a “successful lake-destination area marketing is tied to a strong destination image” (Erkkilä, 2006:211). Actually, the fact that the regional tourist organization of Alentejo is now defining a vision and a strategy for the Alqueva Lake until 2010 entirely justifies and validates the present study. A preliminary SWOT (Strengths, Weakness, Opportunities and Threats) analysis of the Alqueva Lake was undertaken revealing this lake has in fact potential for tourism (ERT, 2015). In this thesis, the literature review section shows a timeline for the brief history of the Alqueva Lake as an LDA with the multiple decisions and management structures that make part of this process which started in 2002. In fact, there are multiple organizations involved in this process and a lack of coordination. Under these facts and circumstances, one of the aims is to implement the findings of this thesis in the future for the tourism industry, considering the stage of development of the Alqueva Lake as a lake-destination (Butler, 1980). This thesis assumes that a DI is not only seen as a consequence of the lake management system, but might even contribute to its efficacy. In other words, DI as an important element of the tourism development process is a result and also determines that process.

In addition and regarding DI as a research field, studies have been mostly focused on the 1980s and 1990s on a geographical scope, with North America and European countries prevailing (Pike, 2002). However, other countries started to gradually take part in DI research and a new trend emerged in the 2000s. DI of non-traditional entities such as regions (Kastenholz, 2002; Silvestre and Correia, 2005), cities (Sahin and

Baloglu, 2011), resorts (Alcañiz *et al.*, 2009) or even events (King *et al.*, 2012) started to be assessed. It was a shifting focus that marked the path of DI research within an evolutionary perspective from traditional objects of DI research like countries to non-traditional entities (Stepchenkova and Mills, 2010).

Framed by this trend, DI of specific types of tourism and destinations also started to be investigated such as mountain tourism (Silva *et al.*, 2011), gaming tourism (Kneesel *et al.*, 2010) or rural-cultural excursion destinations (Rolo-Vela, 2009). In fact, a large number of studies have been assessing DI in general, but few have attempted to measure it for any specific context. The travel context has not been very explicit in most of the studies (Pike, 2002), which might suggest that the characteristics of a specific destination have not been taken into consideration when an image assessment occurs. In this case, lake tourism and LDAs have been completely absent from DI studies, which justifies the need for a DI study related to a recent type of tourism. To date and particularly related to lake destination image, it is worth mentioning the only studies published in this field (Tuohino and Pitkänen, 2004; Tuohino, 2006). Yet, it becomes imperative not only to assess the image of this particular type of destinations, but additionally to identify and examine the main characteristics and dimensions of LDA that might give a theoretical contribution to a new form of tourism research, in this case Lake Tourism.

1.2. Aims of the Thesis

In response to the previous observations and concerns, this thesis was mostly guided by a sense of commitment in taking this opportunity to investigate the Alqueva Lake as a new resource for tourism development. In this sense, and considering that this lake is at the very beginning of its life cycle, it seems reasonable at the present moment to get to a clearer picture of the characteristics and particularities of lake tourism. Therefore, this thesis also attempts to contribute to enrich lake tourism as a recent typology of tourism and as a new field of tourism studies.

Framed by this discussion this thesis soon posed the following question: *Since the Alqueva Lake is at the very beginning as an LDA, how can image as a marketing tool contribute to this process?* Having this as a starting point, a line of reasoning emerges

based on depicting potential image variables that might contribute to the development of lake tourism, particularly LDAs, with the Alqueva Lake as the study site. In other words, this thesis posits that an image assessment study of a recent type of tourism, such as lake tourism, presupposes a deeper understanding of the characteristics and dimensions of this particular typology. Further, since there is an absence of information concerning the characteristics of lake tourism in general and the dimensions and attributes involved in the formation of a LDI in particular, four general goals were primarily defined:

1. To define the theoretical bases of this thesis and the conceptual frame of reference, particularly by investigating the two main domains of this study: DI and lake tourism;
2. To investigate the nature of lake-destination image and identify a set of image variables that might form the image of LDAs;
3. To test a model of the formation of LDI in order to assess image dimensions and propose a set of image variables that create the image of this type of destinations (LDAs);
4. To discuss and propose courses of action that might be implemented to improve the image, positioning, and competitive advantages of LDAs, particularly applied to the Alqueva Lake as the biggest man-made Lake in Europe.

A first step of an on-going process, especially in the case of a PhD thesis by publications, was set up through the four general objectives mentioned before. However, a list of more detailed research purposes (RP) should be considered in order to better understand the sequence of the seven Papers that compose this thesis. (see Figure 1.5 in section 1.4)

RP1: To undertake a preliminary approach into the multiple nature of the DI construct by establishing a pre-theoretic specification of the main domain of study (*covered in Paper 1*);

RP2: To critically review the DI construct by proposing the life-cycle model as the appropriate framework for an evolutionary analysis and propose DI as an ‘umbrella construct’, in order to identify and depict the main DI theories and how to measure the construct (*covered in Paper 2*);

RP3: To present and characterize the potential of the Alqueva Lake for lake tourism as the study site, which is at the very beginning of the life-cycle as an LDA and, simultaneously, examine lake tourism as a recent sub-field of tourism studies (*covered in Paper 3*);

RP4: To identify and depict image attributes more specifically related to lake tourism and LDAs, and simultaneously, contribute to conceptualizing and defining lake tourism as a recent sub-field of tourism studies (*covered in Papers 4 and 5*);

RP5: To depict an image which is feasible for lake tourism destinations, through the case of the Alqueva Lake, validated by the industry side (*covered in Paper 6*);

RP6: To propose a model of LDI with a set of image variables, test it at the Alqueva Lake and discuss some implications for developing a destination image strategy (*covered in Paper 7*);

RP7: To assess tourists' perceptions about the Alqueva Lake as an LDA and define the beginning characteristics and behaviour of lake tourists (*covered in Paper 7*).

Although the research process is composed of several stages, inherently the path of this thesis is grounded on a circular and nonlinear process, where the process itself is continuously reconsidered, redefined, and reformulated. The purpose is also to emphasise the iterative nature of the research process (Blessing and Chakrabarti, 2009). The following section discusses the major theoretical fields of this research - destination image and lake tourism - since some topics might not be completely covered and explained in the Papers due to the word limitation imposed by journal guidelines.

1.3 Theoretical Insights

The present research is anchored on the intersection of two main research areas: destination image and lake tourism. The former has reached four decades of research (see Paper 2) framed by destination marketing as a sub-field of tourism marketing

studies; the latter, lake tourism, is a new field of studies (see Papers 3 to 7), with a decade of some multidisciplinary studies, where the marketing perspective is still unexplored.

1.3.1 Destination Marketing and Destination Image

Despite all the valuable resources that a place can have which might contribute to their competitiveness in the world market, it is a 'strategic place marketing', considered as the "most adaptive and productive approach to the problems of places" (Kotler *et al.*, 1993: 20). The challenge with this 'fresh approach', according to the authors, was to build up the capacity of regions to adapt to a changing marketplace, embrace opportunities, and sustain their vitality. This approach is considered as a milestone in marketing research and brought to the stage 'destination marketing' a new field of marketing studies. Nowadays it is possible, for instance, works such as Pike and Page (2014) provide a narrative analysis of the first forty years of destination marketing literature.

For tourism studies, destination marketing is considered as the core of tourism marketing (e.g. Heath and Hall, 1992; Middleton and Clarke 2001; Seaton, 1996). At the end of the 1980s and during the 1990s researchers recognized 'destination marketing' as a new subfield of tourism marketing studies. When Middleton (1989) defined the tourism product as a combination of all the service elements which a tourist consumes, a total rather than an individual experience, an expectation, or even a mental construct, this was the rise of a new line of investigation regarding marketing countries as tourism destinations. A central proposition of Middleton and Clarke (2001) lies in the need to fully understand not only the common, but mainly the particular characteristics of the tourism product in order to have the best marketing strategies and actions. The rationale here is that marketing a destination is not exactly the same thing as marketing goods or even other kind of services. Seaton (1996) also corroborated this line of thought when highlighted the need to understand the distinctive features of destination marketing. Seaton (1996: 351) begins his approach by discussing some fundamental characteristics of destinations, i.e. "destination is not just something that actually exists; it is also what is thought to exist, a mental concept in the minds of tourists (...)".

Buhalis' work (2000) was definitely a milestone in this line of thinking by providing a comprehensive framework for destination marketing due to the complexity of relationships of local stakeholders. According to him, when marketing a destination marketers should first analyse and understand the type of destination (e.g. urban, rural, alpine or lake tourism in the case of this thesis), and also appreciate the stage of development in terms of the life cycle concept. In the case of lakes as a part of a destination product, the geographical location of a lake is of utmost importance for the tourism development process. There are lakes located near mountains (e.g. Switzerland, Northern Italy), others located in distant islands (e.g. Iceland), others that cross different countries (e.g. the Great Lakes), a single lake (Lake Balaton in Hungary) or a Lake District (in the UK), which means that different types of lakes will require different types of strategies for tourism development. The lake is seen as the nuclear resource of the destination that might be seen as a driving force for the development of other tourism products (gastronomy, culture, nature, among others) depending on the characteristics of the territory where the lake is located. In fact, there are lakes which are well positioned are tourism destinations in the global market; others are only the lake itself, as the natural resource, but without yet having a well-developed supply and organizational component. For that reason, the life cycle of Butler (1980) is considered by Buhalis (2000) as a guide for strategic planning when marketing a destination. The destinations are totally in different stages of the life cycle. Yet, it is framed by the rationale that tourism in general and destination in particular is a distinctive product that needs to entirely apprehend that perceptions and image are important elements to be considered in any tourism development process (Morgan and Pritchard, 1998). Destination image was then recognized as an important subfield of destination marketing as the next section will detail.

1.3.2 Destination Image: Concept, Dimensions and Measurement

The present research is anchored on DI theory produced since the early 1970s. Hunt's (1975: 1) prominent work was decisive for the materialization of DI studies when he stated that "(...) it is possible that images, as perceived by individuals in travel market, may have as much to do with an area's tourism development success as the more tangible recreation and tourism resources". Since that time DI has been a vigorous

research area, which have been building theory and producing results as illustrated in Paper 1 and 2. There are many contributions in the literature to the destination image construct. Paper 2 illustrates fundamental definitions of DI as the main construct of this thesis between the 1970s and the 1990s. Table 1.1 reckons this definitional approach.

Table 1.1 - More Recent Definitions of Destination Image

Authors (date)	Definition
MacKay and Fesenmaier (1997)	A composite of various products (attractions) and attributes woven into a total impression. Differences in meaning, number, and importance of dimensions may occur (p.538).
Murphy, Pritchard and Smith (2000)	A sum of associations and pieces of information connected to a destination, which would include multiple components of the destination and personal perception (p.45).
Kim and Richardson (2003)	Totality of impressions, beliefs, ideas, expectations, and feelings accumulated towards a place over time (p.218).
Boo and Busser (2005)	Refers to the manner in which the perceptions of numerous individual attributes are integrated to become the image of an entity (p.56).
Tasci <i>et al.</i> (2007)	An interactive system of thoughts, opinions, feelings, visualizations, and intentions toward the destination (p.200).
Martín and Rodríguez del Bosque (2008)	Destination image should be considered a multi-dimensional phenomenon that includes not only beliefs or knowledge about the place's attributes, but also the individual's feelings toward the tourist destination (p.265).
Rolo-Vela (2009)	Created through a combination of what is communicated by the destination and what is understood by the tourist, who views the destination through filters of perception and emotional response (p.419).
King <i>et al.</i> (2012)	An interactive construct of objective knowledge, subjective impressions, prejudice, imaginations and emotional thoughts toward a destination, held by individuals, which will influence their behavioral intentions (p.6).

Source: Own Elaboration.

Terms such as “organized representations”, “sum of beliefs, ideas”, “complex combination”, “overall impression or attitude” and, “visual or mental impression” have been used to define it. More recently, in the 2000s, a still greater number of researchers agree that image is an “overall impression” or a “combination” as Table 1.1 illustrates. In sum, one of the main conclusions from the literature review process that literally unrolled the entire process of elaboration of this thesis is that several authors (e.g. Gallarza *et al.*, 2002; Tasci *et al.*, 2007, among others) still recognize (after forty-five years of research) the lack of theoretical framework, stressing the difficulty in the operationalization of this construct.

An examination of the main DI attributes was then required in order to investigate this complex construct. A meta-analysis papers concerning DI as a field of research since

the emergence of the construct in the 1970s was considered. Having as a base line the list of the most common DI attributes proposed by Gallarza *et al.* (2002), an extension of the period was considered (2000 to 2012). As a result, 24 studies were analysed that measure attribute-based image as depicted in Figure 1.1 The outcome reveals that ‘resident’s receptiveness’, ‘price, value and cost’, ‘culture attractions’, ‘landscape surroundings’ and ‘various activities’ were the most cited attributes, providing groundwork for further study (e.g. Chaudhary, 2000; Correia and Pimpão, 2008; Obenour *et al.*, 2005; Tasci, 2009, among others). In fact, both types of attributes seem to be important, functional and psychological.

Figure 1.1 - Attributes used in DI Studies between 2000-2012

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Authors (year)																				
1. Chen and Hsu (2000)	x	x	x				x			x	x	x	x						x	
2. Chaudhary (2000)			x	x		x	x		x			x					x		x	
3. Baloglu and Mangaloglu (2001)		x		x	x		x				x	x	x				x		x	
4. Chen (2001)	x	x	x				x				x	x	x	x			x	x	x	
5. Rezende-Parker <i>et al.</i> (2003)	x	x	x	x		x	x		x					x	x					
6. Hsu <i>et al.</i> (2004)	x	x		x		x				x		x	x	x	x				x	x
7. Pike and Ryan (2004)	x	x					x	x		x		x	x		x				x	
8. Bonn <i>et al.</i> (2005)	x								x			x	x		x	x			x	x
9. Kim and Morrison (2005)	x			x												x				
10. O’Learly and Deegan (2005)		x		x	x				x			x	x	x					x	
11. Obenour <i>et al.</i> (2005)			x	x					x		x				x				x	
12. Boo and Busser (2005)	x		x			x			x	x	x	x							x	
13. Hernandez-Lobato <i>et al.</i> (2006)	x	x				x		x	x				x	x						x
14. Grosspietsch (2006)	x		x						x			x			x	x	x			
15. Castro <i>et al.</i> (2007)				x	x	x				x	x		x				x		x	
16. Tasci and Holecek (2007)		x	x						x			x					x		x	
17. Alcaniz <i>et al.</i> (2009)	x	x	x	x	x	x		x	x	x	x	x	x	x	x				x	x
18. Prayag (2008)	x	x	x	x	x	x			x	x	x	x	x		x	x			x	x
19. Correia & Pimpão (2008)		x	x	x	x	x	x	x	x		x		x	x	x				x	
20. Rolo-Vela (2009)		x		x		x	x				x	x		x					x	
21. Tasci (2009)		x	x	x	x		x		x		x	x				x			x	x
22. Alaeddinoglu and Can (2010)	x	x	x	x	x	x	x		x		x	x	x		x	x			x	
23. Shani <i>et al.</i> (2010)	x			x	x	x	x		x		x	x	x		x				x	
24. Jeong and Holland (2012)	x	x	x	x	x	x	x		x				x	x		x			x	
TOTAL	15	16	14	16	10	13	12	6	14	7	13	18	15	9	11	12	2	20	0	6

Attributes: A. Various activities; B. Landscape surroundings; C. Nature; D. Culture attractions; E. Nightlife and entertainment; F. Shopping facilities; G. Information available; H. Sport facilities; I. Transportation; J. Accommodation; K. Gastronomy; L. Price, value and cost; M. Climate; N. Relaxation vs Massification; O. Accessibility; P. Safety; Q. Social interaction; R. Resident’s receptiveness; S. Originality; T. Service quality

Source: Own Elaboration. List of attributes adapted from Gallarza *et al.’s* classification (2002).

Despite the growing number of studies related to DI as the literature review demonstrated, very little is known about destination marketing and image applied to the lake tourism context (Tuohino, 2006). A large number of studies assess DI in general, but few have attempted to measure it for any specific context (Pike, 2002). Moreover, research investigating image attributes specifically related to LDA is limited. For this reason, the present study focuses on this particular type of destination, depicting image attributes more related to lake tourism and LDAs.

The following considerations were deduced from the literature review:

1. Destinations under study were primary large-scale entities, mainly countries. However, new entities such as cities, theme parks, types of tourism are emerging in the literature;
2. There is a lack of consensus about which attributes should be selected and included in DI scale;
3. Several authors continuously mention the lack of a standardized scale instrument for DI construct (Echtner and Ritchie, 1991, 1993; Tasci *et al.*, 2007). Others strongly advocate a standardized scale (Deslandes *et al.*, 2006). Nevertheless, as Rolo-Vela (2009) concluded, three scales are considered to be reliable and valid: those found in Echtner and Ritchie (1993), Baloglu and McCleary (1999), and Beerli and Martín (2004);
4. It will probably be difficult to achieve a standardized scale that can adequately measure DI as a concept. As argued in Paper 2, since DI is an ‘umbrella construct’ consensus on how to operationalize this type of constructs is rarely achieved. In this sense, should not future DI scales considers the attribute differences not only based on geographical scope, but also on the type of entity/object (destination, type of tourism, event or theme park)? This paper advocates that DI scales should progressively include attributes that really match the object under study.

In this sense, this study examines in more detail the nature of DI applied to LDAs as a new study object by identifying a set of image variables that formed the image of this type of tourism. Based on this aim and mainly because this is an exploratory study about DI structure (Bo and Busser, 2005) or nature (e.g. Martín and Rodríguez del Bosque, 2008), a combination of two DI theories and scales were used, more precisely

the Echtner and Ritchie (1991, 1993) and Beerli and Martin's (2004a). The former because it helped to understand that LDAs can also be assessed through more tangible or intangible attributes (a cognitive component which includes functional and psychological attributes), common *vs.* unique attributes that really can differentiate the destination and a more holistic or *gestalt* image *vs.* an image more focused on particular attributes; the latter because Beerli and Martin (2004a) propose a framework that includes every aspect of the destination of DI based on nine image categories or dimensions (natural resources; general infrastructure; tourist infrastructure; tourist leisure and recreation; culture, history and art; political and economic factors; natural environment; social environment; and atmosphere of places). According to the authors,

...the selection of the attributes used in designing a scale will depend largely on the attractions of each destination, on its positioning, and on the objectives of the assessment of perceived image, which will also determine whether specific or more general attributes are chosen. (Beerli and Martín, 2004a: 659).

This means that a DI study should attend to the characteristics and particularities of the destination under study. In other words, when conducting an image study the image attributes more related to the destination itself and also to the type of tourism under investigation should be considered. In sum, this thesis supports the idea that these two scales complement each other and together they provide a more comprehensive DI assessment (see Table 1.2).

A more detailed explanation about the implementation of this theoretical frame is further developed almost in every Paper, particularly in theoretical Papers 1 and 2 along with more practical Papers such as 4, 6 and 7.

Table 1.2 – Destination Image Scales Adopted in this Study

<i>Authors/Year</i>	<i>Theory/Scale</i>	<i>Observations</i>
Beerli and Martin (2004)	Framework based on nine DI dimensions (natural resources; general infrastructure; tourist infrastructure; tourist leisure and recreation; culture, history and art; political and economic factors; natural environment; social environment; and atmosphere of places)	<ul style="list-style-type: none"> . Classification based on dimensions or components; . Provide more detailed information about the destination; . Supported by the by destination development theory about destination components; . DI is constituted by different dimensions, which are perceived differently by tourists and deserve special attention for marketing positioning strategies; . DI scale more focused on a supply side/projected image.
↑ ↓		
Echtner and Ritchie (1991, 1993)	Destination image based on three continua: functional/psychological, common/unique, and holistic/attribute	<ul style="list-style-type: none"> . Shift from a unidimensional to a multidimensional concept of DI; . DI ratings include more measurable perceptions or more abstract impressions; . An item-by-items evaluation or a more holistic impression about the destination; . DI can include ordinary or more unique and special attributes; . DI scale more focused on a demand side/perceived image.

Source: Own Elaboration.

1.3.3 Lake Tourism and Lake-Destination Areas

It is important to note that lakes are open water bodies, dams or reservoirs which might represent a valuable resource for a variety of human activities. In addition, lakes might also become an important resource for tourism development, based on their landscape features, flora, fauna and cultural attractions. Lakes offer a naturally defined core resource for tourism development (Hall and Härkönen, 2006). This is in fact a term that tends to be categorized by the location of the lake. Therefore, some authors prefer the term ‘water-based tourism’ since it relates to any activity or experience undertaken in or in relation to water (Jennings, 2011). However, this thesis adopts lake tourism which circumscribes a composite of meanings (see Table 1.3) clearly demonstrating that this is a type of tourism that takes place not only on the lake itself, but also in the surrounding region.

Table 1.3 - Selected Definitions of Lake Tourism and Lake-Destination Areas

Definition/ Author/Date
. "From a viewpoint of the tourist, a lake as a destination is a place with a definite location situated away from home, and having a number of services for the tourist. Before making a travel decision, the tourist has formed an image of the lake destination when studying the promotional material of the destination, say, on an internet site" (Ryhänen, 2001:4).
. "A lake as a tourist destination is finally constituted only when tourists come to it from somewhere else. Before that, every LD is an unknown blue spot on the map, which is only significant as a piece of the physical environment and as a social and cultural dimension of the local community unconnected to tourism structures elsewhere" (Ryhänen, 2001:4).
. "A neutral lake environment becomes meaningful once the tourist links images and feelings born from experience of it" (Tuohino and Pitkänen, 2004:80).
. "(...) lake tourism is tourism that occurs not only on the lake itself, but also in the surrounding area. Lacustrine tourism systems therefore include the lake, the foreshore and those amenities, facilities and infrastructure in the surrounding region that support the role of the lake as a tourist attraction" (Hall and Härkönen, 2006:4).
. "(...) the idea of lake tourism reinforces the idea that there are certain geographical entities that, because of their particular environmental characteristics are often designated as a separate type of tourism in which the specific environment serves to attract particular activities and which serve to convey certain environmental images as part of destination promotion" (Hall and Härkönen, 2006:5).
. "As well as natural features, lakes are also critical in supporting human life and have a social significance dating back thousands of years; indeed, lakeshores are significant archaeological resources, having supported settlements for centuries" (Cooper, 2006:27).
. "Taking the lead of the WTO, we can think of lake destinations as being (1) cultural appraisals, comprised of images and perceptions; (2) perishable and vulnerable to change; (3) used by multiple users or stakeholders; (4) complex amalgams in need of management" (Cooper, 2006:28).
. "To be considered a true tourism destination, a lake attraction needs to be complemented by support services for tourism (such as accommodation, retailing, and food and beverage), access and, ideally, a strong organization at the destination level" (Cooper, 2006:34).
. "In the case of lake-destination tourism, other influential groups frequently come into play, suggesting that successful development and marketing of lake-destination areas may be more complicated, requiring careful attention to all stakeholders' needs and obtaining adequate information to make sound decisions (Erkkilä, 2006:207).
. "Introducing the concept of 'sense of place' into the mental landscapes connected with the lake allows the development of lakes as a tourism resource and the touristic development of a region. Raising the 'sense of the lake' to the ranks of traditional tourism images increases the value of lake tourism and lake landscapes" (Tuohino, 2006:102).
. "A lake as a tourist destination is generally a functionally compact regional whole with clear geographical limits. A single lake destination is sometimes surrounded by a compact cluster of tourism activities. A lake destination in some cases is a part of a larger region (lake district destination) inside which there are several small lakes, and the whole region is connected" (Ranade, 2008:543).

Source: Own Elaboration.

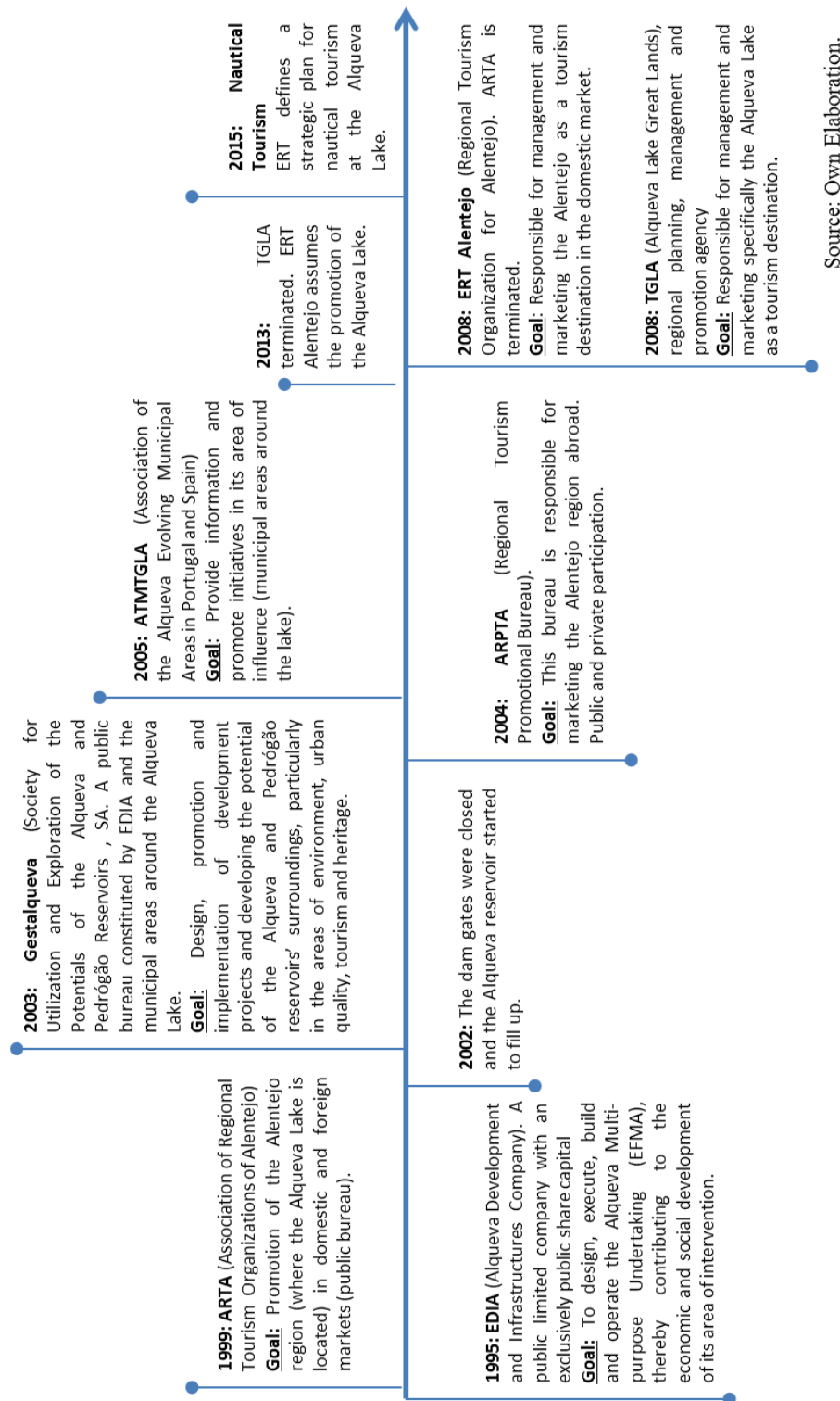
Actually, despite the natural and cultural resources around the lake, the general enchantment of lakes and water relates to human emotions and how lakes make tourists feel. For that reason forming an LDI is of utmost importance since a strong image and brand are integral to successful marketing plans for lakes (Erkkilä, 2006; Ryhänen, 2001; Tuohino and Pitkänen, 2004, Tuohino, 2006). Definitely, image is of topmost

importance in a lake tourism definition. However, there is an absence of literature related to this topic. As Tuohino (2006: 101) states “as for lake tourism, destination marketing has only barely started”.

Although insufficient, the literature reveals that the attributes related to LDAs are strongly tied to the water intertwined with outdoor activities, as expected (Sievänen *et al.*, 2006). Others (Erkkilä, 2006), highlight more psychological attributes (e.g. ‘relaxing’, ‘peaceful’, ‘closer to nature’). For that reason, Paper 4 introduces a combination of items specifically related to LDAs, depicted from textual and pictorial analysis of 40 lake descriptions and 124 photos. To meet this topic a qualitative phase was undertaken in order to investigate the nature of LDI and identify a set of image variables that formed the image of LDAs.

Then, in quantitative stage, a model of the formation of LDI in order to assess image dimensions and propose a set of image variables that create the image of LDAs was proposed and tested at the Alqueva Lake. Presently, the Alqueva Lake is the largest reservoir in Europe (surface area 250km²; maximum depth 99m; shoreline 1200 Km; length 82 km) since the gates were closed in 2002. Figure 1.2 shows a linear timeline with the important historical events related to the management of the lake which have occurred since 2002. The goal is to contribute more effectively to a better understanding of the Alqueva Lake present times. At this moment the Destination Management Organization (DMO) responsible for marketing of the Alqueva Lake is defining a strategy until 2020. The strengths and the weakness of the Lake as a travel destination in the future are being analysed. If the surface of the Lake is one of the main strengths, as is the potential for the development of nautical activities an opportunity, the fact is that there is a significant lack of infrastructures and total absence of coordination between the various stakeholders involved in the process (ERT, 2015). Given this, the last part of the thesis addresses some courses of action that might be implemented to improve the image, positioning, and competitive advantages of LDAs, particularly the Alqueva Lake.

Figure 1.2 - Some Facts Related to the Management and Promotion of the Alqueva Lake (Timeline)



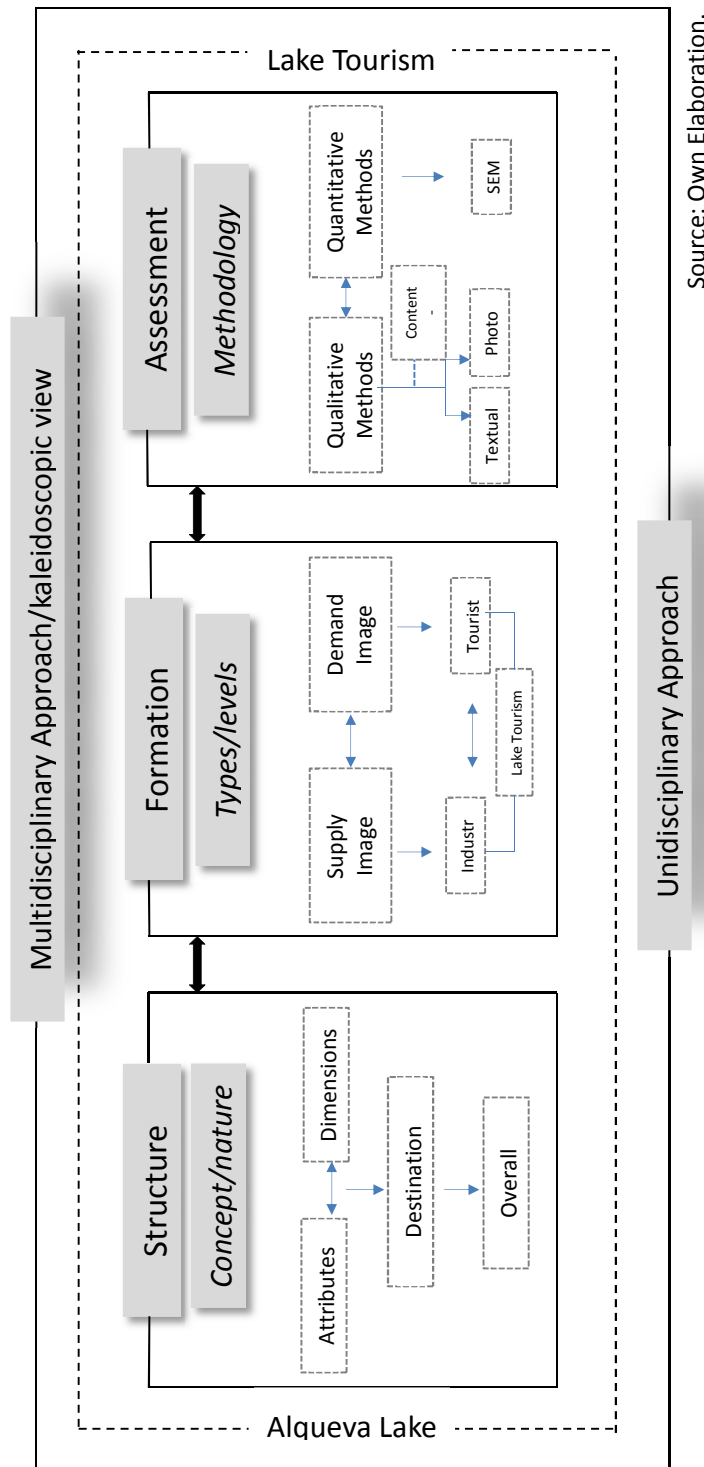
1.4 Conceptual Frame of Reference

This thesis titled “Lake-Destination Image Assessment: the Case of the Alqueva Lake, Portugal”, is underpinned by research that focuses on destination image applied to a new context and a new study object, lake tourism and LDAs in this case. With the advance and growth of the tourism and hospitality industry, more places have been emerging as travel destinations and, therefore, the scope of image studies has expanded (Stepchenkova and Mills, 2010). Thus, in this investigation the DI concept and nature is applied to lake tourism and LDAs as a non-traditional destination, which has been completely absent from DI studies since the starting point in the 1970s. More precisely and as explained previously, there has been a scarcity of literature investigating the variables involved in the formation of a lake-destination image. In this sense, apart from assessing LDI, this thesis also aims to identify characteristics and dimensions of lake tourism as a study field, attempting to enrich lake tourism theory.

The conceptual frame of reference of this study is presented in Figure 1.3. This study is grounded on a mindset with two angles that are related to one another as a part of a whole (for a more detailed explanation see Paper 1). The ‘multidisciplinary approach’ (MA) is considered here as a precondition, a prerequisite to undertake a DI assessment as a result of theoretical complexity and limitations of this construct continuously pointed out by several authors (Echtner and Ritchie, 1991, 2003; Fakeye and Crompton, 1991; Gallarza *et al.*, 2002; Gartner, 1996). This corresponds to what Gallarza *et al.* (2002: 73) named as a ‘kaleidoscopic view’ of the construct, a “continuously reduced and changing vision”. The idea is that DI is a multidimensional construct, an ‘umbrella construct’ (UC) (see Paper 2) that constantly requires an open way of thinking of the researcher, in exactly as the same way as tourism as an academic field. DI is a construct that intersects with perspectives, standpoints and theoretical predilections from several other disciplines. Alongside the ‘unidisciplinary approach’ (UA) with regard to the scope of this study, there is a marketing viewpoint of destination image. This study is embraced by marketing theory in general, destination marketing in particular and even more precisely, destination image as a research topic. Considering this approach, the frame of reference illustrates three lines of inquiry in DI research (Chon, 1991; Gallarza *et al.*, 2002) (structure, formation process and assessment) from which the main theoretical and empirical contributions for this study arise. From here, the study site is located at the Alqueva Lake as an emerging destination in the Alentejo region in the

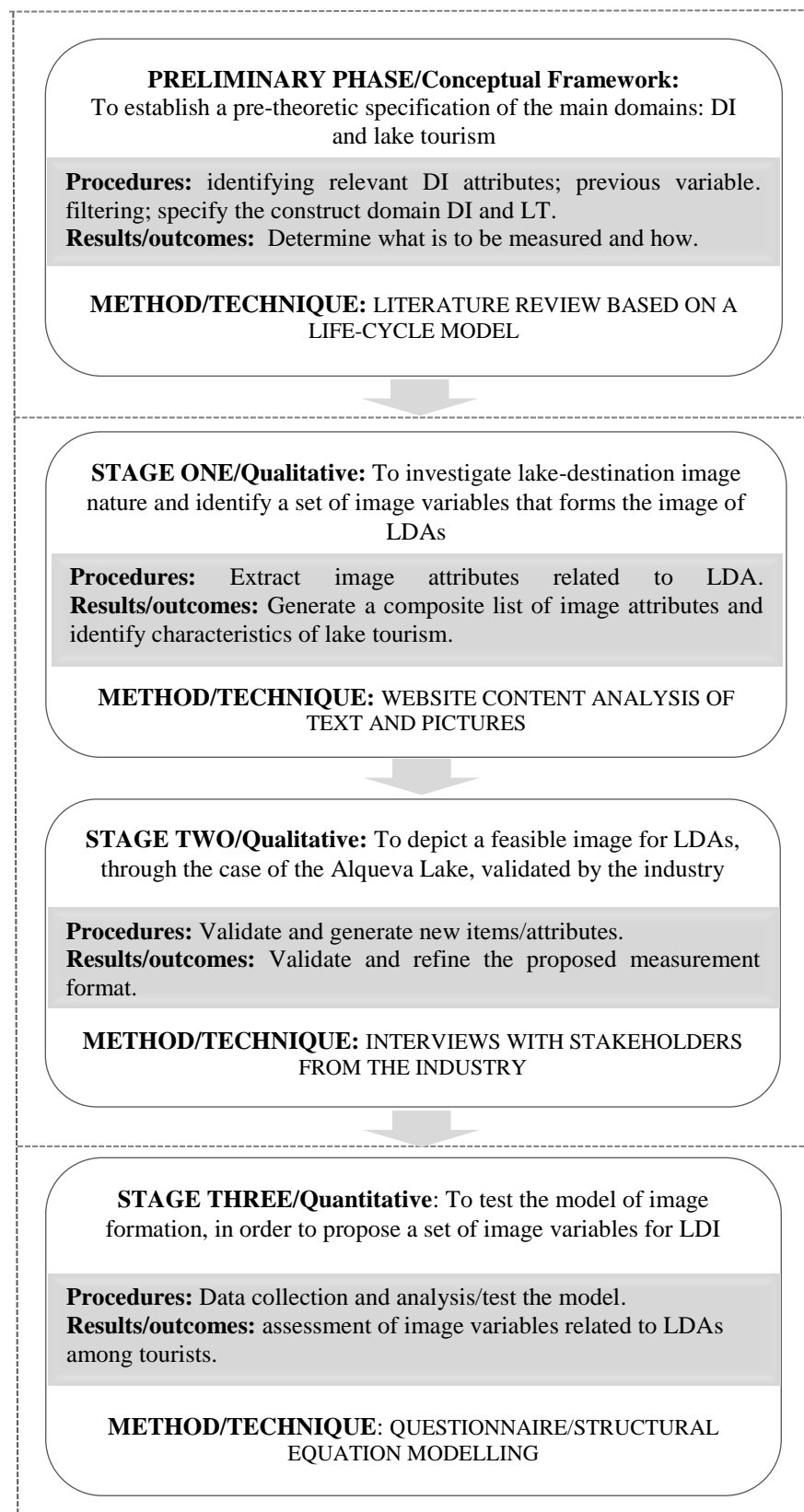
south of Portugal. This new resource has offered a naturally defined unit for tourism development since the reservoir started to fill up in 2002.

Figure 1.3 - Conceptual Framework of the Thesis



Based on the conceptual framework previously presented and in order to better illustrate the rationale of the research, Figure 1.4 provides a synopsis of the research design.

Figure 1.4 - Research Design of the Thesis



Source: Own Elaboration.

The research design is grounded on a three-stage development schema structured in two main methodological procedures, unstructured and structured. Each stage is framed by its own goals, methods and results. More details regarding this topic will be described in the following sections (see section 1.6). For a more detailed and structured description, Figure 1.5 shows the goals, research questions, research guidelines and research purposes corresponding to the different stages that comprised this thesis. The research guidelines (total 12) provide guidance to the purposes in each Paper as the study comes forth. Thus, the sequence of the research purposes (total 7) is in line with papers produced along this research. A comprehension of this line of thought is required in order to understand the organization of the thesis as the next section will explain.

Figure 1.5 - Research Stages: Goals, Research Guidelines, Questions and Purposes

COVERED IN PAPERS 1 TO 3	
<i>Preliminary stage: conceptual framework</i>	
1st GOAL	To undertake a preliminary approach into the multiple nature of the DI construct by establishing a pre-theoretic specification of the main domain of study: DI and LT
Research Question (RQ)	<p>RQ1: How to integrate a DI assessment study, the emergence of a new research field like LT and the biggest man-made lake in Europe (Alqueva Lake)?</p> <hr/> <p>RG1: A more holistic approach is required when investigating the DI construct due to the complex, multiple, relativist and dynamic nature of DI.</p> <p>RG2: To critically review the DI construct by proposing the life-cycle model as the appropriate framework for an evolutionary analysis and propose DI as an 'umbrella construct'.</p> <p>RG3: Based on a trend of DI research the scope of DI studies has become wider and non-traditional entities should also be included as new types of tourism (e.g. lake tourism).</p> <p>RG4: There is a lack of consensus about which attributes should be selected and included in DI scales; attributes more related to the object under study should be included.</p> <p>RG5: Lack of a standardized scale instrument for the DI construct, only three scales are considered to be reliable and valid (Baloglu and McCleary, 1999; Beerli and Martín, 2004 and Echtner and Ritchie, 1993).</p> <p>RG6: Due to the inconsistencies in measuring DI a combination of qualitative and quantitative methods should be applied.</p> <p>RG7: LT is a very recent sub-field of tourism studies and there is no LDI investigation yet; and the Alqueva Lake has the potential for LT development</p> <hr/> <p>RP1: To undertake a preliminary approach to the multiple nature of the DI construct by establishing a pre-theoretic specification of the main domain of study.</p> <p>RP2: To critically review the DI construct by proposing the life-cycle model as the appropriate framework for an evolutionary analysis and proposing DI as an 'umbrella construct', in order to identify and depict the main DI theories and how to measure the construct.</p> <p>RP3: To present and characterize the potential of the Alqueva Lake for lake tourism as the study site and examine lake tourism as a recent sub-field of tourism studies.</p>
Research Guidelines (RG)	
Research Purposes (RP)	

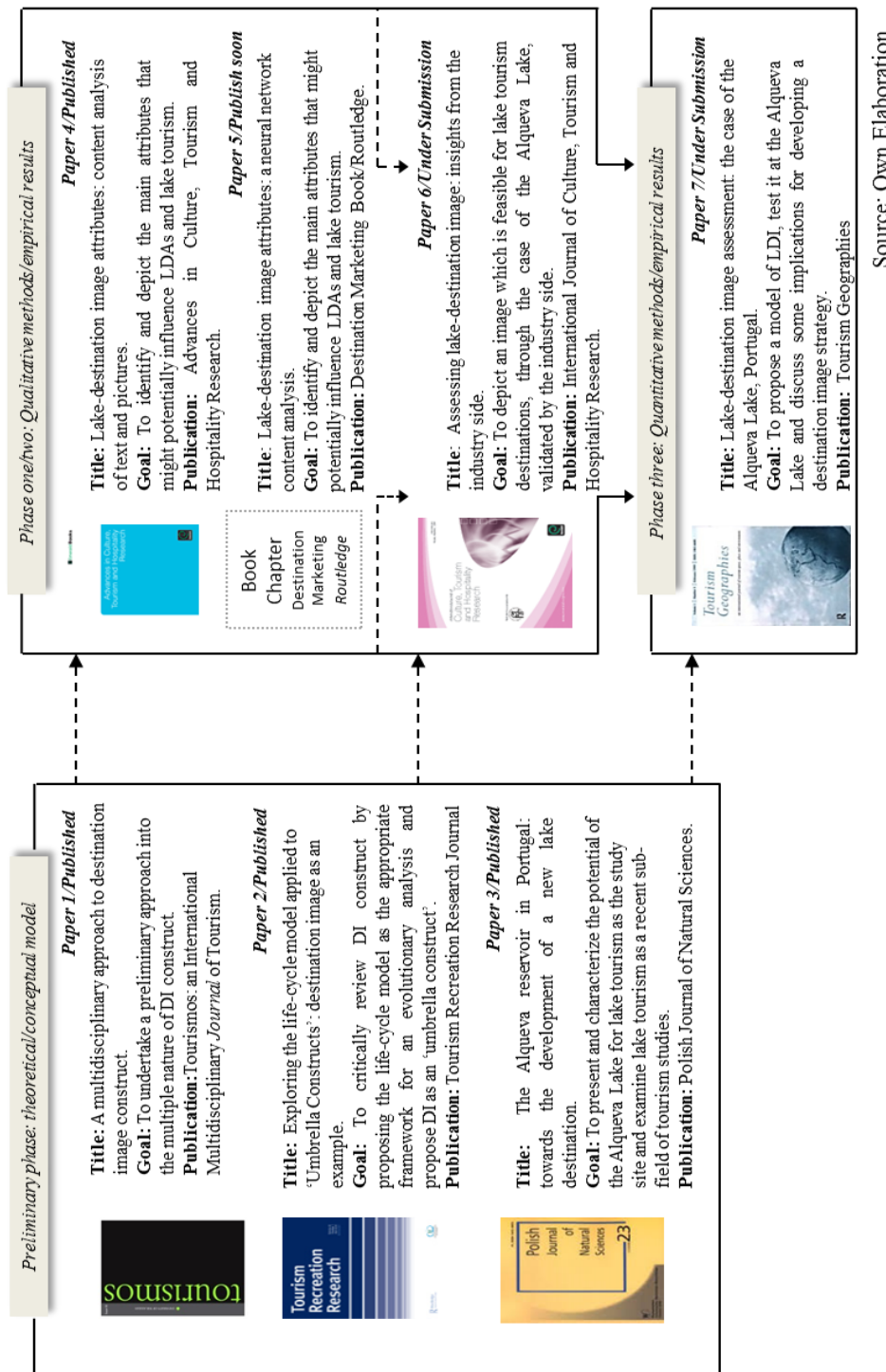
COVERED IN PAPERS 4 TO 6	
<i>Stage one and two: Qualitative methods/empirical results</i>	
2nd GOAL	To investigate the nature of lake-destination image and identify a set of image variables that forms the image of LDAs.
Research Question (RQ)	RQ2: What are the image attributes most specifically related to lake tourism and LDAs? And the image of the Alqueva Lake?
Research Guidelines (RG)	RG8: The selection of the attributes used in designing a scale will depend largely on the attractions of each destination (Beerli and Martin, 2004). RG9: New methods of measuring DI should be considered, such as photo content-analysis (based on imagery processing approach). RG10: Lake tourism is not only related to the lake itself, but to all the resources that are located in the surrounding region.
Research Purposes (RP)	RP4: To identify and depict image attributes most specifically related to lake tourism and LDAs, and simultaneously, contribute to conceptualizing and defining lake tourism as recent sub-field of tourism studies. RP5: To depict an image which is feasible for lake tourism destinations, through the case of the Alqueva Lake, validated by the industry side?
COVERED IN PAPER 7	
<i>Stage three: Quantitative methods/empirical results</i>	
3rd and 4th GOAL	To test the model of the formation of LDI in order to assess image dimensions and propose a set of image variables that create the image of LDAs. To discuss and propose courses of action that might be implemented to improve the image, positioning, and competitive advantages of LDAs, particularly the Alqueva Lake.
Research Question (RQ)	RQ3: Which image factors are important for LDI formation, in order to improve LDA competitiveness?
Research Guidelines (RG)	RG11: DI is constituted by different components or dimensions, which are perceived differently by tourists and deserve special attention for marketing positioning strategies. RG12: The process of storing information is based on an information-processing and imagery processing approach.
Research Purposes (RP)	RP6: To propose a model of LDI with a set of image variables, test it at the Alqueva Lake and discuss some implications for developing a destination image strategy. RP7: To assess tourists' perceptions about the Alqueva Lake as an LDA and define initial characteristics and behaviour of lake tourists.

Source: Own Elaboration.

1.3 Organization of the Thesis

This thesis consists of a synopsis and seven individual research Papers. The synopsis aims to bring together all the Papers, containing theoretical and methodological insights for a more clear understanding of this piece of work. An overview of the organization of the thesis is shown in Figure 1.6, followed by a summary of each Paper that structures this thesis. Each chapter corresponds to the seven Papers respectively, with specific objectives. However, the four main goals of the thesis are explained by all the Papers. Lastly, some managerial and research implications are highlighted as well as future research in the last section.

Figure 1.6 – Structure of the Thesis (Organization of the Papers)



The first goal was to establish a set of assumptions that provide a pre-theoretic specification of the main domains of this thesis: destination image and lake tourism. To meet the first part of this objective and based on a primary literature review, Paper 1

establishes the initial frame of thinking of the study. Through this stage the Paper addresses the specific nature of the tourism product and advocates that DI is of paramount importance in tourism mainly due to the characteristics (common and specific ones) of the tourism product (Middleton and Clarke, 2001). Additionally, this Paper also concludes that DI is a very ambiguous construct due to a complex, multiple, relativistic and dynamic nature (Gallarza *et al.*, 2002) and thereupon a conceptual framework based on a broaden approach should be considered.

Paper 2 also responds to the first goal, which deepens the understanding of DI as the main construct of the study. It initially provides a context, which evidences why DI is considered an 'umbrella construct' (UC). Next, an analysis of DI research specifying some conditions and important steps within an evolutionary perspective is considered. The purpose here is to explore the life-cycle model as a framework analysis, rather than to endeavour a classic in-depth literature review. In fact, the aim is to find some evolutionary elements taken from specific different approaches and applications that must be considered as DI research unfolds. Throughout this process, the Paper discusses some important avenues along which DI construct and research can scientifically progress. Lastly, Paper 3 focuses on lake tourism as a very recent sub-field of tourism studies and undertakes a close examination of the potential of the Alqueva Lake, the biggest man-made lake in Europe, for lake tourism.

The second objective attempts to investigate lake-destination image nature and identify a set of image variables that form the image of LDAs. Despite the growing number of studies related to DI, as the literature review demonstrated, very little is known about destination marketing and image applied to the lake tourism context (Tuohino, 2006). The Paper 4, 5 and 6 addresses to this. Firstly, by means of a content-analysis Paper 4 generates a set of image variables through the use of textual and photographic data. A total of 40 lake descriptions (units of analysis) and 124 lake photos were collected, grouped by country and content-analysed. A final list of composite LDI attributes, textual and pictorial, were obtained. In addition, characteristics and dimensions of LT concept were identified.

Conjointly, Paper 5 aims to validate the results previously obtained for a more accurate picture of lake tourism and LDI. Certain words or attributes which represent the image projected by LDA, following specific patterns of associations, were obtained in this

Paper. Secondly, with the aim of assessing the applicability of the 44 items generated in the aforementioned phase of the research, semi-structured interviews were carried out with various stakeholders from the tourism industry (see Paper 6). Thus, the main attributes that describes the Alqueva Lake as an LDA were also examined. This study incorporates two approaches: an attribute-based approach (textual data), but also a photo-based approach (visual data), specifically with photographs of the Alqueva Lake. Furthermore, this Paper also reinforces the existence of lake tourism as a particular type of tourism based on natural or artificial lakes that takes place not only on the lake itself, but also in the surrounding region.

The third and four objective aims to enhance the understanding the nature of LDI, by testing the model of image formation (see Paper 7). The destination image of the Alqueva Lake as an LDA was then assessed through an attribute-based image (ABI) and photo-based image (PBI) approach. Therefore, a set of image variables that create the image of this type of destinations was proposed. The measurement model is based on five image dimensions: “natural resources”, “infrastructures”, “tourist leisure and recreation”, “culture and heritage” and “atmosphere”. It was tested at the Alqueva Lake. This Paper posits that the “atmosphere” image dimension is the most manifested in both approaches. The influence on the overall image was also assessed.

In general, all these papers/chapters complete each other, since the theoretical part of the thesis and the definition of the conceptual model is deeply explored in Papers 1, 2 and 3. Then, the qualitative methodology is analysed in Papers 4, 5 and 6 to explore the attributes of LDAs and validate them. Finally, a model measures the proposed image attributes in Paper 7 through a quantitative stage.

1.6 Overview of the Papers

This section displays a brief summary of the seven Papers that structure this thesis in order to fulfil the pre-defined goals. Therefore, the seven Papers present and discuss the findings of each part of this research. The first three Papers structure the conceptual schema of this thesis which has risen from the initial research question: *Since the Alqueva Lake is at the very beginning as an LDA, how can image as a marketing tool contribute to this process?* From here three keywords guided Papers 1, 2 and 3 of the thesis: destination image, lake tourism and Alqueva Lake. The goal was to explore how

to integrate a DI assessment study, the emergence of a new research field such as Lake Tourism and the biggest man-made lake in Europe (Alqueva Lake). This stage of the research allows us to determine the ‘worldview’ of this thesis as a set of beliefs that guide action (Creswell, 2013) and also to acquire and consolidate basic conceptual knowledge. These three Papers were essential for selecting the suitable research approach, design and methods.

The following three papers evolved around the qualitative methods as the first stage of this study (Papers 4, 5 and 6). The goal here was to first collect qualitative data, analyse it and then use the information in the quantitative stage. In other words, the aim was to investigate lake-destination image nature and identify a set of image variables that formed the image of LDAs. Papers 4 and 5 identified salient image attributes related to LDAs to be examined and validated by interviews with the stakeholders (Paper 6). In sum, Papers 4, 5 and 6 contribute to developing the measurement scale which was assessed in the quantitative stage. The last Paper (Paper 7), based on a quantitative approach, determines which image factors are important for LDI formation, in order to improve the LDA competitiveness (see again section 1.2).

1.6.1 Summary of Paper 1 - “A Multidisciplinary Approach on Destination Image Construct”

Research Purpose (RP1): *To undertake a preliminary approach to the multiple nature of DI construct by establishing a pre-theoretic specification of the main domain of study.*

The first Paper discusses the concept of image and destination image towards the development of the conceptual frame of reference of this thesis. The Paper develops an exploratory approach of image as an idea and a concept as a result of multiple contributions from several disciplines with different insights. One of the main issues of this Paper deals with understanding that ‘image’ is a multifaceted construct whose nature is inextricably linked to other fields of knowledge. Some authors refer to ‘image’ as an ‘elastic referentiality’ accumulated over multiple centuries with multiple and conflicting meanings (Stern *et al.*, 2001). Others (Boulding, 1956: 160) even proposed ‘eiconics’ as a new discipline explaining that the “theory of image does provide a basis

for the integration of a great deal of intellectual work which previously has seemed rather unrelated”. Similarly, Costa (1992) goes even further, arguing that image, as a form of communication, is considered as a ‘global science’. In conclusion, Boulding (1956) argued that the image concept totally influences human behaviour. After this assertion, marketers started to be concerned with consumers’ images of products, services and companies themselves.

This first part of the Paper provided the basis for understanding how multidisciplinary seems to be rooted in destination image construct (Bramwell and Rawding, 1996: 203; Gallarza *et al.*, 2002). An exploratory literature review of destination image reveals in this Paper that although a substantial number of studies have been conducted for almost four decades, several authors still recognize a lack of conceptual framework around destination image (Echtner and Ritchie, 1991, 2003; Fakeye and Crompton, 1991; Gartner, 1993). In fact, there is still no consensus on how to define it as a result of its ambiguity. As Pearce (1988: 162) points out, “image is one of those terms that will not go away, a term with vague and shifting meanings”. The findings of this Paper, essentially theoretical, established the groundwork for the conceptual frame of reference of this thesis.

Based on this, the basis for a ‘worldview’ of this study was settled. A more pragmatic perspective of investigation seems to emerge from this discussion. A step by step path characterizes this first Paper, which was the beginning of a more practical approach to this investigation, more focused on the consequences of the study, on multiple perspectives of the study object, on ‘what works’ to address the initial question, rather than the methods, and more on the use of a combination of methods of data collection (Creswell and Plano Clark, 2011; Creswell, 2013). This Paper at that time did not clearly assume ‘pragmatism’ as the ‘worldview’ or ‘paradigm’ of Tomas Kuhn (2012) of this research. However, as the investigation becomes more mature all the signs indicate that this study was definitely based on a pragmatic approach as a theoretical foundation. The ‘multidisciplinary approach on DI construct’ as the title of the first Paper is embraced by this underlying frame of reference, mainly due the ambiguity of the construct as the second Paper demonstrates.

1.6.2 Summary of Paper 2 - “Exploring The Life-Cycle Model Applied to ‘Umbrella Constructs’: Destination Image as an Example”

Research Purpose (RP2): *To critically review the DI construct by proposing the life-cycle model as the appropriate framework for an evolutionary analysis and propose DI as an ‘umbrella construct’, in order to identify and depict the main DI theories and how to measure the construct.*

The second Paper examines more thoroughly the construct of DI, describing it as an UC. According to Hirsch and Levin (1999: 200) a UC is “broad concept or idea used loosely to encompass and account for a set of diverse phenomena”. The Paper assumes a life cycle model applied to ‘umbrella constructs’ as an appropriate framework for an evolutionary analysis. With this Paper, rather than endeavouring to undertake a classic in-depth literature review, a different framework is proposed. This methodology of reviewing literature has never been applied in destination image research. The outcomes of this analysis show that the scientific progression of DI takes place within a cyclical process where different approaches, theories and methods are emphasized at different times in different periods. The construct was examined through three different life-cycle stages: (1) emerging excitement, (2) validity challenge, (3) “tidying up with typologies”, based on Hirsch and Levin’s classification (1999).

The findings strongly suggest that DI soon emerged as an exciting new opportunity for further study among researchers since it “exerts a crucial effect on consumer choices.” (Correia and Kozak, 2010: 200). Moreover, objective outcomes also reveal the following: (1) based on a trend of DI research (Stepchenkova and Mills, 2010) the scope of DI studies has become wider and non-traditional entities should also be included as new types of tourism (e.g. lake tourism); (2) inconsistency between DI conceptualization and operationalization has become among the most cited problems in DI research (Baloglu and McCleary, 1999a; Echtner and Ritchie, 1993; Fakeye and Crompton, 1991; Tasci *et al.*, 2007); (3) due to the inconsistencies in measuring DI, a combination of qualitative and quantitative methods should be applied (Jenkins, 1999; Echtner and Ritchie, 1993; Martin and Rodríguez del Bosque, 2008); (4) “there is not yet an accepted theory to replace the multi-attribute models” (Pike, 2002: 542); (5) due to the lack of a standardized scale instrument for the DI construct, only three scales are considered to be reliable and valid (Baloglu and McCleary, 1999a; Beerli and Martín,

2004 and Echtner and Ritchie, 1993); (6) researchers started to be sceptical about the validity of attribute lists and by the mid-1990s alternative methods of DI assessment based on qualitative techniques started to be proposed (Dann, 1996; Ryan and Cave, 2005; Reilly, 1990); (7) information processing theory gave rise to imagery processing theory (MacInnis and Price, 1987), where visual methods to assess DI started to be applied (Mackay and Fesenmaier, 1997). In conclusion, theoretical contributions were then gathered in this Paper in order to define the research design and start to collect data.

1.6.3 Summary of Paper 3 - “The Alqueva Reservoir in Portugal: Towards the Development of a New Lake Destination”

Research Purpose (RP3): To present and characterize the potential of the Alqueva Lake for lake tourism as the study site, which is at the very beginning of the life-cycle as an LDA and, simultaneously, examine lake tourism as a recent sub-field of tourism studies.

The third Paper, which completes the initial theoretical block reveals and discusses the potential of the Alqueva Lake as an emerging destination in the Alentejo region in the south of Portugal. The assumption of this Paper lies in the fact that it is necessary at this stage of the research to know the study site better since it provides a richer understanding of the potential of the lake and how tourists might perceived it. In addition, it makes sure that the value of examining these elements provides important insights to engage in a discussion of the challenges, contradictions, and directions towards tourism development as an LDA.

The Alqueva Lake as a new resource offers a naturally defined unit for tourism development since the reservoir started to fill up in 2002. The Alqueva dam is located in the Alentejo, a south-central region of Portugal and has a long and well-established history: the Portuguese government decided to invest in water storage facilities to expand irrigation and supply water to the Alentejo region as a result of severe problems of physical and human desertification. Nowadays the Alqueva Lake is surrounded by natural and cultural resources which have great potential for tourism development. Alqueva was the first site in the world to receive ‘Starlight Tourism Destination’ certification, awarded to visitable places characterized by excellent quality for the

contemplation of starry skies and the practice of tourist activities based on this resource. The Alqueva Dark Sky Reserve is an area of 3000 km² and is spread over the lakeside villages. It is also important to highlight the sixteen villages now located on the lakeshore, and which have undergone a profound transformation. It follows that the cultural and historic attraction of the lake is interweaved with this new territory that defines the Alqueva Lake as an LDA. Despite the fact that these villages are not well prepared for tourism, they preserve and value the history and living experiences of the local people over the centuries. In general they attract the visitor's attention with similarly-shaped white houses, framed in a deep blue, grey or yellow colour. As Cooper (2006: 29) states "*local community is a key consideration of the cultural appraisal of lakes as recreation and tourism resources*". Thereupon, the peaceful atmosphere surrounded by a rural landscape is worthy of interest. Further, this Paper also addresses the scarcity of tourism infrastructures around the lake, particularly nautical infrastructures.

In conclusion and based on a literature review about lake tourism, this Paper draws attention to important issues concerning the Alqueva Lake as a future LDA, which will influence a successful marketing approach and action, *i.e.* (1) a strong coordination among the several stakeholders involved in the management of the Alqueva Lake, since lakes are a complex destination amalgam (Cooper, 2006); (2) the need for a clear delimitation of the territorial boundaries of Alqueva as an LDA assumed by the whole regional tourism industry, since lakes represent a geographical entity with particular environment characteristics (Hall and Härkönen, 2006); (3) development of successful tourism products based on the idea of 'waterscapes' since they are considered to have a significant potential for tourism marketing, because of their pleasantness as an environment and attractiveness as a landscape (Tuohino and Pitkänen, 2004). The Paper presents a kind of agenda on important topics in lake management which will influence destination marketing, particularly the process of creating an image of the Alqueva Lake.

1.6.4 Summary of Paper 4 - "Lake-Destination Image Attributes: Content Analysis of Text and Pictures"

Research Purpose (RP4): *To identify and depict image attributes most specifically related to lake tourism and LDAs, and simultaneously, contribute to conceptualizing and defining lake tourism as a recent sub-field of tourism studies*

The fourth Paper, which belongs to the qualitative stage and to the block of empirical results, undertakes an explorative study in order to generate a set of image variables through the use of textual and pictorial data.

An exploratory study was conducted in an online environment by analysing contents of a lake-related website as a source of information (cf. www.lakelubbers.com), an online directory for lake enthusiasts containing a worldwide database of about 1695 lakes and reservoirs spread throughout the world. Each lake contains a description by people who love lakes, true connoisseurs of inland bodies of water, named 'lakelubbers', according to the website. It seems appropriate to deem that this is a suitable data base since the aim is to generate a sample of image attributes specifically related to the lake tourism context.

The final sample had to be limited to European countries (n=22), due to the wide variety of lake locations; second, the two largest lakes (by surface area) in each country were considered. A total of 40 lake descriptions (units of analysis) constitute the sample of this study, which were manually browsed and scanned for their textual content. Also in line with the so called 'pictorial turn' (Feighey, 2003; MacKay and Fesenmaier, 1997) and based on photos as a valuable analysis method, particularly in DI studies (Jacobsen, 2007), this study simultaneously adopted visual information, particularly lake-related photos. A total of 124 photos from the sampled website were collected and grouped by country. In addition, the pictorial images were content-analysed in order to validate the results obtained in the textual data stage following previous visual studies (Albers and James, 1988; Govers and Go, 2005). Grounded on a deductive and inductive content-analysis the categories, sub-categories and correspondent survey items were developed.

Regarding the results from textual information, a set of nine categories/dimensions of LDI were explored and 21 sub-categories emerged answering research question 1 (RQ1) (e.g. for the category "natural resources" three sub-categories emerged: "natural features of the lake", "richness of nature", and "weather"; for the category "touristic infrastructures" four subcategories were defined: "accommodation and catering

facilities”, “available packages”, “signed trails and paths” and “tourist services and information”). Further, each subcategory includes several image attributes most related to LDAs, generating a set of over 100 potential image items. Some of these attributes are illustrated based on the functional-psychological continuum in Echtner and Ritchie’s model (1991, 1993). In respect to the findings from pictorial data, the visual method obtained a set of 42 motifs comprising five main categories or dimensions of LDI, where the most frequently appearing are related to natural elements such as sky, water and landscape.

The content analysis revealed that first theme includes all the elements that take place on the lake and lakeshore which are directly related to the lake itself; the second theme refers to the same element (natural, cultural, tourist resources), but now located in the surrounding region. Further, framed by this exploratory coding method, three spatial levels of lake tourism development emerged: (i) development on the lake itself as the main resource of this type of tourism; (ii) development on the lakeshore, intertwined with the (iii) development of the surrounding region. Lastly, five main dimensions of lake tourism as a subfield of tourism studies were extracted, i.e. *Resource Dimension* (including all the natural, cultural and social resources); *Supply Dimension* (referring to all the services, facilities and infrastructures which not only allow access but also add value to resource dimension); *Logistical Dimension* (referring to the existence of means of connections between lakes and lakeside villages, and lakes and main cities); *Organizational Dimension* (referring to lakes as a geographic and administrative entity that crosses different territories); and *Representational/Meaning Dimension* (conceiving lakes as a meaningful place to which the tourist links mental images and feelings formed through experience). A final note to add is that content-analysis was done using WebQDA (Web Qualitative Data Analysis).

1.6.5 Summary of Paper 5 - “Lake-Destination Image Attributes: a Neural Network Content Analysis”

Research Purpose (RP4): *To identify and depict image attributes most specifically related to lake tourism and LDAs, and simultaneously, contribute to conceptualizing and defining lake tourism as a recent sub-field of tourism studies.*

The fifth Paper focuses on validating the results obtained through the content-analysis of the previous Paper. Ryan (1998) posits that other steps of analysis might be implemented for the refinement of the final qualitative results, and by matching the results from content-analysis with the establishment of associations between words (attributes) through perceptual maps, it becomes possible to assess whether the data are mutually supportive. Given this, this Paper focused on the use of a neural content-analysis with CATPAC software as in other studies. Researchers have supported its use as a helpful tool for content analysis in tourism studies (Cave and Ryan, 2005; Choi *et al.*, 2007; Govers and Go, 2005; Govers *et al.*, 2007; Ryan, 1998). A further contribution of this Paper lies in the adoption of CATPAC in order to enrich the interpretation of the results from the previous Paper (Paper 4). Summarizing, the resulting neural network output was used to identify the words that were most frequently mentioned to portray image attributes related to LDA.

CATPAC is based on a neural modelling technique that generates a frequency table and proximity for the most common words. Proximities between words consists of artificial neurons or nodes which are connected by communication channels of varying strength within a sliding text window chosen by the researcher (Govers and Go, 2005) (standard size is 7 words, i.e., CATPAC moves a window of 7 words over the text and calculates proximities based on the number of times words are found together within these frames). For a good overview refer to Woelfel (1998), Doerfel and Barnett (1999) and for more a detailed explanation see Paper 5.

The groundwork was set in the previous Paper and based on those results (Paper 4) the text data analysed by CATPAC was classified under themes or domains. These themes were derived from the intersections between DI theory (particularly Beerli and Martín's, scale) and lake tourism theory (the five main dimensions of Lake Tourism mentioned in Paper 4). In sum, five themes were extracted and the text reorganized considering those themes, namely: *theme 0* based on a total combined lake description (40 texts of all units of analysis); *theme 1* corresponding to lake natural resources (about the lake itself); *theme 2* with a destination description (natural and social environment, atmosphere); *theme 3* comprising text data about destination heritage; (e) *theme 4* with the activities and facilities (general and tourist infrastructures and activities on and around the lake).

The findings regarding the image attributes extracted from the frequency table generated by CATPAC reveal the following: (1) *theme 1* – indicates that natural features (e.g. “depth”, “surface”, “topography”), ichthyofauna (“fish”, “trout”) and “shoreline” seem to be important attributes when promoting lakes; (2) *theme 2* – shows that localities around the lake (e.g. “city”, “town”, “village”), natural and cultural resources (e.g. “forest”, “nature”, “National Park”, “castle”, “museum”) are relevant image attributes; (3) *theme 3* – reveals that heritage (e.g. “century”, “ruins”, “ancient”, “UNESCO”) is also meaningful; and (4) *theme 4* indicates that water activities (e.g. “boating”, fishing”, “cruise”) and land-based activities (e.g. “hiking”, “mountain”) are key attributes for lake tourism and, consequently LDAs. In addition, through word association and clustering of words, a two-dimensional perceptual map of *theme 2* as an example highlights the value that the communities located around the lakes have for lake tourism development.

In conclusion, the ranking of words by themes extracted by CATPAC related to LDAs corroborates the set of variables obtained by content-analysis in Paper 4. These outcomes may provide guidelines for marketers when defining marketing strategies for LDAs.

1.6.6 Summary of Paper 6 - “Assessing Lake-Destination Image: Insights from the Industry Side”

Research Purpose (RP5): *To depict an image which is feasible for lake tourism destinations, through the case of the Alqueva Lake, validated by the industry side?*

The sixth Paper also belongs to the qualitative stage and empirical block. The purpose contributed to the quantitative stage by identifying the final salient variables to be examined. The variables were tested by means of different qualitative analysis among stakeholders from tourism industry in the Alqueva Lake. The generation of these image variables in an emerging destination will contribute to strengthen the concept, characteristics, and dimensions of a LDI and enrich a theory-building process in regard to this recent field of research. This Paper also attempts to demonstrate the importance of employing various techniques, framed by a qualitative approach, in analysing images, particularly in the case of unexplored destinations, such as the case of the

Alqueva Lake. Moreover, the literature review consistently demonstrated that there are advantages in employing qualitative techniques, particularly in the early stages of a DI research, since it apprehends more aspects of image (Cave *et al.*, 2003).

Thereupon, the purpose of the current research is to explore more thoroughly lake tourism based at this stage on the Alqueva Lake and, simultaneously, to assess the applicability of image attributes in this study site. As mentioned before, this work also evaluates diverse explorative qualitative techniques as tools to identify image perceptions.

The perceptions of stakeholders were examined in order to assess the applicability of image attributes related to LDA extracted from a prior list generated in Papers 4 and 5. The sample included seventeen semi-structured interviews based on two approaches: an attribute-based approach (textual data), but also a photo-based approach (visual data), specifically with photographs of the Alqueva Lake. Visual stimuli such as travel photography have been used as a methodological approach (e.g. Fairweather and Swaffield, 2002; Greaves and Skinner, 2010; Mackay and Fesenmaier, 1997). The structure of the interview consisted mainly of two sections. The first was a more structured part with the aim of covering the first and the second research questions. In this case, three techniques of extracting data were used (checklist, free-elicitation and photo-elicitation). The intention was to mix the techniques to assess the applicability of the items captured from the previous stage. The second section consisted of seven open-ended questions which aimed to answer to the third research question. Detailed explanation concerning each technique is in the corresponding Paper (Paper 6).

The checklist is a comprehensive set of image attributes related to LDA, which were listed across a table as a common method for data collection in DI studies. The respondents were asked to rate their importance for lake tourism (1=not important; 5=very important) and also if they describe the Alqueva reservoir as an LDA (1=does not describe; 5=describes accurately). The items included in the table were determined from the results of Papers 4 and 5, which identified a list of image attributes specifically related to LDAs. Regarding free-elicitation, this technique was also used to enrich the results (Olson and Muderrisoglu, 1979), in which respondents are free to say anything and everything that comes to mind when presented with a stimulus (O'Leary and Deegan, 2003; Reilly, 1990). With reference to the photo-elicitation technique, it

consists of the simple idea of inserting a photograph into a research interview (Harper, 2002; Schwartz, 1989). Stakeholders professionally involved in tourism were asked to elicit attributes from DMO official photos of the Alqueva reservoir. In regard to the semi-structured approach seven open-ended questions were put to all respondents.

The checklist shows the items most related to LDAs that might influence image formation of this type of destinations, suggesting that LDI is deeply rooted in the idea that the tourism development of a lake comprises not only the lake itself as a natural resource, but also the surrounding region. The results also show a set of 37 items of LDI that most describe the Alqueva Lake as the illustrative case of this study. These items will be tested at the quantitative stage. The results from the free-elicitation and photo-elicitation allowed an enrichment of the answers by extracting more image attributes of the Alqueva Lake. In fact, these techniques gave more holistic and psychological characteristics of destination image than attribute-based amongst the respondents, emphasizing the “atmosphere” of the places as a relevant image dimension in LDAs. This is related to the idea that “waterscapes” due to their pleasantness as an environment and attractiveness as a landscape have a great potential for marketing purposes (Tuohino and Pitkänen, 2004).

The results corroborate with the outputs already covered by Paper 4 and bring out more characteristics about lake tourism that can influence the image creation process.

1.6.7 Summary of Paper 7 - “Lake-Destination Image Assessment: the Case of the Alqueva Lake, Portugal”

Research Purpose (RP6): *To propose a model of LDI with a set of image variables, test it at the Alqueva Lake and discuss some implications for developing a destination image strategy.*

Research Purpose (RP7): *To assess tourists’ perceptions about the Alqueva Lake as an LDA and define initial characteristics and behaviour of lake tourists.*

The final Paper starts with a literature review that frame the main constructs involved in the conceptual model, alongside the results of testing the model using Structural Equation Modelling (SEM) analysis. A discussion of the findings and an outline of some theoretical and managerial implications are presented. Factors or image

dimensions such as: “natural resources”, “infrastructures”, “tourist leisure and recreation”, “culture and heritage” and “atmosphere” determine the structure of LDI. These dimensions were defined grounded on Beerli and Martín’s scale (2004a) mixed with lake destination theory (Ryhänen, 2001).

The purpose of the study is to test two models of the formation of LDI in order to assess image dimensions and propose a set of image variables that create the image of this type of destinations (LDAs). The models are based on two approaches, one grounded on a more common approach, namely *the attribute-based image* (ABI) approach and the other more grounded on new theories and methods of assessing DI, namely the *photo-based image* (PBI) approach. Their influence on overall visitor perceptions of the destination is also examined.

A convenience sample of 600 Portuguese tourists was considered as a result of combining the convenience method and the interviewer’s judgement. The questionnaire was personally administered to each individual and 500 valid responses were obtained. The questionnaire comprised six sections with 23 questions (structured and unstructured), broken down into 97 variables. In terms of analysis, the socio-demographics and visit characteristics of the Alqueva lake tourists were captured and also the main motivations and pull factors.

To assess the tourists’ perceptions about the Alqueva Lake as an LDA, a structural equation model based on a set of image dimensions and items that create the image of this type of destinations (LDAs) is proposed. LDI dimensions (“natural resources”, “infrastructures”, “tourism, leisure and recreation”, “culture and heritage”, and “atmosphere”) derived from Papers 4 and 6, with specific attributes were defined by SEM. This stage allowed a determination of the constructs under study.

The proposed model hypothesized that there were significant causal relationships among latent constructs. These casual relationships are represented in the path models explained in Paper 7. Evaluation is based on a set of observable variables that serve as indicators of latent variables, with the relationships between them being measured by Confirmatory Factor Analysis (CFA). Then a second-order factor analysis was performed to assess the structure of destination image where it was measured through declarations of photos. Once the structure of the factor destination image was reached, a SEM with only one path was drawn up to estimate the influence of the second-order

factor analysis (ABI, PBI) on overall destination image. In conclusion, all relationships hypothesised by the conceptual model are supported. The ABI set up the image dimensions or components that are relevant in LDI structure. Thus, the corresponding attributes specifically related to lake-destination areas were also determined. This Paper has attempted to contribute to the body of knowledge in two ways: (1) by investigating the nature of LDI; and (2) by exploring the concept of lake tourism as a recent field of study. The results indicate that a set of image dimensions formed the image of LDAs such as the ones studied: “natural resources”, “tourist, leisure and recreation”, “infrastructures”, “culture and heritage” and “atmosphere”. The dimension “atmosphere” was the most important factor in explaining LDI, which is in line with a tendency in DI literature of strengthening the psychological attributes (more intangible). In the case of LDI, attributes related not only to the lake itself, but mainly to the surrounding region were most highlighted. This supports the idea that lake tourism is not only related to the lake itself, but to all the resources that are located in the surrounding region as discussed in the literature review phase. For that reason and in conclusion, this study defines lake tourism as a multidimensional concept. Further, the improvement of water-based activities at the lake will contribute to positioning and definition of the competitive strength in perceived differential attributes of the lake. Interestingly, the results also show that the visual image of the Alqueva Lake is mainly influenced by mental images, associations and feelings related to the atmosphere of the lake.

Finally, this study was motivated by the need for research in lake tourism and LDAs as a new sub-field of tourism studies. Additionally, the fact that the Alqueva Lake as an LDA is at the very beginning of the life cycle, this study advocates that an image assessment at this stage of a destination’s development will strongly contribute to its progress.

1.7 Methodological Routes

1.7.1 Preliminary Considerations

As it was not possible to detail the methods used in the Papers as a result of word limitation, this section attempts to guide the comprehension of this part of the process.

However, it does not intent to replace the aforementioned Papers, but add more information and thus enrich the interpretation of the empirical part of the thesis.

The underlying foundation of this thesis is that, given the evolution of DI conceptualization into a more hedonic and emotional perspective of consumption acts in tourism, new challenges emerge for marketers in order to develop the most suitable positioning strategy for their destinations. Consequently, new theories, approaches and research methods will be necessary for the development of DI as an important academic field of tourism studies, such as Mixed-Methods Research (MMR). Moreover, as stated by Walle (1997:535) “the field of tourism needs to embrace a general recognition of the legitimacy of a variety of research tools”.

Tourism researchers soon started to be aware of validity problems of DI due to the complex nature of the construct (explain in Paper 2). There was a constant lack of consensus about which items or attributes should be considered to assess this concept (Tasci *et al.*, 2007). Despite the fact that several DI scales have been proposed since the emergence of a theory within this field, only three can be considered reliable and valid: Echtner and Ritchie (1993), Baloglu and McCleary (1999a,b), and Beerli and Martin (2004a) as this thesis concludes. The question was that the attribute-intensive directive approach grounded on information processing theory which was predominant in the 1980s and 1990s was no longer suitable. Soon, the shift from a unidimensional to a multidimensional conceptualization of DI (Echtner and Ritchie, 1991, 1993) clearly demonstrated the importance of using alternative methods based on a more interpretivist approach. Reilly’s work (1990) was one of the first DI studies to introduce qualitative techniques, in this case word association as free-elicitation technique. The goal here was to freely extract image dimensions which are more relevant to the respondent idea rather than imposed by the researcher. Years later, Jenkins’ (1999) work was decisive since it openly discussed the advantages and disadvantages for using structured and unstructured methods in DI research. According to the author, image studies should incorporate a two-phase approach, first qualitative and then quantitative in order to more successfully extract a complete image of a place. Following this line of thought Tasci *et al.*’s (2007) meta-analysis Paper highlights DI studies using a combination of quantitative and qualitative methods. Additionally, Stepchenkova and Mills (2010), through an extensive examination of the methods used in empirical and

conceptual/empirical DI studies conclude that new methodologies are being introduced when assessing DI, also in line with an increase in qualitative approaches.

Given the above, this study considers that when pursuing a more evolutionary perspective of DI construct based on a life-cycle as a framework (see Paper 2), combining quantitative with qualitative methods within different stages of the research seems to be the most suitable methodology. In the last decade multimethod studies have been increasing in this field of research (e.g. Martín and Rodríguez del Bosque, 2008; O’Leary and Deegan, 2003; Rolo-Vela, 2009), even more so when the object under study is a very recent field of research, such as lake tourism. In fact, a large number of studies have assessed DI in general, but few have attempted to measure it for any specific context. The travel context has not been very explicit in most studies (Pike, 2002), which might suggest that the characteristics of a specific destination have not been taken into consideration when an image assessment occurs. In this case, LDAs have been completely absent from DI studies (see Papers 3, 4, 5, 6 and 7). In fact, it becomes imperative not only to assess the image of this particular type of destinations, but additionally to identify and examine the main characteristics and dimensions of LDA that might give a theoretical contribution to this new sub-field.

In conclusion, the shift toward a methodological expansion on DI research aiming to better measure DI as an ‘umbrella construct’ as discussed before, supported by the rationale that a DI study requires an explicit examination of the destination characteristics, mainly when dealing with new types of destination and new forms of tourism, entirely justifies and recommends the use of a MMR approach. The central argument of MMR is that a combined use of qualitative and quantitative approaches provides a better understanding of research problems than either approach alone (Creswell and Plano Clark, 2011). This approach is based on the pragmatic paradigm supported by pragmatic researchers (Onwuegbuzie and Leech, 2005) or the ‘third methodological community’ (Teddlie and Tashakkori, 2012) for whom qualitative and quantitative research strategies are neither mutually exclusive nor interchangeable, but understood as an ‘interactive continuum’ (Newman and Benz, 1998). Therefore, for this thesis a DI study should not use only a single approach, but rather both. Presenting to survey respondents in order to rate attributes of a predetermined destination is not sufficient when investigating a construct (DI in this case) that is complex by nature. In

addition, this is an image assessment of a completely new phenomenon, a new study object for DI research (lake tourism).

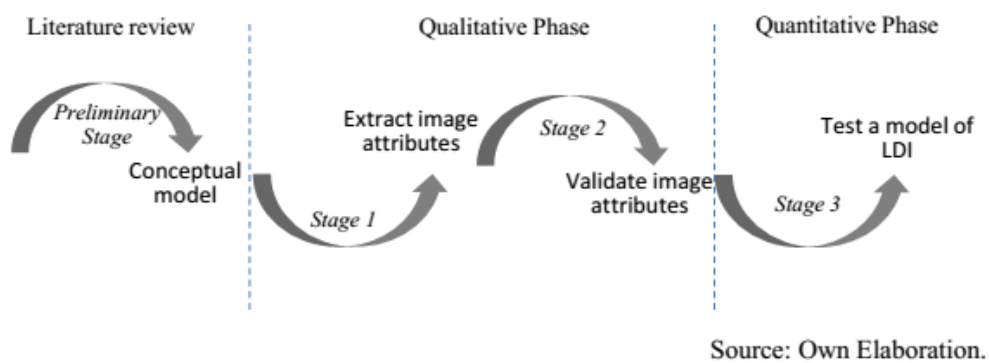
In this study, the purpose of a mixed-methods design is both *complementarity* and *development*, which implies a sequential use of qualitative and quantitative methods (Greene *et al.*, 1989). The aim is to increase interpretability, meaningfulness and validity of DI construct, seeking a clarification of the results from one method with the other. Additionally, the results from one method (in this case qualitative, phase one and two) can facilitate the development of the other (phase three), as well as the explanation of their findings (Martín and Rodríguez del Bosque, 2008). Since a mixed-method study is continuously providing answers to the research questions, this study decided to choose ‘exploratory design’ as the data collection strategy (Creswell and Plano Clark, 2011). In this type of design the data are first collected in the qualitative stage, then analysed, and the information is used to develop a follow-up quantitative phase of data collection. Thus the second phase, quantitative, builds on the first and the sampling process occurs in these two connected phases. Therefore, one of the contributions of this thesis is simultaneously illustrating the utility of a mixed-methods design applied to a DI study. Therefore, the philosophical assumption of this work rests on a worldview mainly based on pragmatism, which is problem-centred, pluralistic and real-world practice oriented (Creswell and Plano Clark, 2011; Creswell, 2013), which implies collecting data either simultaneously or sequentially in order to understand the research problem (in this case sequentially).

1.7.2 Overview of the Research Design

This mixed-method study will address the dimensions and variables specifically involved in the image formation of LDAs; contribute to conceptualizing LDA and lake tourism; and establish an initial approximation of the characteristics and behaviour of lake tourists. An ‘exploratory design’ was used where “researchers first collect qualitative data, analyse it, and then use the information to develop a follow-up quantitative phase of data collection.” (Cresswell and Plano Clark, 2011: 187). In this study the methodological approach is comprised of a three-phase model (Figure 1.7) with (i) the initial or preliminary phase to specify the domain of the constructs and identify the main DI attributes in existing literature; (ii) phase one to extract image attributes more related to LDA and explore lake tourism concept (iii) phase two to

assess the applicability of items/attributes in an existing LDA, and (iv) phase three to test the LDI model. Website content-analysis and semi-structured interviews with stakeholders from the tourism industry were carried out. Because there are no existing instruments to assess the image of LDA, an instrument needed to be developed based on the qualitative views of participants. Therefore, a questionnaire was designed and implemented to collect data from tourists visiting an LDA located in Portugal, specifically the Alqueva Lake.

Figure 1.7 – Methodological Approach: Three-Phase Model



Section 1.4 illustrates in detail the research design of this exploratory mixed-method study, and it was developed according to general rules for drawing visual models for mixed-methods designs (Ivankova *et al.*, 2006). The graphical representation helps to portray the sequence of the research activities in a mixed-method study (Tashakkori and Teddlie 1998; Creswell, 2013; Creswell and Plano Clark, 2001). The model points out the priority of the quantitative and qualitative phase and specifies the data collection, analysis procedures, and lists the products or outcomes from each stage of the study. The reason for collecting both qualitative and quantitative data is that after an initial exploratory phase, an instrument design emerges and then a phase of testing and administering that instrument follows.

1.7.3 Methodological Procedures

1.7.3.1 Stage 1: Website Content Analysis of Text and Pictures

This stage is based on content-analysis of text and pictures. In terms of the use of qualitative data, textual and pictorial data started to be used in DI studies mainly in the

2000s, based on the imagery processing-theory (MacInnis and Price, 1987) as a new paradigm applied to consumer behaviour. Feighey (2003: 77) vigorously highlights the potential important contribution of visual-based research in tourism studies when he states that “the considerable theoretical and methodological space between researcher-found images and researcher-created images potentially offers tourism scholars opportunities to establish alternative approaches to vision and visibility in tourism”. This idea was reinforced by Jabosen (2007), specifying the application of photo-based research approaches in tourism. Visual stimuli such as travel photography have been used as a methodological approach (e.g. Dadgostar & Isotalo, 1992; Greaves & Skinner, 2010; Mackay & Fesenmaier, 1997). In fact, the focus on the use of imagery processing-theory as a way of assessing DI was brought in by Echtner and Ritchie (1991). A milestone in including the visual element in assessing DI was MacKay and Fesenmaier’s piece of work (1997). Since then, pictorial materials (in addition to textual data) have been analysed by several techniques, such as content-analysis (Kozak, 2006; MacKay and Couldwell, 2004; Govers and Go, 2005; Choi *et al.*, 2007, and more recently Hsu and Song, 2013 and Oliveira and Panyik, 2015) just to mention some examples.

As the objective in this stage was to explore the main attributes that might potentially influence this type of destination, but simultaneously contribute to conceptualizing and defining lake tourism as recent research area, a more interpretative technique was needed, such as content-analysis. Content analysis was used as a research technique for making replicable and valid inferences from data to their context (Krippendorff, 1989; Bardin, 1979). From this perspective “photographs, videotapes, or any other item that can be made into text are amenable to content analysis” (Miles and Huberman, 1994: 240). As Krippendorff (1980: 23) stated “we, too, demand content analysis to be predictive of something that is observable in principle, to aid decision making, or to help conceptualize that portion of reality that gave rise to the analysed text.” Content analysis allows the researcher to validate theoretical issues to strengthen comprehension of the data and has come into wide use in tourism studies in recent years (for more information see Stepchenkova and Mills, 2010). The analytic procedure was based on the general stages of content-analysis procedure in Krippendorff’s (1989) six steps (design, unitizing, sampling, coding, drawing inferences and validation). The goal here was to adopt a mixed interpretative-quantitative approach of content analysis, in order

to measure the information (in this case extract the sub-categories and image items of text and photos), as well as the nature of the topic under study (lake tourism and LDI in this case). This was the procedure of analysis used in Papers 4 and 5 based on Miles and Huberman's rational:

I argue here that content analysis can be effective in qualitative analysis – that “counts” of textual elements merely provide a means for identifying, organizing, indexing, and retrieving data. Analysis of the data once organized according to certain elements should involve consideration of the literal words in the text being analyzed, including the manner in which these words have been offered. (Miles and Huberman, 1994: 242)

Despite that fact that tourism researchers have been reluctant to place confidence in the use on computer-aided text analysis (CATA) as concluded by Stepchenkova and Mills (2010) in their meta-analysis paper, this study (stage one) decided to adopt a combination of two different software packages for a single test analysis project (Alexa and Zuell, 2000). The above mentioned authors, conducted a review of 16 CATA programs and found that all have their strengths and weaknesses and the idea is to integrate in order to increase the usage of text analysis programs. Some DI studies have also used this approach (Stepchenkova and Morrison, 2006; Ryan, 2000). Papers 4 and 5 follow a similar approach (Ryan, 2000), first using categorical software to specifically aid researchers to develop classifications from units of analysis such as text. The goal here was to use the coding procedure as a way of generating ideas and not only description and analysis. Then, software was used to count frequencies of words and identify connections between words.

Based on this, WebQDA (Web Qualitative Data Analysis) a very recent Portuguese software for use in collaborative distributed environments (www.webqda.com) was used. This software follows the design of the most used proprietary software – Nvivo, Atlas.ti, MaxQDA – with the difference that is possible to work collaboratively online in real time (Souza *et al.*, 2011). In order to assure the reliability of these outputs, a different method of analysis was adopted through the use of a computer-aided text analysis named CATPAC (v. III), which “is able to identify the most important words in a text and determine the patterns of similarity based on the way they are used in the

text” (Woelfel, 1998: 11) (for more detailed explanation of the content-analysis procedure see Papers 4 and 5).

The scales analysed in the literature review (considered as the preliminary stage in the research design) do not correspond well to the object under study, specifically lake tourism and LDAs. Having as a base line the list of the most common DI attributes proposed by Gallarza *et al.* (2002), an extension of the period was considered (2000 to 2012) in this study as previously explained. In fact, it was confirmed that lake tourism and LDAs have been totally absent from DI research, with very few exceptions (Hall and Stoffels, 2006; Sievänen *et al.*, 2006; Tuohino and Pitkänen, 2004).

Therefore, in this study and considering the research design explained in the previous section, a set of image variables that formed the image of LDAs were extracted (see Paper 4). In this stage a selection was made regarding the source of the data sample, the data sample itself, data collection, software selection for data analysis, etc. Concerning the data source an online search was conducted. In the first place the DMO official websites were considered as a possible data source. The search was determined by two assumptions: a) the use of DMO in general of a lake-destination area, searching for lake topics; b) the use of an official destination website specifically of a lake area or a lake. However, after an exhaustive search soon it was concluded that lake tourism and LDAs are not being yet promoted as a specific product or type of tourism by DMOs (except in very few cases in some lake systems in Hungary or northern Italy, the Lake District of England or Finland or the Great Lakes of North America), which cause difficulty. Further, there was not a sufficient level of standardization in terms of information, which complicated the content-analysis procedure.

Finally, after an exhaustive search, an online directory for lake enthusiasts containing a worldwide database of about 1695 lakes and reservoirs spread throughout the world was selected (cf. www.lakelubbers.com). This was considered an appropriate database since the aim was to generate a sample of image attributes specifically related to the lake tourism context. The criteria for selecting the final sample are explained in Paper 4. Table 1.4 displays the result of the unitizing and sampling procedure of content analysis. A total of 40 lake descriptions (textual data) and 124 photos (pictorial data) from the sampled website were collected and grouped by country to constitute the sample of this study.

Table 1.4 - Unitizing and Sampling Procedure of Content Analysis: Sampling Units of Text and Photos

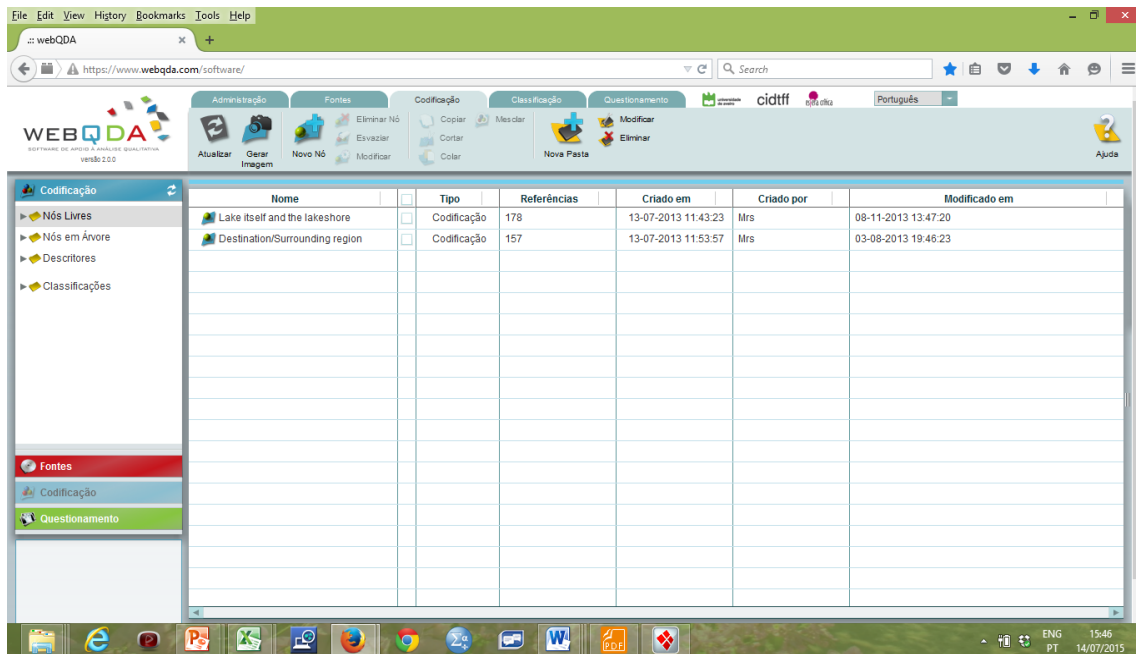
Country	Lake	Code	Nº of photos	Country	Lake	Code	Nº of photos
Austria	Lake Attersee	AU01	5	Macedonia	lake Ohrid	MA21	5
	Hallstätter See	AU02	5		Lake Prespa	MA22	1
Bulgaria	Smolyan Lakes	BU03	0	Netherlands	Lake IJssel	NE23	2
					Lake Markermeer	NE24	3
Croatia	Plitvice Lakes	CR04	5	Norway	Hornindalsvatnet	NO25	3
					Lake		
Finland	Saimaa	FI05	5	Poland	Śniardwy Lake	PO26	0
	Päijänne	FI06	5		Ilawa Lakeland	PO27	0
France	Lac d'Hourtins-	FR07	0	Portugal	Alqueva Lake	POR28	5
	Carcan	FR08	3				
	Lake Bourget						
Germany	Lake Constance	GE09	5	Russia	Lake Ladoga	RU29	0
	Lake Muritz	GE10	2		Rybinsk Reservoir	RU30	0
Greece	Lake Kerkini	GR11	0	Slovenia	Lake Bohinj	SL31	5
	Lake Volvi	GR12	0		Lake Bled	SL32	6
Hungary	Lake Balaton	HU13	5	Spain	Las Salinas de	SP33	5
	Lake Heviz	HU14	1		Torre Vieja	SP34	4
					Lake Sanabria		
Iceland	Lake Thingvallavatn	IC15	4	Sweden	Vanern	SW35	4
	Lake	IC16	2		Vättern	SW36	3
	Skorradalsvatn						
Ireland	Lough Foyle	IR17	2	Switzerland	Lake Geneva	SWT37	4
	Lough Corrib	IR18	5		Lake Neuchatel	SWT38	4
Italy	Lake Garda	IR19	5	United	Lough Neagh	UK39	4
	Lake Maggiori	IR20	5	Kingdom	Lough Foyle	UK40	2

Source: Own Elaboration. Data from Lakelubbers website available at www.lakelubbers.com/ (accessed on 20.01.2014).

Analysis of Textual Data

A sample of the texts was used for content analysis from the Lakelubbers website regarding the two research questions of Papers 4 and 5 (to extract image attributes most related to lake tourism and LDA and simultaneously to identify the characteristics and dimensions of this type of tourism). Firstly, a holistic method of coding was used “as a preparatory approach to a unit of data before a more detailed coding or categorization process” (Saldaña, 2009:118). Using WebQDA the coding procedure used two free nodes and it was possible to identify the following two main themes directly linked with the lake tourism concept with the corresponding segments: (i) the lake itself and lakeshore (178 coded segments) and (ii) the destination/surrounding region (157 coded segments) as shown in Figure 1.8.

Figure 1.8 – Results from WebQDA Coding Procedure with Free Nodes



Source: WebQDA web-based computer application.

This allowed the text be broken into broad topics, which contribute to identify basic elements of lake tourism and gave a first glance at important attributes of LDI. From here, a direct approach was undertaken and a codebook based on Beerli and Martín’s (2004a) schema. In fact, the goal here was to conceptually validate or extend a theoretical framework of DI by using Beerli and Martín’s (2004a) scale, but applied to the lake-destination context. The results of a direct coding procedure are shown in Table 1.5, where “Tourist Infrastructures” and “Natural Resources” are the most coded categories (with 231 and 223 segments, correspondently).

Table 1.5 - Results of the Coding Procedure from WebQDA Software

Category	Nº of segments	Category	Nº of segments
	223	Political and Economic Factors	37
Natural Resources		Natural Environment	108
General Infrastructure	37	Social Environment	7
Tourist Infrastructures	231	Atmosphere of the place	114
Tourist Leisure and Recreation	219		
Culture, History and Art	134	Total of segments	1110

Source: Own Elaboration

Simultaneously, a more ‘inductive procedure’ in order to generate sub-categories (see Paper 4) was implemented. This procedure gave rise to 23 sub-categories, through a process of defining categories and sub-categories and development of the corresponding survey items as the first task in content-analysis. Each reference, sentence or a block of sentences was allocated to the corresponding sub-category. After this, a descriptive method that “summarizes in a word or short phrase – most often as a noun – the basic topic of a passage ...” (Saldaña, 2009: 70) was adopted. Figure 1.9 illustrates the final segments (passage of the texts) categorized in each category (e.g. 231 segments in “Tourist Infrastructures” and 222 segments in “Natural Resources”). Appendix 1 reveals the result of this procedure with a final composite list of image attributes mostly related to LDAs. A set of over 100 potential variables were extracted (see Paper 5).

Figure 1.9 – Results from WebQDA Coding Procedure with Tree Nodes

Nome	Tipo	Referências	Criado em	Criado por	Modificado em
Natural Resources	Codificação	222	17-07-2013 19:00:42	Mrs	15-07-2014 15:17:39
General Infrastructure	Codificação	37	17-07-2013 19:46:45	Mrs	06-09-2013 17:38:58
Tourist Infrastructure	Codificação	231	17-07-2013 19:47:06	Mrs	29-08-2013 16:07:22
Tourist Leisure and Recreation	Codificação	217	17-07-2013 19:47:52	Mrs	20-09-2013 13:07:38
Culture, History and Art	Codificação	134	17-07-2013 19:48:17	Mrs	20-09-2013 16:48:17
Political and Economic Factors	Codificação	38	17-07-2013 19:50:38	Mrs	03-09-2013 16:49:21
Natural Environment	Codificação	108	17-07-2013 19:51:21	Mrs	04-09-2013 16:49:38
Social Environment	Codificação	7	17-07-2013 19:51:36	Mrs	02-08-2013 01:27:09
Atmosphere	Codificação	114	17-07-2013 19:51:54	Mrs	04-09-2013 19:01:33

Source: WebQDA web-based computer application.

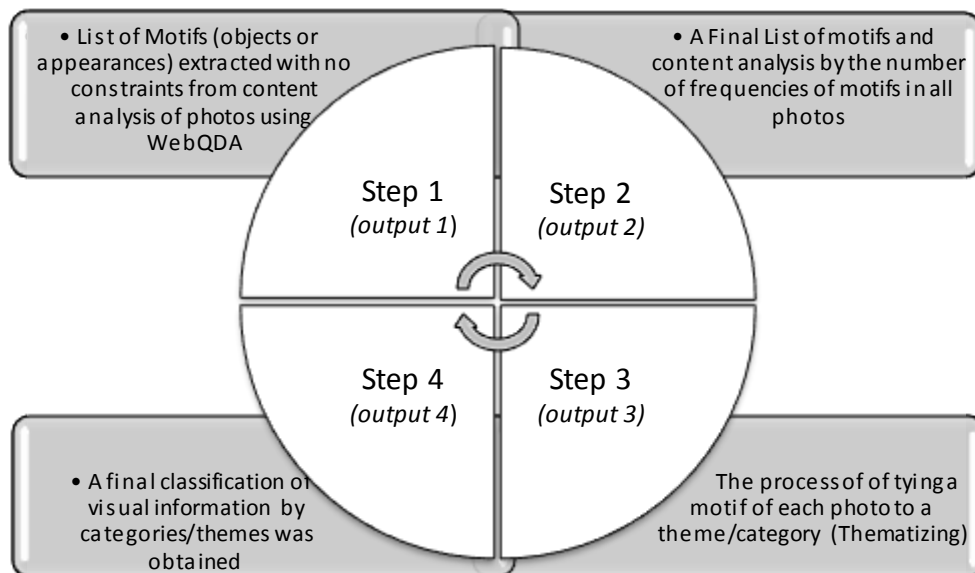
Based on the results from Paper 4 and aiming to advance knowledge of lake tourism as a recent research area in tourism studies and to extract image attributes more related to LDAs, the purpose of Paper 5 is to explore and analyse the findings obtained in Paper 4 through content-analysis and to validate their interpretation. Ryan (1998: 322) suggested that other steps of analysis might be implemented for the refinement of the final results and “one way of attempting to assess this data is to try establishing relationships between phrases and words”. Therefore, by matching the results from

content-analysis with the establishment of associations between words (attributes) through perceptual maps, it becomes possible to assess whether the data are mutually supportive. In order to assure the reliability of these outputs, a different method of analysis was adopted through the use of a computer-aided text analysis named CATPAC (v. III). Other researchers have supported the use of CATPAC as a helpful tool for content analysis in tourism studies (Ryan and Cave, 2005; Choi *et al.*, 2007; Govers and Go, 2005; Govers *et al.*, 2007; Ryan, 1998, 2000). Summarizing, the resulting neural network output was used to identify the words that were most frequently mentioned to portray image attributes related to LDA. (see the detailed explanation of the procedure in Paper 5).

Analysis of Pictorial Data

Figure 1.10 illustrates the procedure adopted for pictorial content analysis, where 124 photos were content analyzed first in terms of *motifs* and then in terms of *themes* (Albers and James, 1988).

Figure 1.10 - Procedure of Pictorial Data Content Analysis



Source: Own Elaboration.

In the first instance all the *motifs* (objects or appearances) shown in every image were identified using WebQDA software. The *motifs* were then isolated, registered, and freely described without any constraints through the use of colourful boxes which encircle them, each one with a spontaneous comment as shown in Appendix 2 (Step 1).

The method was based on using some principles of iconography (Panofsky, 2006; Sternberg, 1997). Other studies follow this procedure (Albers and James, 1988; Govers and Go, 2005; Markwell, 1997; Sternberg, 1997). Based on this methodology, all the *motifs* were first listed, and only after this were they submitted to a process of filtering, clustering or cut-off. An organized list of motifs was obtained (42 in total) in order to measure the frequency of each motif/object present (or not) in all photos (Step 2). Next, with each photo being a case, for each object a count was done to indicate if the specific object appeared in the picture or not. The process of tying each motif to a theme (thematizing) was conducted (Step 3). In sum, this visual method obtained 42 motifs related to LDAs, organized into five categories. Finally, as the 5th and 6th steps, a final classification of the visual information was obtained (Step 4). Appendix 3 displays examples of outputs from the procedure of pictorial data content Analysis.

1.7.3.2. Stage two: Content Analysis of Interviews to the Industry

Paper 6 aims to depict an image which is feasible for LDAs and continues to investigate the nature of lake tourism. The attributes generated from the previous stage were tested by means of different qualitative analysis among stakeholders in the Alqueva Lake. Although Paper 6 presents a detailed explanation of the methods, techniques and analysis procedures (see Paper 6, section 7.3); this section includes information and material that was not possible to take part of Paper 6 due to the limitations imposed by submission guidelines. Given this, seventeen semi-structured interviews were carried out with various stakeholders involved in lake tourism at the Alqueva Lake.

The data sampling follow a *selective* and *purposeful strategy* (Coyne, 1997) which is “shaped by the time that researcher has available to him, by his framework, by his observations....after several observations the researcher will know who to sample for the purpose of the study” (Schatzman and Strauss, 1973, cited on Coyne, 1997: 624). Bearing this in mind, Sandelowski (2000) suggests three kinds of purposeful sampling: maximum variation, phenomenal variation and theoretical variation. The sampling used here is *phenomenal variation* which is “often made a priori in order to have representative coverage of variables likely to be important in understanding how diverse factors configure as a whole” (Coyne, 1997: 182). Therefore, as Martin and Rodríguez del Bosque’s work (2008), the stakeholder choice process was carried out aiming to

reflect the variety of the phenomenon being examined. Various experts professionally involved with the tourism industry were selected as key-informants, such as Public Administration (regional DMO), accommodation, tourist guides, and the outdoor tourism sector. The purpose was to embrace as much as possible different opinions, interests and perspectives about the reality of the destination under study. Thus, their perceptions were examined in order to assess the applicability of image attributes related to LDAs extracted from the prior list (Paper 4). A complete list with detailed information of the respondents can be seen in Table 1.6.

Table 1.6 - List of Respondents (Stage two/Paper 6)

Organization	Respondent/Position in the Organization	Tourism Sector (*)	Date (2014)	Time
EDIA (Alqueva Development and Infrastructures Company)	Director (Development Depart.)	PS	13.05	2h
Amieira Marina	Founder and General Manager	NTO	13.05	2h
Sem Fim Boats	Founder and Manager	NTO	15.03	1h30m
Alqueva Darksy Reserve	Founder and Project Coordinator	A+OTC+TI+NTO	16.05	1h40m
Regional Association of Alentejo Guides	President	TI	19.05	3h
V Sentidos	Founder and Manager	A	23.05	2h30m
Emotion - Life on Adventure	Founding partner	OTC	28.05	1h30m
Alqueva Line	Founder and Manager	NTO	29.05	2h
Spira/Rota do Fresco	Founder and Manager	OTC	9.06	1h30m
Adega da Ervideira	Founder and Manager	ENT	12.06	2h30m
Municipality of Portel	Tourism Coordinator	PS/local	13.06	1h40m
Municipality of Reguengos de Monsaraz	Mayor	PS/Local	16.06	1h20m
ATTGLA	Association President	PS/Regional		(**)
Noudar Nature Park	Operational Manager	A and OT	18.06	1h40m
Break Momentos Fantásticos	Founder and Manager	OTC and NTO	25.06	1h
Monte Alerta	Founder and Manager	A	25.06	1h30m
ERT Alentejo e Ribatejo (DMO)	President	PS/Regional	17.06	1h
ARPTA (Regional Tourism Promotional Bureau)	Executive Director	PS/Regional	30.06	2h

(*) PS - Public Sector; NTO - Nautical Tour-Operator; A - Accomodation; OTC - Outdoor Tourism Company; TI - Tourist Information; ENT - Enotourism. (**) Same respondent than the previous.

Source: Own Elaboration.

The structure of the interview consisted mainly of two sections (see Appendix 4 – Interview). The first is a more structured part where three techniques of extracting data were used (checklist, free-elicitation and photo-elicitation). The intention was to mix the techniques to assess the applicability of the items captured from the previous stage. The second section consisted of seven open-ended questions. Thus, a semi-structured interview was considered the most suitable according to the goals of the research, because “at the root of (...) interviewing is an interest in understanding the experience of other people and the meaning they make to that experience” (Seidman, 2013: 9). The

interviewer is seen as a “traveller”, based on an epistemological conception as a process of ‘knowledge construction’, where the journey might instigate a process of reflection that leads the traveller to new ways of self-understanding (Kvale, 1996). Effectively, some structured protocol was used (mainly in the first part with checklist, free-elicitation and photo-elicitation) with more closed questions. Nevertheless, in the second part a free conversation took place, although seven questions were asked and the interview was conducted to facilitate the comparison of the findings across respondents. As stated by Turner (2010:756) “this open-endedness allows the participants to contribute as much detailed information as they desire and it also allows the researcher to ask probing questions as a means of follow-up”.

The interviews attempted to follow Kvale’s (2007) principles regarding the seven stages of an interview investigation and also the interview situation. Keeping the flow of the conversation, keeping the questions brief and simple and especially listening were constant concerns during the interview process of this investigation, which took in total almost 30 hours (the seventeen interviews together). Therefore, pilot testing was implemented between 4 and 14 April 2014 applied to respondents with similar characteristics to those that participated in this study (Kvale, 2007) (a hotel director, an outdoor tourism company manager, a tourist technician from a municipality and two experts from tourism academia). The results from the pilot test helped to refine the research questions, by detecting limitations or other weaknesses. Finally, all the interviews were recorded and *verbatim* transcripts were made by the thesis author and were subjected to interpretative and comparative analysis.

This qualitative methodology comprises the generation of a checklist, free-elicitation and photo-elicitation techniques within the more structured approach of the interview. Paper 6 explains the associated method and the corresponding results of each technique. However, some appendices need to be referenced in this section of this thesis due to the word limitation in order to better understand the procedure (see Paper 6, section 7.3). This is a type of addendum to this thesis, an addition required to be made, described through the techniques used in this study.

Checklist Technique

Appendix 5 shows the two outcomes generated by this process. According to the respondents, most of the items on the list were judged to be important for LDAs. Based on the initial list and according to the respondents, the column on the left side of the table exhibits a set of 44 items most related to LDA, which might influence image formation of this type of destinations. Moving now to the right-hand column, it shows the image attributes of LDA that most describe the Alqueva Lake as the illustrative case of this study. A set of 37 items can be seen in the corresponding table.

Photo-Elicitation Technique

Appendix 6 shows the subset of photos used throughout the interview process regarding the photo-elicitation technique. The photo elimination procedure was based on considerations such as picture quality (for example too dark, too light, focus on a particular feature) and, mainly, redundancy. The final sample of photos used was selected to reflect the range of destinations components in the study area and was undertaken by academic experts in tourism. The photos were classified according to five categories (see Paper 6). The final subset of photos throughout the interviewing process was based on a mixed approach: photo ratings (Ye and Tussayadiah, 2011) and photo-based open-ended queries (Prebensen, 2007). Each respondent was required to rank photos from different DI categories. The most ranked photos together with the respondent's descriptions are displayed in Figure 1.11.

Open-Ended Questions

According to the goals of this study, the analytic procedure was operationalized through the development of two levels of analysis. Firstly, in order to define the characteristics and dimensions of the Alqueva reservoir as an emerging LDA, a categorization matrix was developed based on a theory-driven approach guided by specific ideas and research questions to be assessed. The data were closely read prior to analysis, but the analysis categories were question-based and determined a priori (Namely *et al.*, 2008). Secondly, a data-driven approach was added to the analysis to some extent, since the goal here was also to discover new keywords, trends, ideas or themes, adding value to lake tourism theory. This mix between a deductive and inductive method attempted to go from codes and categories to theory, from a real to a more abstract level of analysis. The approach here was based on Saldaña's 'pragmatic eclecticism', which means that coding is

needed, although it is important to keep open during the initial coding collection and review before determining which coding methods will be most appropriate. In this study the analytic process used to analysis the open questions was a form of “eclectic coding” (Saldaña, 2009), applying two or more methods when necessary.

Figure 1.11 - Examples of Photos that Best Portray the Alqueva Lake as an LDA per Category with the Respondents’ Description (Photo Elicitation)



Source: Official photos from the former DMO of the Alqueva reservoir (TGLA) with permission.

Given this, a structural coding method (Namey *et al.*, 2008; Saldaña, 2009) was used for content analysis, based on organizing the data around the research questions. Specifically, the seven questions were grouped within three domains of inquiry: (1) *Lake Tourism and the Alqueva Lake as an LDA (LT_LDA)*; (2) *Motivations/Interests versus Activities/Experiences in the Alqueva Lake (MOT_ACT)*; (3) *Promotion and Image of the Alqueva Lake (PRO_IMG)*. These codes names included a prefix for the domain and the identifier for the question topic. For example, within the domain *Lake Tourism and the Alqueva Lake as an LDA*, respondents were asked “How do you define lake tourism based on your experience at the Alqueva Lake?” “The code developed here was *LT/LDA_definition*. Each question and respective response was coded in this way, and so data from the related questions could be easily consolidated and extracted from the full data set. As stated by Namey *et al.* (2008: 141) the structural code “acts as a labelling and indexing device”. In total seven structural codes were created, each one with sub-codes.

Then, a second level of analysis was undertaken, not only descriptive, but also explorative. Based on the seven structural codes, themes started to arise as a way to bring meaning and identity to the data (DeSantis and Ugarriza, 2000). As an extension of the previous one, Table 1.7 shows the procedure and the results of content analysis framed by a structural, descriptive and theming the data as the used coding methods (Saldaña, 2009).

Consequently, through a second level of analysis, these references generated 34 items or ideas. As a result of a more inductive approach, five themes emerged from these items (e.g. ‘awareness of the value of resources’; ‘natural resources’; ‘cultural resources’). The goal here was to mix deductive and inductive approaches to content analysis. Apart from a more qualitative approach to content-analysis, a quantitative approach also was applied (see Paper 6).

1.7.3.3 Stage 3: Questionnaires for the Stakeholders

Paper 7 aims to test the model of the formation of LDI in order to assess image dimensions and propose a set of image variables that create the image of LDAs. Again, this section includes some information and material that was not possible to include in the Paper in question due to the limitations imposed by submission guidelines.

Table 1.7 - Content Analysis of the Alqueva Reservoir as an LDA (Structural, Descriptive Coding and Theming the Data)

STRUCTURAL CODING Structural Code/Sub-Category (n° of ref.)	DESCRIPTIVE CODING AND THEMING THE DATA	
	Themes (n°. of items)	Examples of Respondents' Words
1. LT_LDA_definition 1.1. LT_LDA_definition_General (33) 1.2. LT_LDA_definition_Alqueva (12)	1. Defining lake tourism; 2. Identity of the lake ; 3. Lake as a resource; 4. Planning and management; 5. Surrounding region (43;61)	. " The Alqueva lake has all the conditions to be considered as an LDA but is not yet. I believe that this is a territory with an extraordinary potential , but it still lacks a lot to be a true destination (...)" [R2]
2. LT_LDA_Alqueva 2.1. LT_LDA_Alqueva_Resources (31) 2.2. LT_LDA_Alqueva_Logistical (15) 2.3. LT_LDA_Alqueva_Supply (34) 2.4. LT_LDA_Alqueva_Organizational (36) 2.5. LT_LDA_Alqueva_Meaning (8)	1. Awareness of the value of resources; 2. Natural resources; 3. Cultural resources (34) 1. Tourist signage; 2. Quality of roads; 3. Transport facilities (21) 1. Nautical infrastructures; 2. Tourist leisure and recreation; 3. Tourist infrastructure; 4. Tourist services and information (34) 1. Planning regulations; 2. Management issues; 3. Strategic vision and plan (54) 1. New landscape with water; 2. Integrate landscape, culture, sky, lake; 3. Conditions for dark sky observation; 4. Peaceful and relaxed atmosphere (10)	"Alqueva has a set of natural resources, the landscape itself, the scale, the topography of the lake (...)" [R6] "(...) signage is linked to accessibility. The Alqueva lake is very poorly signed(...)" [R8] "In terms of nautical infrastructures there's only a marina, and some piers at the riparian villages (...)" [R1] "There is no organization that can bring together all the municipalities. There is no communication between the riparian villages and local associations, each one works for themselves (...)" [R3] "(...) and also another aspect is that our cultural heritage resources are so thoroughly mixed with the landscape of the lake." [R18]
3. LT_LDA_SW_Alqueva 3.1. LT_LDA_Alqueva_ST (20) 3.2. LT_LDA_Alqueva_WE (36)	1. Resources and attractions (26) 1. Destination management; 2. General and tourist infrastructures (54)	"(...) in 250 km2 we find very few people, because the surface of the lake is too large. And this feeling is not possible to find in many places in the world. This is an element of differentiation and we must use it (...)"
4. LT_LDA_Future_Alqueva 4.1. LT_LDA_Future_Alqueva (22)	1. Destination management; 2. Marketing and promotion; 3. Resources and attractions; 4. Tourist leisure and recreation; 5. General and tourist infrastructures (57)	" I wish the see a lake that values the natural environment and that could become an international reference in Europe as a starlight destination, with a deep connection to the sky (...)" [R1]
5. LT_LDA_Alqueva_MOT 5.1. LT_LDA_Alqueva_MOT (19)	1. Heterogeneity in motivations; 2. Level of attractiveness of the lake (17)	" The segments are much more specialized, associated with birdwatching, houseboating, stargazing (...)" [R1]
6. LT_LDA_Alqueva_ACT 6.1. LT_LDA_Alqueva_ACT (21)	1. Programmes_ activities Dark-sky; 2. Activities outdoor tourism; 3. Nautical programmes_ activities; 4. Management considerations (26)	"I do all sorts of things, from monitoring of outdoor activities, to guiding pedestrian routes and cultural routes surrounding the historical part. But I can also guide visits that are more linked to nature but not birdwatching. I don't have sufficient knowledge for that." [R5]
7. LT_LDA_Alqueva_PRO_IMG 7.1. LT_LDA_Alqueva_PRO_IMG_STRA (23) 7.2. LT_LDA_Alqueva_PRO_IMG_DIF (17)	1. Formulate destination products first; 2. Strengthen the identity of the lake; 3. Define the promotion strategy (33) 1. Integrated landscape, culture, sky, lake; 2. Topography and surface of the lake; 3. Ideal conditions for a dark-sky observation; 4. Peaceful and relaxed atmosphere; 5. Strengthen tourist experiences and activities (20)	"There has to be an integrated management. I cannot continue to sell dreams. We need to have a master plan for the lake that defines the concept and products that we want to develop for this lake, because if not (...)" [R1] "In the perspective of Dark-sky Alqueva, we find the spirit of the lake in its connection to the sky. And then our own photography, which is astrophotography landscape rather than only astrophotography of the sky, i.e. that connection with the Milky Way, with the beauty of the sky and the landscape" [R4]

Source: Own Elaboration.

Questionnaire Structure

The questionnaire comprised six sections with 23 questions (structured and unstructured questions), broken down into 97 variables (see Appendix 7).

1. *Section A* - which is composed by seven questions allowing us to characterize the visit at the Alqueva Lake and contribute to establish an initial characterization of lake tourists (e.g., trip length, first-time or repeat visitors, type and location of accommodation, sources of information, mode of transport);
2. *Section B* - this part is related to the ABI approach and contains a set of 39 items regarding LDI. These attributes were depicted from the previous stages of the research to assess the DI of the Alqueva lake as a multidimensional construct and were measured using Likert-type scales as in the majority of studies (Pike, 2002), specifically a five-point interval scale. (1='not at all descriptive' and 5='very descriptive')
3. *Section C* - this part comprised photo ranking (Ye and Tussayadiah, 2011) where each respondent was required to rank photos from different DI categories, using a scale of 1 to 5, where 1 is the least representative and 5 is the most representative of the Alqueva reservoir as an LDA;
4. *Section D* - this was a series of open questions designed to allow respondents to think freely about the destination, capture the atmosphere or mood and determine some distinctive characteristics (Echtner and Ritchie, 1991, 1993);
5. *Section E and F* - these covered the socio-demographic profile of lake tourists, in order to extract some pull and push factors and, lastly an open question allowing respondents to spontaneously express their opinion and suggestions about the destination.

Sample

In order to ensure the quality of the results several desk procedures were adopted which determined the validation of the received surveys. Invalidation criteria were adopted to questionnaire with more than 10% of non-responses.

Validation criteria:

1. Given the novelty of some concepts and because the survey was carried out in a recent lake area, in all cases the questionnaires were administered by two

collaborators who worked directly with each respondent. This strategy allowed realizing and validating all the answers;

2. In order to validate the type of tourists question number 1 and 2 was introduced for further confirmation of the length of stay in the Alentejo and the Alqueva Lake separately;

These procedures were adopted even during the project design a pre-test and a number of questions were rewritten to ensure a clear and objective interpretation.

Concerning the primary source data, the sample was calculate based on the number of tourists overnights in the Alentejo region. As it is not possible to assume that all the tourists visit the lake, a binomial distribution with maximum dispersion was used to estimate a representative sample of lake tourists in the Alentejo, for a 95% confidence level, the calculation of the sample allows us to guarantee that the 314 surveys ensure generalisability of results to the population, with an error of 5.8 %. Although given the number of hypothesis formulated and the imposed restriction of ensure degrees of freedom, 11 observations by each hypothesis were guaranteed. Overall 500 surveys were selected for further research. Table 1.8 presents the respondents' characteristics.

Table 1.8 - Respondent Characteristics (n=500)

Socio-demographic	Variables	Frequency	Percentage (%)
Gender	Male	233	46.6
	Female	267	53.4
Age	Mean (male; female)	37.7; 37.9	
	Primary school	35	7
Education/Qualification	Secondary school	186	37.2
	University/college degree	226	45.2
	Postgraduate degree	51	10.2
	Full-time job	338	67.6
Professional Status	Retired	29	5.8
	Unemployed	49	9.8
	Self-employed	22	4.4
	Student	51	10.2
Monthly Income	<2000 €	246	49.2
	2001€-3500€	118	23.6
	3501€-5000€	58	11.6
	5001€ - 8000€	21	4.2
	>8001€	27	5.4

Source: Own Elaboration.

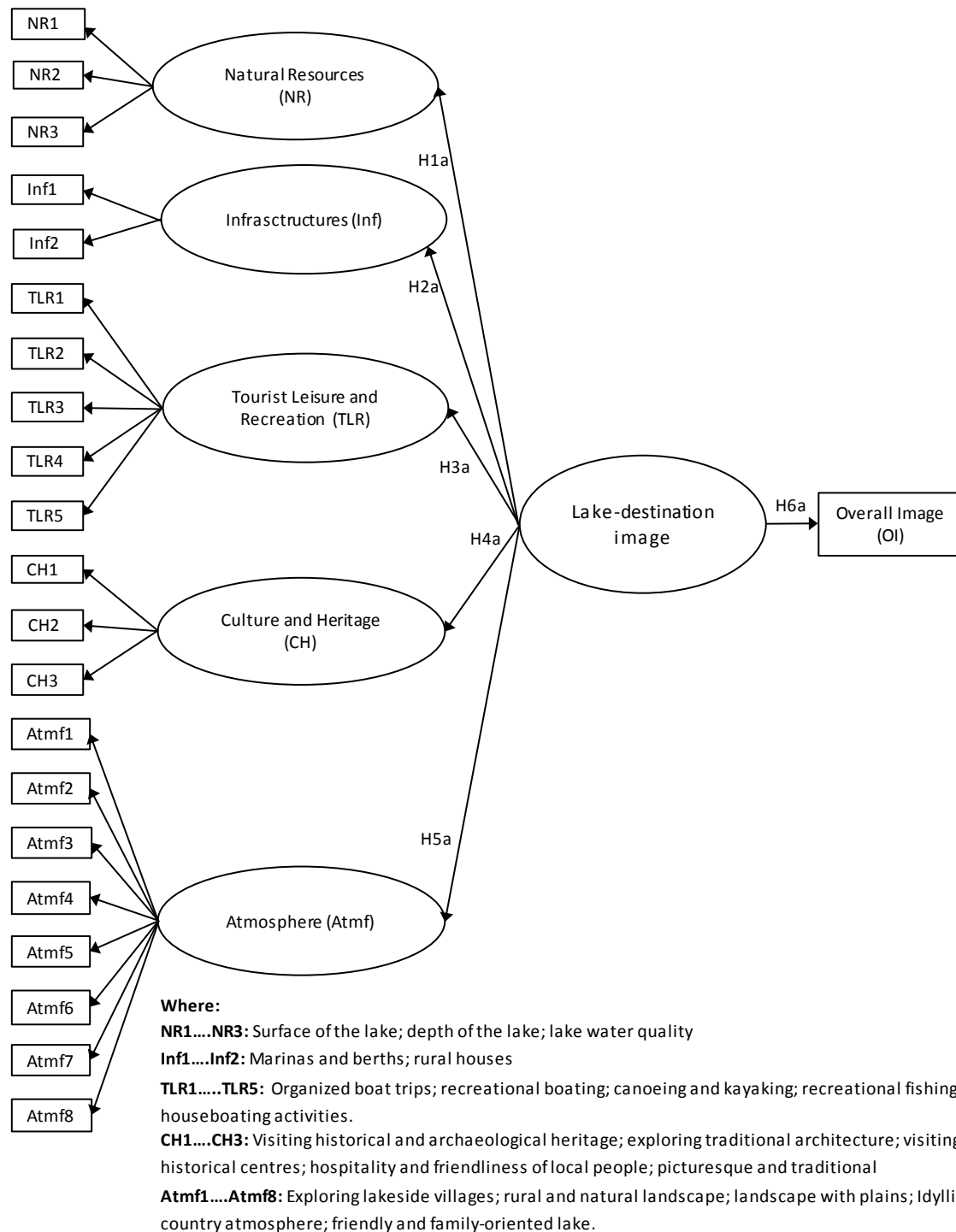
From the first descriptive attempt concerning data analyses of the demographic profile, it was observed that the majority of survey respondents were female (53.4%). Their ages ranged from 18 to 78 years with an average age of 37 years for both and had a high education level (45.2% had at least a university/college level). About 68% had a full-time job, and the largest percentage (49.2%) had a monthly income less than 2000€.

Models

The use of SEM has been growing considerably in consumer behaviour studies (e.g. Demir *et al.*, 2014) and also in DI research (e.g. Bigné *et al.*, 2001; Lee *et al.*, 2005; Lin *et al.*, 2007, Qu *et al.*, 2011) although Gallarza *et al.* (2002) and Pike (2002) did not mention it in their meta-analysis papers. Within DI research, most authors used the SEM methodology to test cause-effect models testing DI and other constructs from behavioural components (e.g. Bigné *et al.*, 2001; Alcañiz *et al.*, 2005) as referenced by Stepchenkova and Mills, 2010), but fewer authors used SEM to test specific structural relationships related to DI nature (e.g. Lin *et al.*, 2007 who tested structural relationships between affective, cognitive image and overall image) and it was scarcely used to test structural relationships between image dimensions such as “natural resources”, “culture and heritage” dimensions and overall image as in this Paper. Further, and grounded on the literature review, the methodology of Paper 7 is based on two approaches, one grounded on a more common approach, namely the ABI approach and the other more grounded on new theories and methods of assessing DI, namely the PBI approach. The influence of these two approaches on overall visitor perceptions of the destination is also examined (for more detailed explanation see Paper 7).

Therefore, in order to assess image dimensions and propose a set of image variables that creates the image of this type of destinations (LDAs) two models were tested based on the above two approaches. Model 1 is based on a set of attributes that measure each image dimension of LDI and Model 2 is based on a pictorial element, in which tourists were invited to rank how each photo meets their perceptions about the construct to which this photo belongs. Six hypotheses were tested in each model. The proposed framework model is presented in Figure 1.12 for ABI. The second model, which aimed to measure the photo-based image of the destination, follows the same conceptual model and the same hypothesis. (H1b; H2b; H3b; H4b; H5b; H6b)

Figure 1.12 - Proposed Framework of Lake-Destination Image Formation

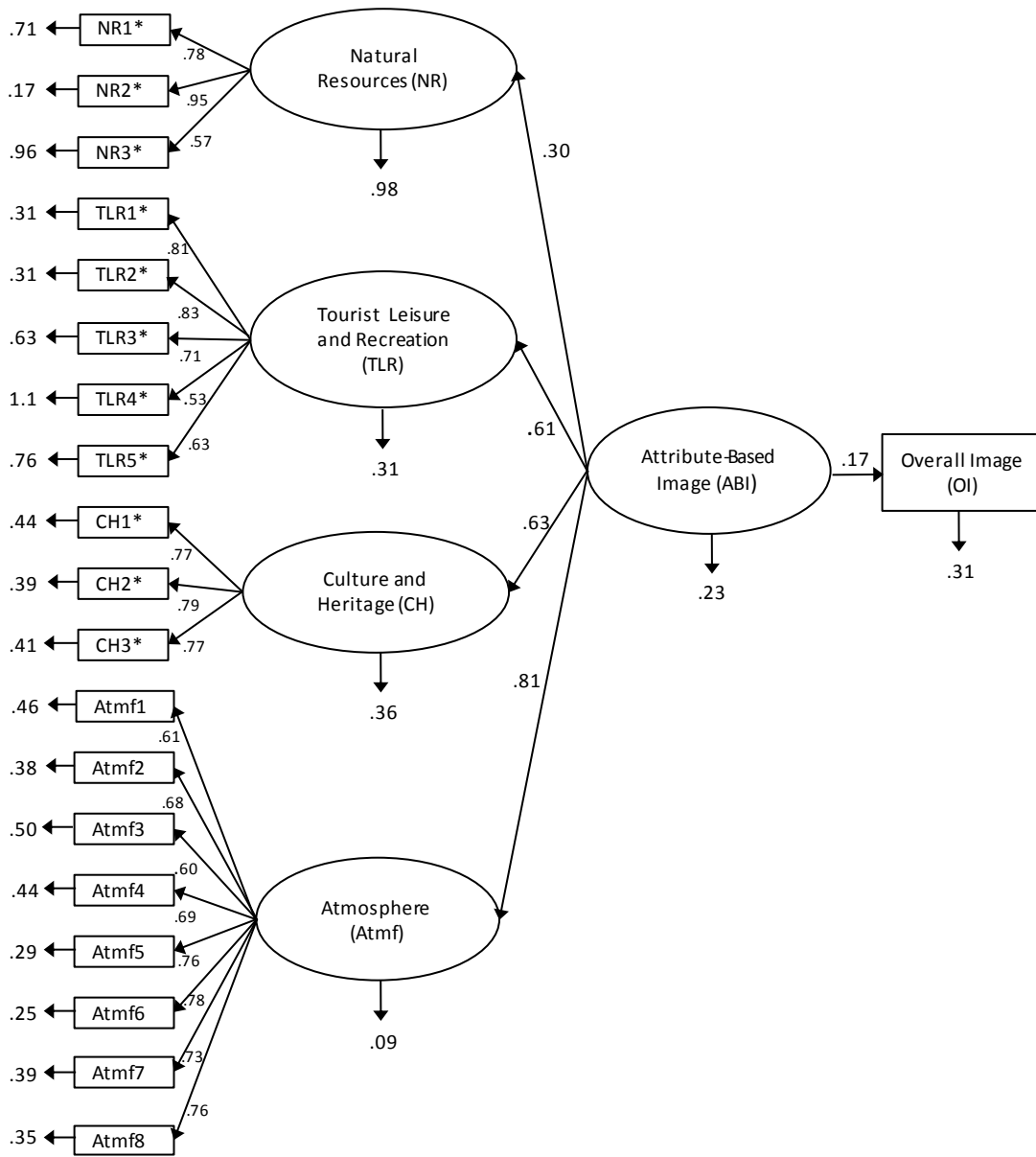


Source: Own Elaboration.

CFA was then used to test the measurement structure of the five constructs mentioned in both models (ABI and PBI) (i.e. “natural resources”, “infrastructures”, “tourist leisure and recreation”, “culture and heritage” and “atmosphere”). As in the next step, a SEM was tested in order to determine the structure of LDI and if the LDI in both models

influences the overall image of the destination. Figures 1.13 and 1.14 shows the standardized ABI and PBI model as estimated by AMOS, correspondingly.

Figure 1.13 - Standardized Estimated Hypothetical Model (Model 1/ABI)



Fit indices: $\chi^2 = 393.920$; $p = 0.000$; $\chi^2/df = 2.40$; GFI = 0.921; AGFI = 0.899; PGFI = 0.719; RMSEA = 0.053

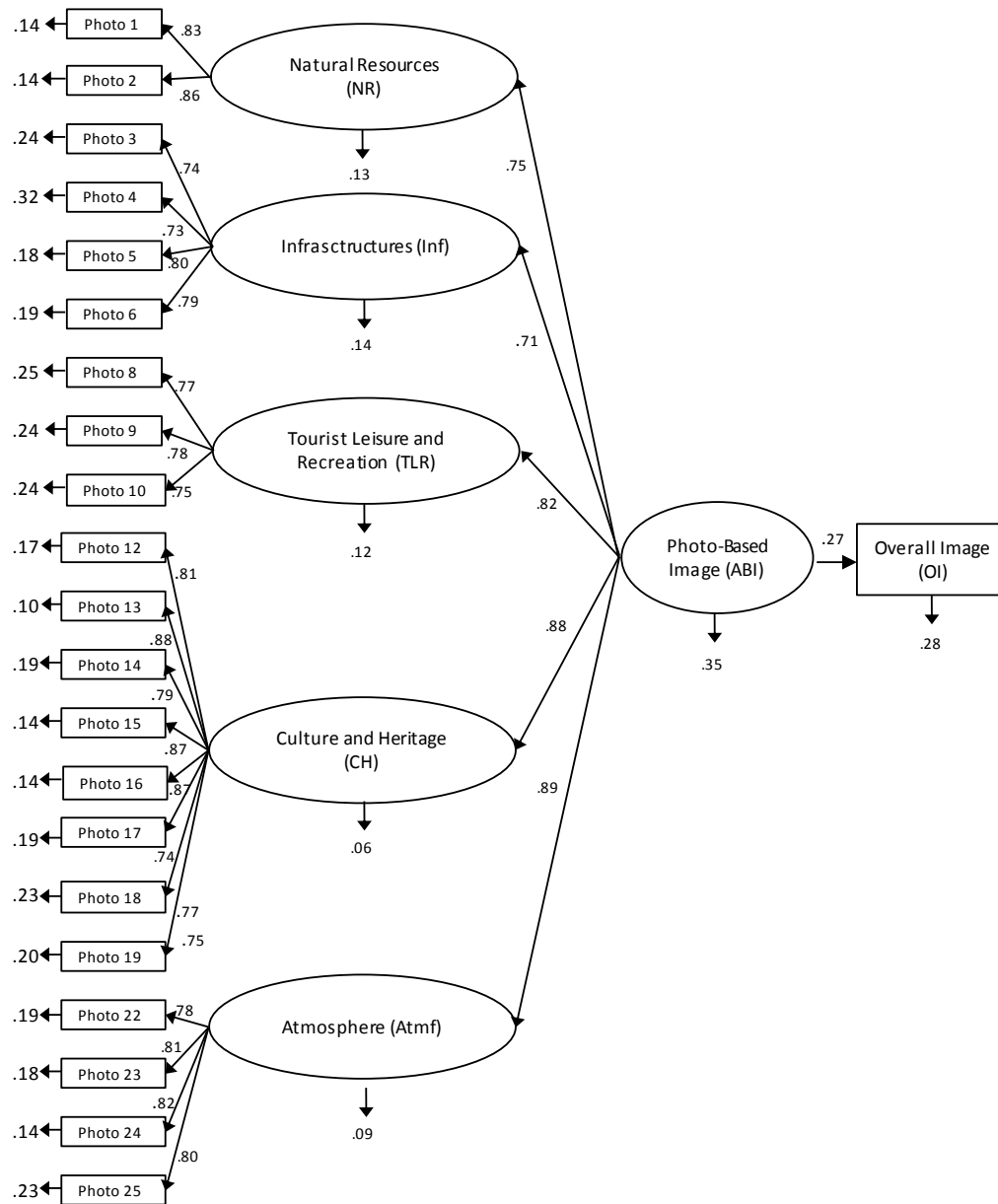
Note: χ^2 = Chi-square; GFI = goodness of fit; AGFI = adjusted goodness-of-fit; PGFI = parsimony goodness-of-fit; RMSEA = root mean square error of approximation

* Please refer to table 8.2, section 8.4.2 for the name of the indicators.

Source: Own Elaboration.

Regarding the PBI model, the same constructs were kept. However, in this model the influence of each is measured by pictorial image in which tourists were invited to rank how a photo meets their perceptions about the construct to which this photo belongs.

Figure 1.14 - Standardized Estimated Hypothetical Model (Model 2/PBI)



Fit indices: $\chi^2 = 627.088$; $p = 0.000$; $\chi^2/df = 3.074$; GFI = 0.886; AGFI = 0.858; PGFI = 0.714; RMSEA = 0.064

Note: χ^2 = Chi-square; GFI = goodness of fit; AGFI = adjusted goodness-of-fit; PGFI = parsimony goodness-of-fit; RMSEA = root mean square error of approximation.

Source: Own Elaboration.

Thus, the questionnaire also includes visual elements for assessing LDI, classified in five dimensions derived from the findings of previous stages of the research (see Paper 4). The photos used for ranking in the questionnaire are illustrated in Appendix 8. The photo ranking results for Model 2 (PBI) is presented in Appendix 9.

Following this introductory chapter, the next chapters (two to eight) examine the contributions of the seven Papers presented at conferences and/or submitted or published in academic journals or book chapters analysed separately. Chapter nine covers the main conclusions, theoretical and practical implications, limitations of the study and future research.

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CHAPTER 2

**A MULTIDISCIPLINARY APPROACH ON DESTINATION IMAGE
CONSTRUCT**

(PAPER 1)

A MULTIDISCIPLINARY APPROACH ON DESTINATION IMAGE CONSTRUCT

ANA ISABEL RODRIGUES, ANTÓNIA CORREIA & METIN KOZAK¹

Abstract

Destination image has a significant theoretical and practical contribution in tourism. Since the last four decades conceptual and empirical studies concerning this topic have been conducted. However, there is still a lack of theoretical framework due to the complex and multiple construct of destination image. This Paper presents work in progress towards the development of a destination image model and intends to present some reflective thinking concerning image and destination image research. A review is provided and a way towards a theoretical framework based on an alternative approach is presented. Following the assumption that destination image construct is ambiguous a broader understanding grounded on a multidisciplinary approach is required. Recommendations are made for using this holistic conception on destination image research, aiming at a future development of an integrative model to be applied on the Alqueva Lake, the largest man-made lake in Europe, located in the south of Portugal.

Keywords: Tourism, Image, Destination Image, Multidisciplinary Approach.

¹ This is an Author's Accepted Manuscript of a paper published as: Rodrigues, A., Correia, A. and Kozak, M. (2011) A Multidisciplinary Approach on Destination Image Construct. *Tourismos: an International Multidisciplinary Journal of Tourism*, 6 (3), 93-110. [copyright creativecommons] available online at: <http://creativecommons.org/licenses/by-nc-nd/3.0/legalcode>

Published in December 2011.

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Paper status:

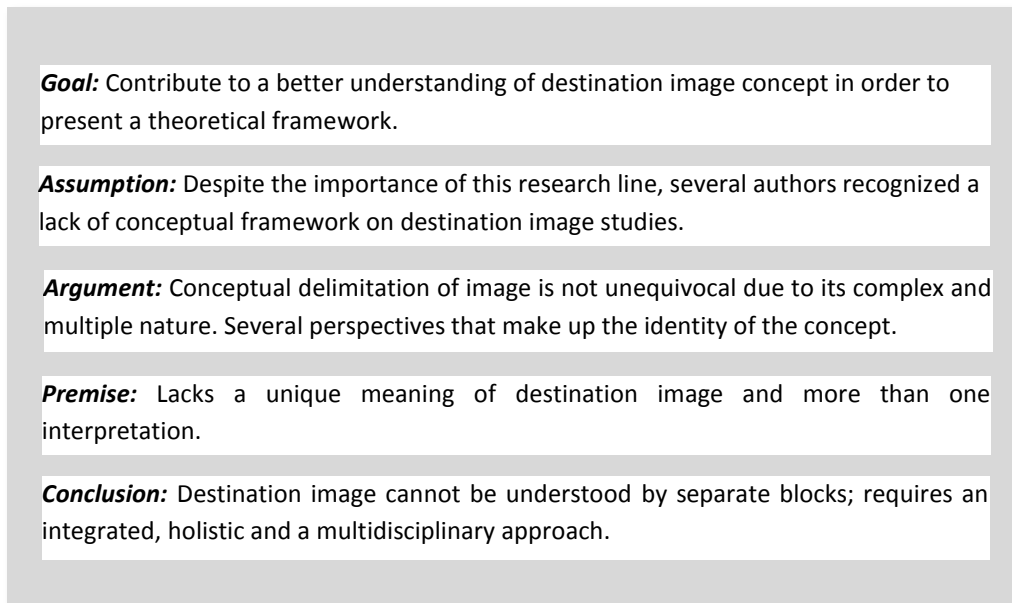
This paper was presented as a **Poster** under the name: Rodrigues, A., Correia, A., & Kozak, M. (2010) 'A Multidisciplinary Approach on Destination Image Concept'. Poster presented at the Consumer Behavior in Tourism Symposium 2010 (CBTS 2010), Competence Centre in Tourism Management and Tourism Economics (TOMTE), Free University of Bolzano, December 1-4, 2010 Brunek, South Tyrol, Italy. [Abstract available online: http://cbts2010.unibz.it/en/program/overview/Documents/CBTS2010_Abstacts.pdf], and submitted as a paper by invitation to be published in *Tourismos: an International Multidisciplinary Journal of Tourism*.

2.1 Introduction

This theoretical Paper presents work in progress towards the development of an integrative destination image model to be implemented in a lake area, located in the south of Portugal, the Alqueva Lake. The purpose of this Paper is three-fold. Firstly, there is some reflective thinking on a broader concept of image. An insight into the multiple nature of the destination image construct is proposed, by highlighting different perspectives and perceptions is proposed. Image is a multifaceted construct whose nature is inextricably linked to other fields of knowledge. In fact, Boulding (1956) proposed 'eiconics' as a new discipline of image theory which draws from a large number of different fields, a similar path to cybernetics. Secondly, particularly related to the topic of this research, a review of destination image literature based on a marketing perspective is presented. Despite the importance of this research line after forty years of work, several authors have continuously recognized a lack of a conceptual framework (Fakeye and Crompton, 1991; Echtner and Ritchie, 1991, 2003; Gartner 1993; Tasci *et al.*, 2007). Tasci *et al.* (2007: 217) stated that "a close look at image theory in the tourism context reveals that a systematized structure has not been achieved in either conceptualizing or operationalizing the destination image construct".

Determining destination image seems, therefore, to be a complex task. As the literature review revealed, destination image construct "is one of those terms that will not go away...a term with vague and shifting meanings" (Pearce, 1988: 162). According to the assumption that this is an elusive construct a more broad understanding is required. Thirdly, this Paper presents a first attempt towards building a theoretical framework grounded on a multidisciplinary approach to the destination image construct. This is in line with Gallarza *et al.* (2002) for whom multidisciplinary is the essential characteristic of destination image. Finally, theoretical and practical recommendations are made for using this alternative approach to destination image (DI) research. For a clearer picture, Figure 2.1 synthetizes the rationale behind this Paper.

Figure 2.1 – Rational of the Paper



Source: Own Elaboration.

2.2. Discussion of Image

2.2.1 Understanding Image

The place of ‘image’ in society has been the centre of an extensive debate worldwide, mainly in the last century. Around the mid-1950s, researchers began to explore the role of image in this context. Boulding’s (1950) book is one of the main references related to the role and importance of image in society. According to him, human behaviour is totally dominated by what man believes to be true; by his subjective knowledge and not by true knowledge. He states that “it is this image that largely governs my behaviour” (Boulding, 1950: 6). Therefore, the world is what man believes to be true and not by truth itself. Boorstin in 1961 also corroborated this perspective in his controversial book. In a rather critical way, he reinforced the strength of ‘image’ in society, specifically in America, through the notion of ‘pseudo-events’, a new phenomenon. These types of events are planned to be reportable in order to create illusions, which have become the America’s business. Through them the power of image is reinforced, because “we have become so accustomed to our illusions that we mistake them for reality (...). They are the world of our making: the world of the image” (Boorstin, 1992:

6). Later on, in 1969, the “Civilization de L ‘image’ by Fulchignoni (Costa, 1992) also highlighted the influence of ‘image’ in a world profoundly marked by visual signs.

Despite the importance of image in contemporary society, its roots are much deeper. Etymologically speaking, ‘image’ derives from *ikon*, a technical term in Greek poems that refers to an image, figure or representation of something. In that context an image was confined to a visual representation of (physical) things that truly existed in reality. Simply put, it transformed physical stimuli into mental pictures. Since the first appearance in English in the 13th century the word ‘image’ has become entangled in multiple and conflicting meanings. Stern *et al.* (2001) refer to it as an ‘elastic referentiality’ accumulated over centuries. According to them, all the definitions listed in *Oxford English Dictionary* can be grouped into three main conceptions: (1) copy of an object from the external world (image as a figure, aspect, reflection); (2) a symbol of an object from a representational world (image as reproduction, imitation); (3) idea of an object from an internal world (mental image, perception, impression). In this line of thought, Costa (1992) also considered three main types of images: (1) ‘retinal images’ that are formed by the retina; (2) ‘material images’ produced by man based on an iconic world; and (3) ‘mental images’ originated through perceptions based on man’s experience. As a consequence of the definitional ambiguity, image construct has been used inconsistently. Image is, nowadays, an elusive concept, a single word that represents different ideas. There is not one image, but several images. In fact, it might be said that there is not a single image of image.

Based on the above observations, image seems to be a broad idea/domain that includes a diversity of phenomena and rests on the contribution of several sources. Stern *et al.* (2001) noted that poetics, semiotics, linguistics, philosophy were responsible for etymological detours since the term first appearance in the 13th century. This line of thought concerning multidisciplinary perspective towards the image construct seems to be the driving force behind Boulding’s (1956) rationale. He proposed ‘*eiconics*’ as a new discipline explaining that “theory of image does provide a basis for the integration of a great deal of intellectual work which previously has seemed rather unrelated” (1956: 160). Furthermore, this field (*eiconics*) would then provide a way to organize a large body of knowledge around the concept of image, following the same path as cybernetics. A similar point is found in Costa (1992) when the author goes even further arguing that image, as a form of communication, is considered as a ‘global science’.

This rational is underpinned by principles of integration and coordination which informs 'image' as a field of expertise.

Given the previous assumptions, a multidisciplinary conception seems to provide the groundwork for image as an emergent discipline. The authors previously cited claimed this new body of knowledge as a result of the integration of various theories and methodologies, and not just a collection of different disciplines. In this sense, philosophy, semiotics, psychology and marketing among others, have been focusing on a different dimension of image providing multiple understandings.

2.3 Multiple Contributions

Historically, different aspects of image have been the province of different disciplines. *Philosophy*, in general, has reflected on the relationship between reality and man's perception of it, which is a central discussion in image concept. The long debate between Plato and Aristotle related to world knowledge was just the beginning. Plato argued that knowledge about the world was purely intuitive and emerged from non-sensible forms. Concepts and ideas are innate to man and defined a priori. Aristotle, on the contrary, stated that knowledge was obviously accessible only through man's perception based on his experiences. In other words, nothing exists in the mind without being first perceived through the senses. This profound and interesting debate about reality and how man perceives it gave rise to the development of two well-known philosophical movements (Kastenholz, 2002): (1) the positivist approach, where reality is disconnected from human perception; (2) phenomenological approach, where reality is intrinsically linked to human perception. In sum, *philosophy* contributes to better understand the theoretical foundation of image by bringing a special kind of reflective thinking expertise.

The findings of *Psychology* as a discipline are also of considerable importance for understanding image concept. This field is particularly expert in analysing human processing systems resulting in a significant contribution to image theory. In the mid 1950s cognitive psychology emerged as a separate discipline "concerned with the internal processes involved in making sense of the environment, and deciding what action might be appropriate" (Eysenck and Keane, 1990: 1). The information-processing

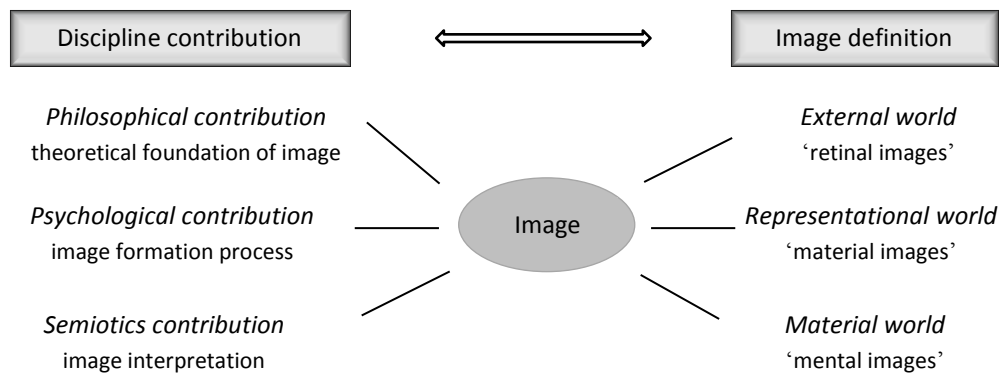
approach was the most adopted by researchers arguing that the information made available by the environment is processed by a series of processing systems. Perception is considered to be one of the most important since information is extracted from environmental stimuli mainly through this process. Later evidence in psychology has demonstrated that imagery also assumes an important role in processing systems research. According to MacInnis and Price's (1987) theory, imagery processing is evoked mainly as a sensory perception, based on man's experience, resulting in mental images. Perceptions, and consequently images, are formed not only through descriptive or discursive information, but also from imagery. Thus, sensory experience assumes a new dimension in the imagery processing approach. This was an important contribution to image theory since it marks the beginning of a 'sensory era'. With this new approach, the study of perceptions as a result of man's experiences and sensations assumes a new dimension in the image formation process.

Another example is related to the *Semiotics* point of view. Symbols, signs and communication have been discussed since Plato, Aristotle, Locke and Leibniz. But it was only in the 20th century that semiotics emerged as a discipline through the work of Ferdinand Saussure, Charles Peirce and Roland Barthes. The sign systems or codes that facilitate production and interpretative responses are the semiotician's scope of study (Mick, 1986). Words, images and objects are signs and a sign needs to be transformed into meaningful information. As "we live in a world saturated with screens, images and objects, all demanding that we look at them" (Mirzoeff, 2009: 1) images, mainly visual ones, require interpretation. As a result of a more deeply visual world, a semiotic subfield has emerged – visual semiotics – founded by Roland Barthes, Lindekens and Umberto Eco, among others (Lefebvre, 1999). According to Lindekens, visual perceptions are the basis of man's language and most mental images are conditioned by visual operations. In sum, semiotics is essentially an instrument through which an idea, a notion, a symbol, an impression or a sensation is transformed into meaningful information. This discipline mainly provides instrumental support to image theory. In conclusion, Figure 2.2 synthesizes the previous discussion, suggesting the interconnection between multiple insights and multiple definitions concerning image.

Finally, as observed before, Boulding (1956) argued that the image concept totally influences human behaviour. After this assertion, marketers started to be concerned with consumers' images about products, services and companies themselves. Since this study

will focus on an intradisciplinary marketing perspective, particularly related to tourism, a first review of destination image is presented.

Figure 2.2 - Multiple Contributions to Image Definition



Source: Own Elaboration.

2.4 Destination Image: a Review

Image is of paramount importance in tourism activity where 'primary resources' (climate, monuments, traditions, ecology) and 'secondary resources' (accommodation, transport, catering, activities) are the basis for the production of services. According to Middleton and Clarke (2004), tourism products are a composite of elements, tangible and intangible, based on an activity at a destination. For them, images are an important component of the tourism product as a result of its generic and particular characteristics. Understanding these characteristics, mainly the specific ones, helps to explain why images are crucial for this activity (Rodrigues, 2004). Intangibility, heterogeneity, and inseparability are the main characteristics of service products (Cooper *et al.*, 1998; Holloway, 1995; Seaton, 1996). Intangibility means that the tourist travel decision is mostly based on impressions, perceptions and ideas. What consumers really buy are invisible elements of the product or destination and not the product itself. At the same time, inseparability and heterogeneity indicate that there is great subjectivity in providing tourism services. The producer (service provider) and consumer (tourist) not only determinately participate in the service, but they are the service itself. In sum, the tourism product is underpinned by impressions, interpretations, perceptions, sensations, and meanings. Simply put, the tourism product is grounded on images.

Added to these generic features, the tourism product has also particular characteristics related to its complex nature. Interdependence of tourism products is the most commonly recognized characteristic, grounded on a combination of several products. Krippendorf (1971) proposed the term 'complementarity' to highlight the idea of interconnection between the different tourism services suppliers (accommodation, transport, attractions). Schmoll (1977:28) confirmed this argument later, saying that "in isolation, the various product elements are of limited value to the tourist - their combination creates great value and desirability". In this context, Buhalis (2000) uses the metaphor 'dynamic wheel' to demonstrate the potential synergy between the various stakeholders involved in tourism development. Positioning and promotional strategies in order to create an effective destination image is a good example of cooperation among different stakeholders. An activity profoundly characterized by a fragmentation among the different categories of tourism services requires a strong image to promote the destination as a whole. Therefore, marketing countries as tourism destinations has become an area of a great importance since the 1970s (Middleton and Clarke, 2004; Morgan and Pritchard, 1999; Munar, 2009; Schmoll, 1977; Seaton, 1996).

At this point it seems appropriate to focus on destination image as a sub-field of destination marketing. This research field has four decades of study, since the definitions of Hunt (1975) and Crompton (1979) were evoked. Since then, several papers have been published in scientific journals (Gallarza *et al.*, 2002; Pike, 2002; Tasci *et al.*, 2007; Stepchenkova and Mills, 2010). Although a substantial number of studies have been conducted for almost four decades, several authors still recognize a lack of conceptual framework around destination image (Echtner and Ritchie, 1991, 2003; Fakeye and Crompton, 1991; Gartner, 1993). There is still no consensus on how to define it as a result of its ambiguity. As Pearce (1988: 162) points out "image is one of those terms that will not go away, a term with vague and shifting meanings". Gallarza *et al.* (2002), in their conceptual model, clearly demonstrate the complexity of the destination image construct concluding that this is a very complex, multiple, relativistic and dynamic concept. They argued that the essential characteristic of destination image research is grounded on its multidisciplinary. Bramwell and Rawding (1996) have also shared this view by broadening the conceptual base of this construct, through valuable insights from three disciplinary perspectives. For them "such different perspectives can usefully be integrated within more sophisticated,

multidisciplinary approaches to place images” (Bramwell and Rawding, 1996: 203). In this sense, multidisciplinary seems to be rooted in destination image construct.

As discussed before, tourism generates intangible products characterized by a constant appeal to dreams, imagery, emotion and sensations; where the notion of service gave place to a new era, that of experience; where the tourist must travel some distance to consume the tourism product. Therefore, the nature of tourism activity implies that image, from a demand or supply perspective, is assumed as a relevant factor for achieving destination success. The most recent destination development models, within the actual paradigm of sustainable development, considered image as a factor that adds value to destinations (Crouch and Ritchie, 2000).

In general terms there is a twofold perspective of image. Firstly, there is a ‘supply perspective’, which considers image as a nuclear component of the tourism product (Middleton and Clarke, 2004). As stated by Font (1997), this is a key element for destination development. Echtner and Ritchie (1993) also argue that image is a strategic tool for destinations since is responsible for their positioning. Image and brand are, in this case, interrelated concepts (Tasci and Kozak, 2006). Therefore, image is assumed as a highly competitive element for destinations (Ahmed, 1991). Secondly, there is a ‘demand perspective’, highlighting the role of image in traveller buying behaviour (Chon, 1990; Crompton, 1979; Hunt, 1975; Martín and Rodríguez del Bosque, 2008, among others). In sum, destination image is intrinsically linked to image construct.

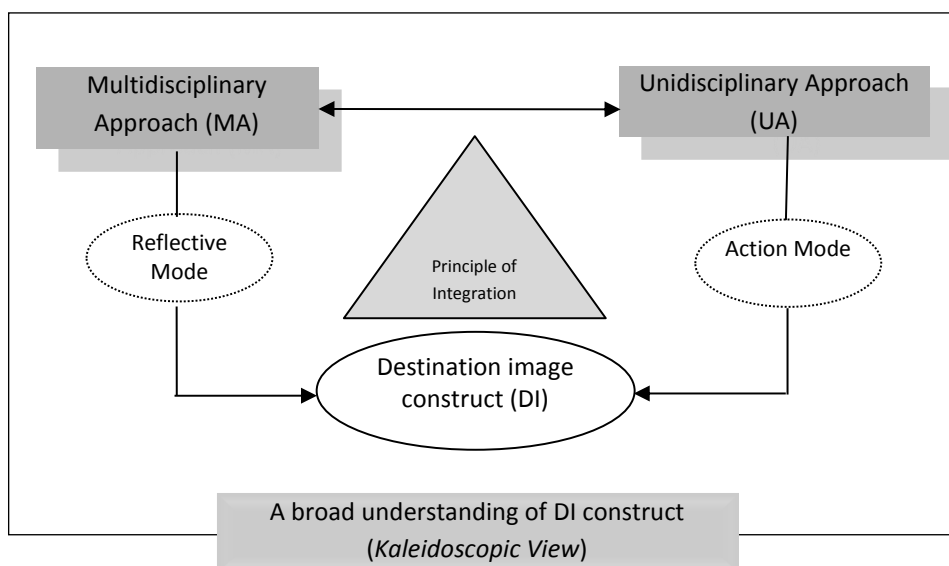
2.5 Towards a Theoretical Framework

Although a substantial number of destination image studies have been conducted, several researchers still recognize a lack of conceptual framework around destination image construct. There is still no consensus on how to define it. Whereas, some authors have argued the need for a broader approach to destination image, only a few have considered it in the total of studies produced over the last decades. It is evident that more research is needed within the framework of a holistic conception of destination image construct, as this Paper proposes.

It was demonstrated in previous chapters that destination image construct is the crux of the discussion. Two different views can be distinguished, as depicted in Figure 2.3. A

‘unidisciplinary approach’ (UA), which explores the construct based on a single viewpoint from a single discipline, and a ‘multidisciplinary approach’ (MA), with a broader understanding, where different perspectives, standpoints and theoretical predilections from several disciplines are considered (Rodrigues *et al.*, 2010). This study will adopt the latter, considering the multidimensionality of destination image construct discussed in the last chapters. As a result of theoretical complexity and limitations of this construct (Echtner and Ritchie, 1991, 2003; Fakeye and Crompton, 1991; Gallarza *et al.*, 2002; Gartner, 1993), a broader approach argues that a multidisciplinary perspective will enrich a more marketing-oriented perspective (unidisciplinary approach).

Figure 2.3 - MA and UA on Destination Image Construct



Source: Own Elaboration.

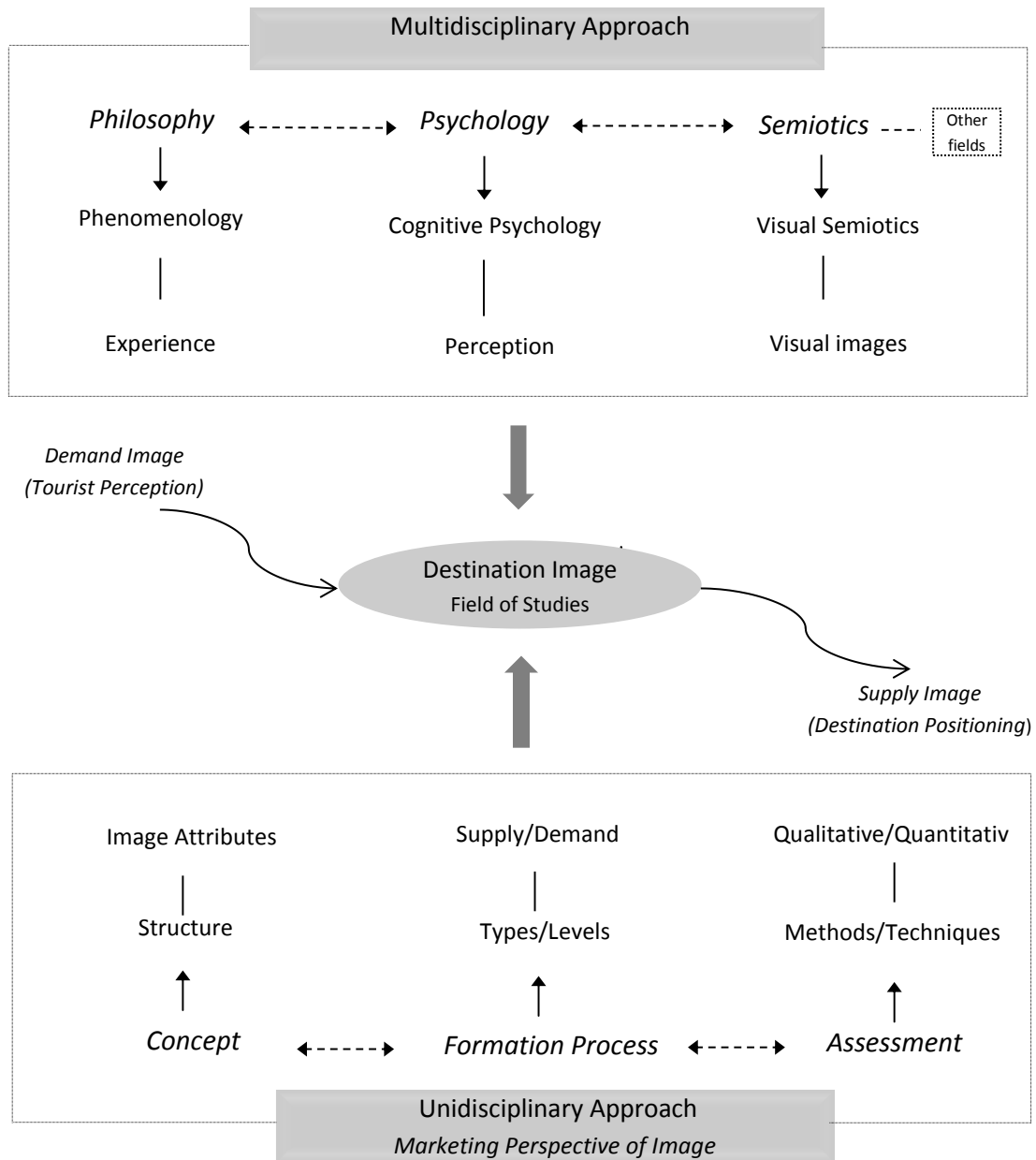
In sum, the two approaches (MA and UA) are related to one another as part of a whole, following the Principle of Integration (PI). The PI consists of two dimensions, namely the dimension of *reflective mode* and the *action mode*, to borrow Tribe’s nomenclature used in another context (2002). The study of one dimension will be influenced by findings from the study of the other dimension. The former refers to a mindfully understanding of image construct, considering different viewpoints from fields such as philosophy, psychology and semiology, among others. This dimension promotes a kind of a reflective thinking when image conceptualization takes place. The researcher becomes more self-aware of the complex and ambiguous nature of destination image

construct through the valuable contribution of different insights. The latter approach represents a more practical view of this construct after understanding its nature (a marketing perspective). The different domains of image are related to one another as part of a whole; therefore the study of an aspect of image will be influenced by findings from the study of another aspect.

In a literature review, Gallarza *et al.* (2002) presented a list of topics which have been discussed in destination image research (e.g. image formation process, assessment, influence of distance and time, role of residents, image policies). These topics represent a more unidisciplinary approach, in this case a marketing-oriented approach. In fact, the overriding aim of UA/marketing is defined by an *action mode*, which represents the operationalization of destination image construct. In conclusion, the PI suggests that both dimensions, the *reflective and action mode*, are important for a more broad understanding of the DI construct which Gallarza *et al.* (2002: 73) named as ‘kaleidoscopic view’.

According to the previous assumption that a MA is required, Figure 2.4 provides a two-dimensional theoretical framework based on this alternative approach. A pre-theoretic specification of the domain under study is the aim of the proposed framework. A key notion lies in the premise that a unidisciplinary research (as a disciplinary marketing study) will enrich the destination image field, if a broader conception (multidisciplinary approach) is adopted. Two dimensions are considered in this model: (i) MA, in which contributions of several disciplines are identified (Philosophy, Psychology and Semiotics, etc.), and (ii) UA, where three main topics covered by destination image field are presented (concept, formation process and assessment). The interconnection between the two approaches/dimensions (MA and UA) can be characteristically summarized by a permanent interaction and integration of both, the conceiving destination image construct as a whole. A more detailed explanation of the framework will be presented, emphasizing the two approaches.

Figure 2.4 - Towards an Integrative Theoretical Framework



Source: Own Elaboration

2.5.1 Multidisciplinary Approach (MA)

Philosophy will be an important contribution for this study, particularly phenomenology as a sub-field, since it represents the interpretative study of human experience. It carefully describes things as they become conscious (Morant, 2000; Li, 2000). The central issue lies in how people exist in relation to their world. Therefore, place (e.g. destination) becomes an important dimension in phenomenological studies (Casey, 1996 cited by Cresswell, 2004). The phenomenology insight allows us to focus on

destination image based on the nature of tourist experience. This experience needs to be interpreted and brought into the tourist consciousness. Access to that experience, which is responsible for conceiving a mental image of the destination, is always dependent on what tourists describe about it.

Concerning the *psychology* perspective, emphasis is given to cognitive psychology, which is concerned with the internal process of making sense of the environment, and deciding what action will be appropriate. From this field, constructs such as perceptions, visual perceptions, emotions, feelings and affects have been analysed in destination image research. Lastly, *visual semiotics* as a sub-field of *semiotics* is basically an instrument which will help to interpret visual images (Echtner, 1999; Pennington and Thomsen, 2010). As pictorial destination images will be one of the domains covered by this study, a semiotic contribution will be strongly considered, within a multidisciplinary perspective.

2.5.2 Unidisciplinary Approach (UA)

This approach is related to the scope of this study - a marketing perspective of destination image. The topics which have been most frequently researched in the study of destination image were described through an extensive research conducted since the 1970s (Chon, 1990; Pike, 2002; Gallarza *et al.*, 2002; Stepchenkova and Mills, 2010). Three main areas of study are considered in this framework – conceptualization of destination image (image attributes), image formation process (types of images) and image assessment (multivariate methods and techniques). All these three subdomains make explicit the bases for providing pre-theoretic assumptions, basic empirical research questions and methodological premises related to the destination image field within a marketing-oriented perspective.

Finally, the interior of the theoretical framework draws attention to demand (tourist's perception) and supply (destination positioning) images. The proposal is to overcome the extensive literature focused mainly on supply attributes, ignoring the fact that emotional responses and awareness, rather than the real characteristics of the destination, are the basis for most tourists' perceptions (Silvestre and Correia, 2005). One of the assumptions of this framework is that an effective positioning strategy of destination is determined firstly by image assessments of the tourist's perception. As

Pike and Ryan (2004: 333) stated, “the positioning is underpinned by the philosophy of understanding and meeting unique consumer needs”. Therefore, studies on tourist satisfaction (Kozak, 2001, 2003; Kozak and Rimmington, 2000) and evaluation of perceptions are of paramount importance in image research. The tourist’s perceptions and destination positioning are interrelated concepts. The former leads to the latter.

2.6 Conclusions and Implications

The meaning, nature and formation of destination image are extremely important for both academics and practitioners in tourism. Researchers have demonstrated its high practical importance for destination management, marketing, and branding. Nevertheless, the emergence of the destination image field has been non-linear over the last four decades of research. Although the associated theoretical development is characterized as being ambiguous and inconsistent, this construct seems to have great potential for blending different insights and contributions from several disciplines. With this in mind, this Paper has established the basis for future work in two ways: (1) by reflecting on image and destination image establishing a pre-theoretic specification of the domain under study; and (2) by proposing a theoretical framework grounded on multidisciplinary, as an alternative approach.

From the review of image and destination image concepts a basic assumption has emerged, indicating that the ‘elastic referentiality’ of the image construct and, consequently, destination image demands a multidisciplinary approach. The image construct field is essentially multidisciplinary in nature, where different aspects are covered by different disciplines. Even in the case of a particularly more discipline-oriented research program concerning image (e.g. marketing), several insights can contribute to its execution. As an example, the philosophical perspective helps to understand theoretical foundation of image; psychology concentrates on image formation; and semiotics focuses on image interpretation. The different domains of image are related to one another as part of a whole.

With regard to the proposed theoretical framework, this Paper argues that a research related to image destination cannot be conducted without relying on a holistic conception of knowledge. Therefore, any research program on image must rely on an interlaced contribution of several disciplines, and not just a collection of conclusions

from individual fields of research (Eckardt, 2001). One of the most important challenges with this alternative approach is to integrate findings and theories into a recognizable specific destination image field beyond disciplinary borders. This integrative theoretical framework will be improved in future work, within the context of a destination image research applied to the largest man-made lake in Europe, Alqueva Lake in Portugal.

Finally, several implications of this multidisciplinary approach should be addressed at this stage of the research. Firstly from a theoretical perspective, despite conceptual deviations, it is clear that the destination image construct has been of great significance in tourism. This alternative approach will highlight the potential of this construct since it crosses the boundaries of several disciplines. A holistic perspective of destination image – in contrast to the unidisciplinary perspective - will allow the establishment of a kind of ‘intellectual linkages’ among otherwise isolated researchers, enriching the body of knowledge. It is assumed that the researchers interested in image domain will be looking for linkages to the work of others, providing a forum to exchange ideas. Furthermore, this approach recognizes destination image as an ‘umbrella’ concept, providing a way to organize a large body of knowledge (Hirsch and Levin, 1999). Individually these theories, concepts and methodologies remain piece meals.

Secondly, practical implications are related to a more global perspective on how tourists perceive the destination. Marketers not only evaluate the perceptions according to a marketing point of view, aiming to promote the destination efficiently, but also consider other insights. It is a way to get out of the rational 4Ps box (product, price, place, and promotion) which is constrained by conventional economic theories of rationality. The practices and academic inquiries into destination image are mainly framed by conventional unidisciplinary understandings of destinations. A multidisciplinary assessment of a destination image will not only follow a conventional and business-oriented line of thought, but will also take into account a sociocultural perspective. Tourists’ perceptions are measured based on meaningful experiences and not only on linear and narrow evaluations. Most of the image studies hold a strong preference for quantitative techniques. Further study will combine quantitative and qualitative methods. It is expected that the integrative theoretical framework grounded on the multidisciplinary approach proposed may contribute to an ‘intellectual dialogue’ among

different disciplines, bringing the destination image construct outside of the conventional marketing constraints.

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CHAPTER 3

**EXPLORING THE LIFE-CYCLE MODEL APPLIED TO ‘UMBRELLA
CONSTRUCTS’:
DESTINATION IMAGE AS AN EXAMPLE**

(PAPER 2)

**EXPLORING THE LIFE-CYCLE MODEL APPLIED TO ‘UMBRELLA
CONSTRUCTS’:
DESTINATION IMAGE AS AN EXAMPLE**

ANA ISABEL RODRIGUES, ANTÓNIA CORREIA & METIN KOZAK²

Abstract

There is no doubt that destination image (DI) is an important sub-field of tourism destination marketing. Several meta-analysis studies have appeared since the emergence of this construct in the 1970s, resulting in almost 300 articles related with this topic. The main stream of DI research was clearly identified by Chon (1990) and updated by Gallarza *et al.* (2002). Despite the existence of such evidence after forty years of research, several authors still recognize the lack of theoretical framework, stressing the difficulty in the operationalization of this construct. The risk of being atheoretical and non-scientific is a reality. But, at the same time, a wider scope of DI studies has emerged, and new methodologies have come to light. Considering these conclusions after four decades of research, a shift from a static to a more dynamic analysis is required. Scientific progress is not linear and cumulative but dynamic and evolutionary. Therefore, this Paper attempts to explore Hirsch and Levin’s (1999) life-cycle model mainly applied to ‘umbrella constructs’ (UC) – encompassing their birth, growth, maturity and decline – as the perfect framework for an evolutionary analysis. Implications of the model for future direction of the DI construct are explored and

² This is an Author’s Accepted Manuscript of a paper published as: Rodrigues, A., Correia, A. and Kozak, M. (2012) Exploring the Life-Cycle Model Applied to ‘Umbrella Constructs’: Destination Image as an Example, *Tourism Recreation Research*, 37 (2), 133-143. [copyright Taylor & Francis] available online at: <http://www.tandfonline.com/doi/abs/10.1080/02508281.2012.11081698#.VbDSCfkkSa4> [DOI: 10.1080/02508281.2012.11081698

Published in September 2012.
The authors retained copyrights in the Appendix 10b.

Paper status:

This is a paper submitted and published as: Rodrigues, A., Correia, A. and Kozak, M. (2012) Exploring the Life-Cycle Model Applied to ‘Umbrella Constructs’: Destination Image as an Example, *Tourism Recreation Research*, 37 (2), 133-143.

elaborated, in order to provide some insights to open avenues along which DI research can scientifically progress.

Keywords: Image, Destination Image, Umbrella Construct, Life-Cycle Model, Evolutionary Stages.

3.1 Introduction

After forty years of research, DI as a construct can be analysed and understood through an evolutionary process. Based on Hirsch and Levin's life cycle model developed for umbrella constructs (UC) (1999), and with an organization effectiveness construct from organizational science as a prototype, this Paper assumes that DI research is not a block-solid or a linear body of thinking. Through three life-cycle stages – emerging excitement, validity challenge, 'tidying-up with typologies' – it is possible to increase the understanding of DI as a phenomenon and to know what to expect and carry out in the future. Some evolutionary elements or periods from specific DI researchers, theories or assumptions within this general schema of analysis proposal, can be determined. The analysis of the DI construct in a long-term perspective provides a more dynamic understanding that is "both descriptively accurate and intellectually valuable" (Hirsch and Levin, 1999: 200). This Paper does not undertake an intensive literature review of DI since reputable systematic review studies were conducted in the past (e.g. Echtner and Ritchie, 1991; Gallarza *et al.*, 2002; Stepchenkova and Mills, 2010; Tasci *et al.*, 2007).

Instead, based on the assumption that the progress of scientific activity is rooted in a cyclical process where different theories, perspectives and techniques are emphasized at different times, the aim is to conduct reflective thinking about the various phases through which this particular scientific field has passed. The life-cycle model seems to set the appropriate framework within an evolutionary analysis, relying mainly on DI meta-analysis papers outcomes. Therefore, it initially provides a context which evidences why DI is considered UC. Next, it describes the development of DI research specifying some conditions and important steps within an evolutionary perspective. The goal is to explore the life-cycle model as a framework analysis (see Hirsch and Levin, 1999; Schwartz and Ibaraki, 2001) applied to UC, rather than to endeavour a classic in-depth literature review. Instead the intention is to find some evolutionary elements taken

from specific different approaches and applications that must be considered as DI research unfolds. Finally, as the future holds further evolution for DI research, the Paper discusses some important avenues along which DI construct and research can scientifically progress.

3.2 The Concept of ‘Umbrella Construct’ and Destination Image

An UC is “a broad concept or idea used loosely to encompass and account for a diverse set of phenomena.” (Hirsch and Levin, 1999: 200). They have argued that this type of construct usually appears in social contexts where different and unconnected elements emerge. A preliminary conceptual distinction regarding what constitutes these elements becomes a priority and, consequently, the need for a kind of theoretical order, a link between world perspectives, meanings and interpretations about an objective reality soon appears among researchers. In fact, a cognitive element seems to be one reason for the initial appearance of this construct being characterized as totally theory-dependent. That is, nothing exists without a sense-making activity embodied in a frame of reference. Table 3.1 highlights the main characteristics of the UC. The meaning of image can be clearly recognized as a UC, and intrinsically, the DI related to tourism research, as further discussion will demonstrate.

Table 3.1 - Main Characteristics of Umbrella Constructs (UC)

Definition	Characteristics
<p>Hirsch and Levin (1999) broad concept or idea used loosely to encompass and account for a set of diverse phenomena</p>	<ul style="list-style-type: none"> . The dynamic of UC takes place between two forces: <i>umbrella advocates</i> (theory) and <i>validity police</i> (measurement). . The field needs the two types of forces to remain both relevant and scientific. . The construct progress is based on dialectic between relevance and rigor, openness and discipline, conceptualization and operationalization. . Consensus on how to operationalize the construct is rarely achieved. . Based on a combination of elements to organize a large body of knowledge. . Unifier among researchers in order to organize an academic field. . Necessary to establishing intellectual linkages among otherwise isolated researchers.

Source: Own Elaboration. Adapted from Hirsch and Levin (1999).

Image has been commonly referred to as a complex phenomenon. It was Boulding

(1956) who first outlined the importance of image in human behaviour. According to Boulding, man is totally dominated by what he believes is true, by an 'image', a vast complexity of values and meanings. Years later, in 1961, Boorstin reinforced the power of 'image' in society, specifically in America, through the notion of 'pseudo-events'. These contributions were decisive for the emergence of image as a research field since they were not limited to reporting observations related to the idea of image, but imputed them with meaning and significance, through an understanding of the world. This was the beginning of image as an UC. After that, the potential of image for consumer behaviour was recognized. Since then, the term 'image' has acquired many and varied types (Stern *et al.*, 2001): brand and product image (Bird *et al.*, 1970) corporate image (Martineau, 1958); and store image (Lindquist, 1974-75; Oxenfeldt, 1974-75).

Most of the image definitions have enhanced the ambiguity of the construct. Image, particularly store image, has been treated in the literature as a mental construct (Reynolds, 1965), a composite (Oxenfeldt, 1974-75). Despite its importance, the term has been used to cover a wide range of ideas and thoughts as an "unfixed referential system" (Stern *et al.*, 2001: 202). Definitely, image was assumed as a vague and elusive term. This ambiguity has led to a construct that is based on a combination of elements aiming to organize a large body of knowledge. But at the same time, characteristic of UC, inconsistencies between the conceptualization of image and its operationalization have been outlined as one of the main concerns related to image research (Keaveney and Hunt, 1992). Within the tourism field, DI has been accurately underpinned by the same course of line as image construct. Since DI is a valuable concept both in destination positioning strategy and the destination selection process, the concept of image has received substantial attention from researchers since the 1970s. As a result, it is assumed by this Paper that DI is a relevant example as an UC in tourism research.

Successive (but incomplete and vague) definitions, with different (but related) taxonomic categorization, and multiple ways of assessment are common characteristics of DI research. After Echtner and Ritchie's (1991) literature review, researchers still recognized a lack of a theoretical framework (Gallarza *et al.*, 2002; Tasci *et al.*, 2007), concluding that "the destination image construct has proven difficult to measure" (Pike, 2002: 542). Therefore, a complex, multiple, relativistic, and dynamic nature clearly identifies the DI construct, according to the conceptual framework suggested by Gallarza *et al.* (2002). This specific nature of DI resulted in a kind of a multiform

theoretical activity wherein (1) DI and other disciplines are intertwined, and (2) multiple interpretations and definitions for the same construct emerged, resulting in theoretical incoherence and validity problems. The central feature of DI seems to represent the idea of ‘summative units’ proposed by Dubin’s (1969) work related to theory building. For him, this type of unit emerges as a “global unit that stands for an entire complex thing” (1969: 60), which draws together a great number of properties interacting with each other, but without explaining how and under what circumstances they interact. This has been the course of the DI construct over the last forty years of research. That is the reason why most DI definitions (e.g. Baloglu and Brinberg, 1997; Crompton, 1979; Echtner and Ritchie, 1991; Phelps, 1986, among others) draw together a number of different elements, and encompass at the same time a mix of terms such as perceptions, impressions, beliefs or ideas. It has the characteristic of meaning a great deal, yet is ill-defined or unspecified. As a result of being an umbrella construct, based on ‘summative units’, a “systematized structure has not been achieved in either conceptualizing or operationalizing the destination image construct” (Tasci *et al.*, 2007: 217). It seems that a clear formulation of the problem behind all these terms that have been used to define DI does not exist yet.

Nevertheless, Stepchenkova and Mills (2010), in a recent meta-analysis of DI, demonstrate that this body of knowledge is in an evolving process. Ten current and emergent trends were pointed out, with a specific reference to the methodological expansion during the last decade, both in quantitative and qualitative contexts. Considering this background, it appears to be important to increase the understanding of the DI construct, within an evolutionary perspective, in order to realize what to expect in the future.

3.3 A Life-Cycle Model Applied to Destination Image

DI research is not a block-solid of thinking. Meta-analysis articles have appeared concerning DI as a field of research since the emergence of the construct in the 1970s. These are systematic reviews which have tried to find all the relevant DI studies, and assess the methodology-based quality of the design and application. This work has resulted in almost 300 articles related to this topic, bringing to light a vigorous and healthy body of knowledge (see Table 3.2).

Table 3.2 - Systematic Review Papers of DI from 1971-2007

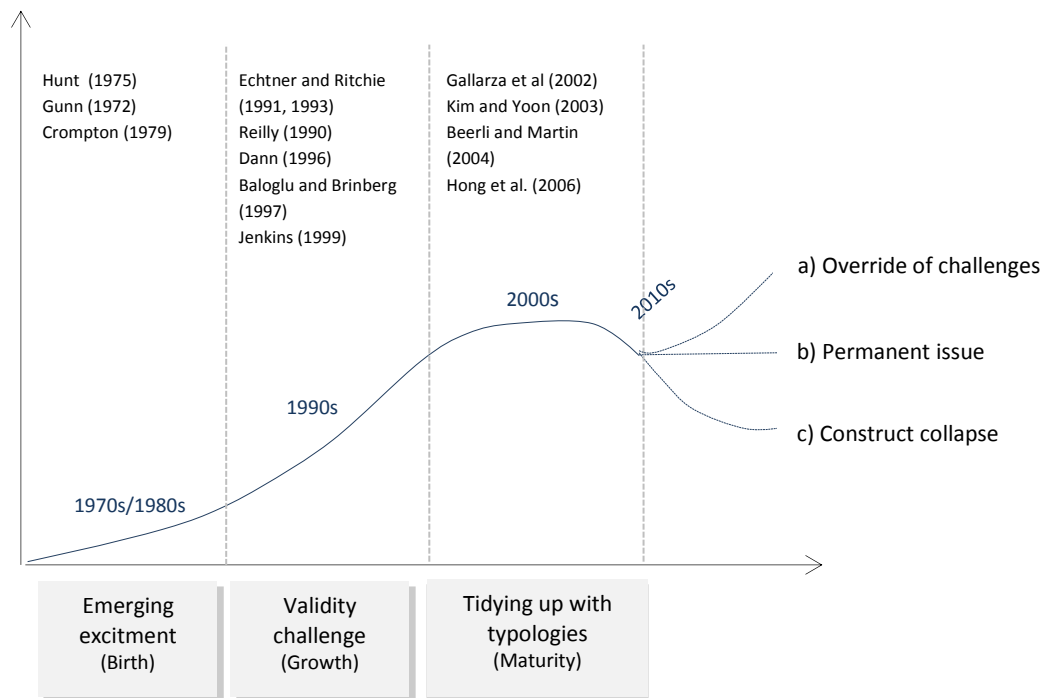
Author/Date	Period of analysis	N° of papers	Criteria
Chon (1990)	1971-1987	23	The most frequently cited article of DI.
Echtner and Ritchie (1991)	1975-1990	15	Major DI studies conducted to date.
Pike (2002)	1973-2000	142	A review of DI papers published in the literature.
Gallarza <i>et al.</i> (2002)	1971-1999	65	Contributions published in main journals and books which detail a theoretical approach to the concept of DI.
Pike (2007)	2001-2007	120	A review of DI papers published in the literature.
Tasci <i>et al.</i> (2007)	1975-2003	-	Article related with the conceptualization and operationalization of DI construct.
Stepchenkova and Mills (2010)	2000-2007	152	Articles on DI published in tourism and non-tourism journals.

Source: Chon (1990); Echtner and Ritchie (1991); Gallarza *et al.* (2002); Pike (2002); Pike (2007); Stepchenkova and Mills (2010); Tasci *et al.* (2007)

Based on this published material, this Paper advocates that scientific progression of DI takes place within a cyclical process where different approaches, theories, and methods are emphasized at different times in different periods. According to this, a life-cycle model applied to umbrella constructs sets the perfect framework to specify the conditions for an evolutionary analysis (Hirsh and Levin, 1999). These authors argue that constructs can be studied and analysed through a more dynamic and dialectic way that “is both descriptively accurate and intellectually valuable” (1999: 200). Therefore, a life-cycle model applied to DI (as an umbrella construct) is here proposed. DI research will be analysed through three different life-cycle stages (1) emerging excitement, (2) validity challenge, (3) ‘tidying up with typologies’ as Figure 3.1 suggests.

After the last stage, three scenarios may burst on the scene (Hirsh and Levin, 1999): either academics (a) make the construct more coherent and consistent (*override of challenges*), (b) agree or disagree over its definition (*permanent issue*), or (c) call for a dissolution (*construct collapse*). By examining the outcomes of the aforementioned meta-analysis papers, the aim is to trace the state of DI research throughout the successive stages, within an evolutionary perspective. The following sections will discuss each one of these stages.

Figure 3.1 - Life-Cycle Model Applied to DI Construct



Source: Own Elaboration. Adapted from Hirsch and Levin (1999); Schwartz and Ibaraki (2001).

3.3.1 The Emerging Excitement (1970s/1980s)

The interesting evidence suggested by Gunn (1972) or Hunt (1975) was decisive for the emergence of DI as a research field. Gunn (1972: 24) stated that “through traveller’s perceptions we can learn more about how land qualities become tourism resources”. Others have followed this course of action suggesting new approaches for DI analysis (Crompton, 1979; Goodrich, 1978a). DI soon emerged as an exciting new opportunity for further study among researchers since it “exerts a crucial effect on consumer choices.” (Correia and Kozak, 2010: 200).

In surveying some of the DI definitions (see Table 3.3), it becomes evident that this is a vague construct; it means all things to all people. Crompton (1979) proposed one of the most cited definitions stressing the fact that image is a sum of multiple elements such as beliefs, ideas and impressions concerning a destination. The ideas of Crompton (1979) were extended further by Phelps (1986) who also defined it based on impressions and perceptions; Gartner (1989) for whom image is a “complex combination”; or Dagostar and Isotalo (1992) as an “overall impression”. Echtner and Ritchie (1991) reinforced the idea of holistic nature of image constituted by multiple attributes and recommended a

conceptualization that could better capture all the components of DI. These brief examples aimed to exert the vagueness of the construct. Images are considered, at the same time, perceptions, impressions or sensations about different attributes of a destination. As a consequence of this tangled nature, Gallarza *et al.* (2002) outlined four features of DI construct: complexity (it is not unequivocal), multiplicity (in elements and processes), relativistic (subjective and generally comparative), and dynamic (varying in time and space), giving rise to the first all-embracing theoretical framework within this field.

Table 3.3 - Selected Definitions of Destination Image over Time

AUTHOR/YEAR/DEFINITION
DESTINATION IMAGE
Hunt, 1975: Perceptions held by potential visitors about an area.
Crompton, 1977: Organized representations of a destination in a cognitive system.
Crompton, 1979: Sum of beliefs, ideas and impressions that a person has of a destination.
Phelps, 1986: Perceptions or impressions of a place.
Gartner, 1986: The tourists' and sellers' perception of the attributes of activities or attractions available within the destination.
Embacher and Buttle, 1989: Ideas or conceptions held individually or collectively of the destination under investigation. Image may comprise both cognitive and evaluative components.
Gartner, 1989: A complex combination of various products and associated attributes.
Chon, 1990: The set of meanings by which an object is known and through which people describe, remember and relate to it. Result of the interaction of a person's beliefs, ideas, feelings, expectations and impressions about a destination.
Echtner and Ritchie, 1991: The perceptions of individual destination attributes and the holistic impression made by the destination.
Dagostar and Isotalo, 1992: overall impression or attitude that an individual acquires of a specific destination. This overall impression is considered to be composed of the tourist's perceptions concerning the relevant qualities of the destination.
Milman and Pizam, 1995: Visual or mental impression of a place, a product, or an experience held by the general public.
Bramwell and Rawding, 1996: Projected images can be conceived as the ideas and impressions of a place that are available for people's consideration; the received images are formed from the interaction between the projected messages and the consumer's own needs, motivations, prior knowledge, experience, preferences, and other personal characteristics.

Source: Gallarza *et al.* 2002; Echtner and Ritchie, 2003; Tasci *et al.* 2007.

The emerging excitement stage also demonstrates that, theoretically, the construct of DI lies at the very centre of multi-item constructs. Different components are used to define, and consequently, to measure this construct. Gartner (1989: 17) points out that "it is necessary to accurately examine an area's image in terms of psychological or perceptual assessment of its attributes." It is interesting to mention that during the first two decades (1970s and 1980s), whereas some researchers focus on DI's functional elements (Embacher and Buttle, 1989), most emphasize the consumer's psychological orientation

(e.g. Chon, 1990; Crompton, 1979), while others conceive image according to a *gestalt* nature, as a total, a sum of attributes (Crompton, 1979). However, there seems to be a contradiction concerning DI measurement. During the first two decades, DI empirical work (e.g. Gartner, 1986; Gartner and Hunt, 1987; Goodrich, 1978a) measured only the functional component of the construct (e.g. accommodation, temperature, sightseeing, among others). It was only in the 1990s that psychological attributes were assessed, e.g. ‘receptiveness’ (Ahmed, 1991; Chon, 1991) or ‘relaxing atmosphere’ (Dadgostar and Isotalo, 1992; Fakeye and Crompton, 1991). However, during this stage, researchers were not certain of what was and what was not to be included in the definition. Seemingly, Tasci’s *et al.* (2007) review of DI studies reveals that it is only with Chon’s work (1991) that the affective component was first measured. Thus, during the 1980s, despite the functional preponderance, some researchers started to draw attention to more emotional and sensory qualities of destinations that could help to fulfil the tourist’s psychological need (Pearce, 1988).

In addition to this ongoing theoretical discussion, it is also important to highlight the two contradictory descriptions that emerged during this stage. Firstly, an *item-by-item evaluation*, in which a group of definitions arise when the term ‘image’ is used to describe individual characteristics, dimensions and attributes of the destination. The consumer is assumed to evaluate the destination attribute by attribute, item by item. This assumption started with Gartner’s (1986: 638) work in the 1980s, when he stated that “even though image may not fluctuate a great deal over time, components of image may fluctuate greatly”. Secondly and within a different perspective, image is based on a *gestalt impression*, a total rather than its parts, a more holistic impression (e.g. Crompton, 1979). Later on, Echtner and Ritchie’s (1991) definition encompasses both perspectives (1) an item-by-item evaluation as a result of individual perceptions of functional and psychological attributes, and (2) a more holistic impression based on combinations and interactions of attributes. This definition is a considerable advance since it represented an effort to develop a more rigorous image construct, which generates the most accepted theory in DI over forty years of research. During this ‘excitement’ stage, the DI theorists start to be aware of the validity problems of this construct, characteristically of UC as discussed in the previous section. However, this is not yet a concern, but soon becomes a reality.

3.3.2 The Validity Challenge (1990s)

Destination image is, definitely, a multi-attribute construct as previously discussed. Therefore, its measurement has been focused on the assessment of multi-attribute-based images (Baloglu, 1997; Crompton, 1979). Consumer decisions built on products' attributes have been covered by the field of marketing since the 1960s (Wilkie and Pessemier, 1973). In 1978 Scott *et al.* were the first to conclude that from a marketing viewpoint a state (destination), like any other product, is capable of being evaluated along with a number of attributes. This piece of work characterizes the beginning of the multi-attribute approach applied to destination as a consumer product. Strong evidence of attributes' importance to define and measure DI was reported by Gartner and Hunt (1987). Therefore, DI as a research field borrowed these multi-attribute models from the field of marketing and they became the mainstream both conceptually and empirically (e.g. Crompton, 1979; Gartner, 1989; Goodrich, 1978a; Hahti, 1986).

After the burst of the construct, as seen before, several different scales were proposed based on a wide variety and number of DI attributes. The question was mainly related to what DI attributes to choose. Gartner (1989), in the transition between the 1980s and the 1990s, was one of the first authors to question this process. According to him "one of the biggest drawbacks with attribute models, weighted or unweighted, is that identified attributes (especially those identified by the researcher) may not actually be the most important attributes in the consumer decision process" (Gartner, 1989: 17). This is an acute assertion since it establishes the basis for one of the most cited problems of DI validity over decades of research. After Gartner, several researchers have continuously stressed this concern (Ahmed, 1991; Dadgostar and Isotalo, 1992). As a result, so many different variables were being used to measure DI that it became practically impossible to comprehend. For that reason, in the 2000s, Beerli and Martín (2004: 624) concluded that "an analysis of the principal scales reveals a lack of homogeneity..." and, as a result, proposed at that time a more consistent list of indicators.

Given this background, the attribute-intensive directive that characterized the first two decades of DI research is grounded on information processing-theory. This approach has mostly determined the methodologies that were used in empirical image studies since the construct's appearance in the 1970s, emerging as the dominant paradigm in DI research. Data collection and data techniques used in DI measurement reflect an

attribute-intensive directive. Consequently, DI research was mainly characterized by a predominance of the quantitative approach; essentially multivariate techniques among the most commonly employed were information reduction techniques (Gallarza *et al.*, 2002; Pike, 2002), mainly multidimensional scaling (Baloglu and Brinberg, 1997; Haahti, 1986); factor analysis (Crompton, 1979); and correspondence analysis (Calantone *et al.*, 1989). The semantic differential scaling (SDS), followed closely by the use of Likert-type scales, were the most current employed techniques to collect data.

However, at a certain point, similar to what has occurred in the field of retail store image, researchers found that piecemeal models did not capture the holistic component of DI. The turning point came with Echtner and Ritchie's work (1991, 1993), at the beginning of 1990s, proposing a new scale to measure the multidimensional nature of the DI construct. This was based on the evidence that the majority of empirical studies from 1975-1990 (Echtner and Ritchie, 1991) assessed DI in terms of attribute lists and not in terms of holistic impressions. They have definitely changed the frame of reference concerning the conceptualization of DI and, certainly, the method of measurement. The theoretical approach of Echtner and Ritchie (1991: 8) can be considered as an evolutionary change in the life-cycle of the DI construct, based on a new conceptual framework wherein "destination image is defined as not only the perception of individual destination attributes but also the holistic impression made by the destination". Thus, it was assumed that previous theory and assessment methods could not capture the 'non-fitting' images, which may have been the most interesting ones. The shift from a unidimensional to a multidimensional perspective of DI involved moving from a static to a more dynamic direction in terms of thought. Analysis of DI then moves from a traditional attribute-based measurement to a broader approach, capable of capturing the *gestalt* nature. This important shift marks the life-cycle of the DI construct and is in line with a more symbolic and aesthetic nature of consumption, based on its experiential aspects as an enlarged view of information-processing theory (Holbrook and Hirschman, 1982) and also with new approaches to imagery processing-theory to evaluate product attributes (MacInnis and Price, 1987).

After Echtner and Ritchie's contribution some attempts have emerged to demonstrate other available measurement options. For example, Tapachai and Waryszak (2000: 37) argue that "this approach [attribute-based processing] is limited in the assessment of

destination image as a mental prototype because it cannot capture the holistic nature of the image (...) ". Therefore, the authors assumed a different premise arguing that DI assessment is based on a schema and not necessary on evaluating attributes anew each time they are encountered. They propose category-based processing in measuring DI, named as beneficial image.

This apparent absence of homogeneity related to DI theory and empirical work have led to a lack of theoretical framework, continuously pointed out by several researchers in the following years (Baloglu and McCleary, 1999; Echtner and Ritchie, 1993). Fakeye and Crompton (1991: 10) were the first to admit "although such [destination image] studies have become a staple of the tourism research agenda, invariably they have been atheoretical and lacking in any conceptual framework." The inconsistency between DI conceptualization and operationalization soon appeared, and has become among the most cited problems in DI research. The 1990s clearly indicated a separation between theory and measurement, a characteristic of UC. Researchers started to question the DI construct validation, which was essential for the theory's development in marketing, as some authors have continued to argue (e.g. Peter, 1981; Steenkamp and Trijp, 1991). This debate explains why this stage is so important in the life-cycle of DI. It was the beginning of the construct validity.

Consequently, alternative methods of DI assessment based on qualitative techniques started to be proposed. By the mid-1990s, some researchers started to be sceptical about the validity of attribute lists, demonstrating the benefits of using a qualitative approach. Reilly (1990) introduced a free elicitation technique as an alternative approach and successive works follow this line (e.g. Coshall, 2000; Pike, 2007). Dann (1996) marks a turning point in the operationalization and measurement of the DI construct. A broad model for conducting DI research, which first incorporates a qualitative phase, followed by quantitative methods, was proposed by Jenkins (1999). Her work makes clear that the quality of DI research will improve from combining qualitative and quantitative methods. This research methodology would close the gap between theory and measurement. The combination of multiple methodological practices and empirical materials in a single DI study, foreshadowed by Echtner and Ritchie (1991), was definitely legitimized.

3.3.3 'Tidying up with Typologies' (2000s)

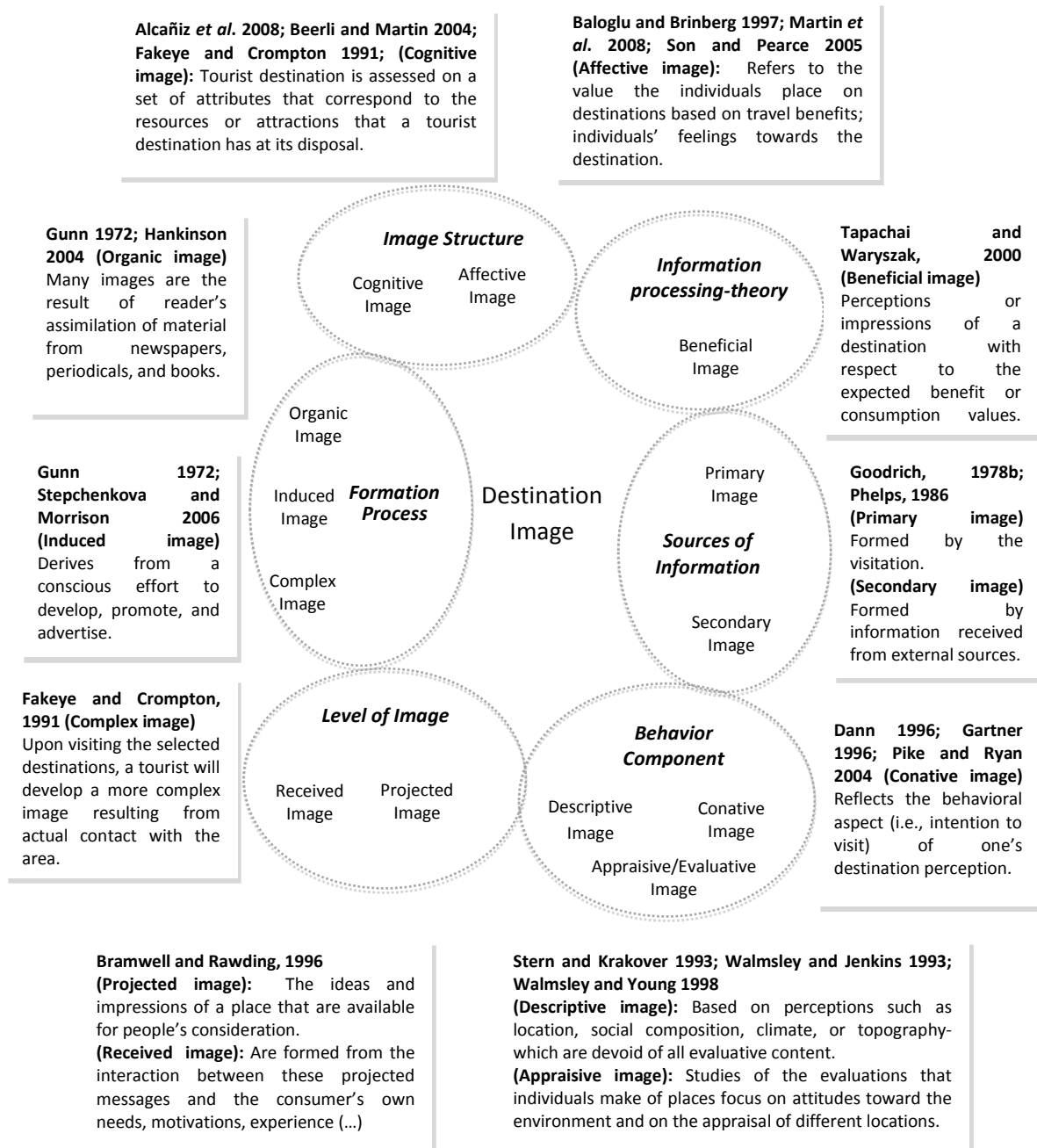
DI research comprises certain materials: it has components; it has approaches and perspectives; it has structural elements, too. As discussed in the previous stages of the life-cycle model, the lack of consensus of what DI meant and, consequently, the difficulties in how to operationalize it have resulted in a categorization stage. It is important to recall the emergence of more detailed papers concerning systematic reviews of DI research during this decade (e.g. Gallarza *et al.*, 2002; Pike, 2002). Meta-analysis studies are points in time that represent the maturity of a scientific field. Pike's review of 142 papers on DI (reference back to Table 3.2) points out some of the most important findings after three decades of research: (1) North America dominates the geographical scope of most of DI studies (2) traditional entities of DI have countries as the main spatial scale (3) the predominant use of structured methods (4) factor analysis as the most employed structured technique; (5) visitors as the main target of DI studies (6) the main scope of interests covered by DI studies.

Additionally, another important conclusion demonstrated the maturity level of the DI field, when Pike (2002: 542) pointed out that "there is not yet an accepted theory to replace the multi-attribute models." For the first time, evidence was obtained concerning the use of a single paradigm in DI research grounded on a piecemeal-based processing theory. Gallarza *et al.* (2002) also carried out one of the most prominent contributions to DI research progress. Their conceptual framework of DI proposes a systematic categorization of theoretical perspectives based on an extensive analysis of 65 scientific papers. All this scientific activity is grouped and classified, according to an organized thinking, resulting in a model based on four main features of the DI construct which clearly exemplify a complex, multiple, relativistic, and dynamic nature. Altogether, the previous contributions seem to inform DI as a full-grown scientific field, leaving no doubt that the cognitive process of categorization began in the 2000s.

In addition to the previous discussion, during this stage it is clear that the DI construct emerged as a catch-all concept, a unifying concept of several theoretical categories that continuously appeared in the literature. Therefore, a number of classifications are influenced by image formation process (induced, organic and complex image), while others depend on destination image nature (cognitive, affective image) or information sources (primary and secondary image) or information processing theory (designative,

evaluative image). All these sub-concepts need to be co-ordinated by a holistic/umbrella concept (see Figure 3.2). They are seen as ‘theoretical extensions’ underpinned by DI as the main construct. As a result of this categorization process, this Paper advocates that a kind of taxonomy is emerging within DI theory, which reveals that this field of research may have reach a certain level of scientific maturity.

Figure 3.2 - Theoretical Categories of the DI Construct: an Example of Classification



Source: Own Elaboration.

3.4 Discussion

This Paper assumes that when exploring the state of a scientific field characterized by UC, such as DI, it can be helpful to think within an evolutionary perspective. Considering the application of the life-cycle model as an analytical framework provided in the previous sections, DI has been through three different stages of the research process. At the present time, three scenarios lie ahead: making the DI construct coherent (overriding challenges), agreeing or disagreeing over its definition (permanent issue), or calling for its demise (construct collapse). Taking this into account and considering the outcomes of the previous analysis, some issues have emerged as potentially needing additional consideration in future theoretical and methodological developments of DI. The purpose here is not to produce an extensive discussion or final conclusions, but to briefly introduce a few insights along which DI research can scientifically progress.

First, can researchers reach a broad agreement that DI has been through different stages of the research process and has reached a certain state of maturity ('tidying up with typologies'), as discussed in the previous section of this Paper? Nevertheless, if a mature field means that a well-defined set of problems have unambiguous and widely accepted solutions (Miller and Gray, 2002), it seems difficult to accept this assumption in the case of DI. As a UC, DI signifies everything and means nothing; it has different meanings for different people; it has continuously searched for the best method of measurement; and it has reached no consensus on how to operationalize it. It seems important that arguments and discussion about the evolutionary stage of DI continue, in order to make the construct more coherent so that the field becomes more self-reflexive and grows more consistently.

Second, in the same line of thought, what has really been investigated within the DI field? This Paper considers that the lack of theoretical framework is at the crux of the DI research process. An inconsistent use of terminology has been affecting the formulations of problems related to DI, and also the choice of the most suitable methods. Tasci *et al.* (2007) have provided an excellent conclusion about this issue. For them, this situation has led to (1) investigating DI with a different name, through the use of different constructs (2) investigating different constructs while utilizing similar measurement techniques to DI. Additional issues for future consideration should be towards a theoretical clarification of DI.

Third, isn't the DI construct a 'summative unit' (Dubin, 1969) characterized by meaning a great deal, much of it unspecified, or a 'catch-all construct' which has an inherently "vague sense that cannot and need not be more precise" (Bergmann, cited in Dubin, 1969:28)? This Paper assumes that the purpose of this construct is mainly pedagogical, along with DI, as a research field within tourism, and has been crystallized over the last decades. Thus, a fundamental principle should be a point at which instead of using DI construct in general, why do researchers not start to clearly define each one of the theoretical extensions that have been emerging (e.g. organic, induced or complex image; appraisive or descriptive image) as discussed at the third stage of the life-cycle (see Figure 3.1), and disseminate their application? This Paper considers that by using these categories the researcher will be more exact in delineating what is (or is not) included in the definition, in order to improve the measurement of the DI construct (Churchill, 1979). For instance, Lubbe (1998) focuses on 'primary image', analysing in particular the process of its construction. Additionally, Walmsley and Young (1998) examine 'evaluative images' as a consequence of using category-based processing and not attribute-based.

Fourth, this Paper claims that some of the fundamental questions of DI research are not yet answered after forty years of research. There is not yet a standardized scale instrument which would provide a valid, reliable measure of DI and permit comparisons across time, studies, and destinations (Stepchenkova and Mills, 2010: 591). In fact, one of the fundamental concerns in the DI field has not yet been properly answered. This seems to indicate that DI still lacks a mature fundamental basis, despite all the scientific production throughout these four decades. DI has not yet developed a strong foundation either theoretically or empirically. On one hand, ambiguous meanings have been used by different researchers at different periods in time leading to difficulties in construct validity. On the other hand, a substantial number of researchers after Echtner and Ritchie's (1991) review do not provide any DI definition as a frame of reference for their empirical studies (Tasci *et al.*, 2007). Additionally, Deslandes *et al.* (2006) support this evidence by arguing that although numerous destination image scales have been developed as a consequence of wide use of methodologies for DI measurement, little empirical research has been published that really evaluates the reliability and validity of these measures.

Fifth, is there one paradigm or multiparadigm in DI research? Does this field need a particular, detailed set of philosophical and methodological positions? Despite the multiple conceptions, interpretations, and methodological procedures that have been discussed, the multi-attribute approach grounded on information-processing theory (Echtner and Ritchie, 1991) seems to become the main, and apparently the only valid theory in DI research. However, the complex nature of DI demands new approaches more in line with those of consumer behaviour, based on a hedonic and experiential perspective as an enlarged view of information-processing theory (Holbrook and Hirschman, 1982). In this Paper's view, variation in particular philosophical commitments should be welcomed in the DI field, and new perspectives should be embraced. It is believed that the use of a single research paradigm may not provide a comprehensive understanding of the multiple DI nature.

Sixth, and last, in the future, will the field be able to integrate findings and theories from other disciplines into a recognizable specific DI as a domain of knowledge (Rodrigues *et al.*, 2011)? It seems that DI has been seen mostly as an 'applied arena', an 'eclectic forum', similar to strategy construct, considered a "theatre where people trained in various fields come to grapple with problems..." (Mercer, 1991: 827). Many theories and methods used in the field of DI have been borrowed from other disciplines (e.g. geography, environmental psychology). For example, the work of Stern and Krakover (1993) is the foundational basis for Baloglu and McCleary's (1999) model of DI formation recognized nowadays as the main theory within this line of inquiry.

3.5 Conclusion

This Paper has taken up the issue of conclusions concerning the state of DI as a scientific field after forty years of research. This academic field has progressed based on DI as an umbrella construct. This kind of constructs are considered to be vital, mainly because they keep the field relevant and in touch with a larger world. They are used for theoretical research generating a great deal of energy and excitement. However, consensus on how to operationalize them is rarely accomplished. This dialectic between conceptualization and operationalization, trying to achieve relevance and connection with the world, and, at the same time, rigorous standards of validity has been the fate of the DI construct. Several meta-analysis papers published over four decades of research

have confirmed it. As a consequence of this tension between relevance and rigor, a more evolutionary analysis is required. In this context, it is believed that the life-cycle model sets the perfect framework, in contrast with a more linear and cumulative examination. This can be considered an oversimplified but, nevertheless, helpful visualization that clearly reveals a cyclical process.

Taking this into account, the life-cycle of DI as an umbrella construct was the focus of this Paper. The scientific progress can be described through different stages. The meta-analysis findings over forty years of research seem to indicate that the DI construct has crossed different stages of scientific development. By the time research progresses to the ‘tidying up with typologies’ – the aging end of the curve – much work has already been completed. At this evolutionary stage, three different directions arise: (a) strengthen the construct coherence; (b) the construct is a permanent issue where researchers are trying to define and redefine it; or (c) the construct will inevitably collapse. Researchers have a tremendous responsibility and competence to determine the future direction of the DI construct and, consequently, the scientific field. At the moment, they have the capability to change or discover new paradigms, to keep DI as a healthy construct or to improve how to measure it. As Schwartz and Ibaraki (2001) advocate for the field of hydrogeology, the central idea of this Paper is not the premonition of the end of the DI field, but a need for change and refinement is required and also the opportunities that come along with it. Further research should concentrate on resolving these elusive issues not only through focusing on empirical work, but also enriching theory building.

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CHAPTER 4

**THE ALQUEVA RESERVOIR IN PORTUGAL: TOWARDS THE
DEVELOPMENT OF A NEW LAKE DESTINATION**

(PAPER 3)

THE ALQUEVA RESERVOIR IN PORTUGAL: TOWARDS THE DEVELOPMENT OF A NEW LAKE DESTINATION

ANA ISABEL RODRIGUES, ANTÓNIA CORREIA & METIN KOZAK³

Abstract

A number of well-known tourism destinations around the world are based on lakes as the main attraction. Although it is still difficult to determine the economic significance of lakes, lake tourism has been recognized as a relevant subfield of tourism studies. Based on a PhD investigation related to lake tourism, this Paper seeks to reveal and discuss the potential of the Alqueva reservoir as an emerging destination in the Alentejo region in the south of Portugal. This new resource has offered a naturally defined unit for tourism development since the reservoir started to fill up in 2002. Further research concerning destination image applied to the Alqueva Lake as a study area will provide valuable information for positioning and promoting it as a lake-destination in the future. Meanwhile, some of the challenges and contradictions in aligning the Alqueva as a resource with tourism development are highlighted in this Paper.

Keywords: Alqueva Lake, Lake Tourism, Lake Destination, Tourism Development, Natural Environment.

4.1 Introduction

³ This is an Author's Accepted Manuscript of a paper published as: Rodrigues, A., Correia, A. and Kozak, M. (2013) The Alqueva Reservoir In Portugal: Towards the Development of a New Lake Destination, *Polish Journal of Natural Sciences*, University of Warmia and Masury in Olsztyn, 28 (1), 131-143. The authors retained copyright in the *Polish Journal of Natural Sciences*. Also published in Polish Language by invitation:

Rodrigues, A.I.; Correia, A. and Kozak, M. (2014), *Zbiornik Alqueva – rozwój nowego ośrodka turystyki wodnej w Portugalii, Problemy turystyki i rekreacji wodnej* [Problems in tourism and water recreation], Uniwersytetu Warmińsko-Mazuskiego w Olsztynie, ISBN 978-83-72299-918-4, 131-142.

Published in March 2013.

The authors retained copyrights in the Appendix 10c.

Paper status:

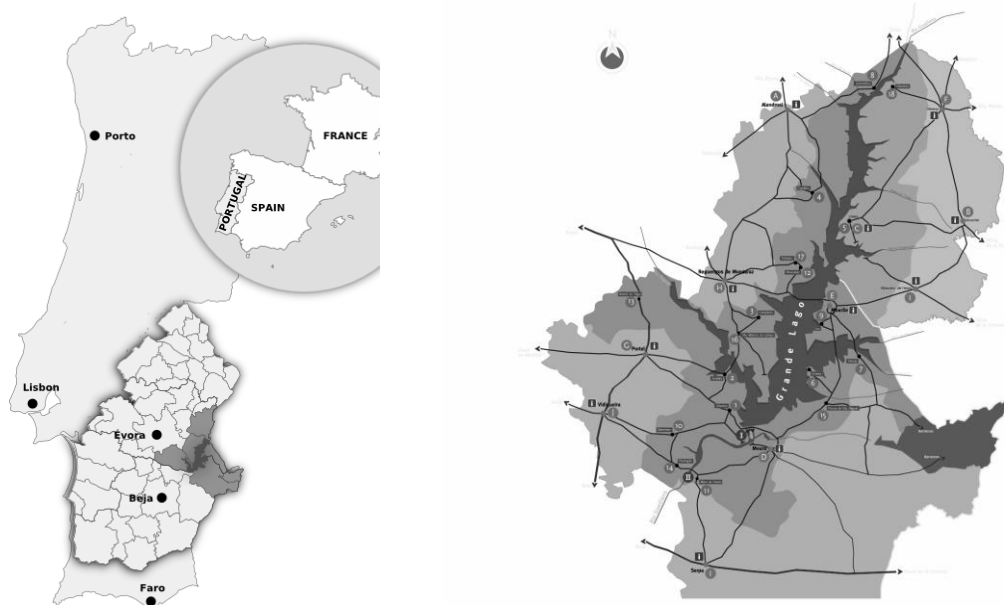
This paper was presented at the 5th *International Lake Tourism Conference*, University of Warmia and Masury, 3-6 July 2015, Olsztyn, Poland, under the title 'Exploring Destination Image Applied to Lakes: the case of the Alqueva Lake/Portugal', and submitted by invitation to be published at the *Polish Journal of Natural Sciences*. PL ISSN 1643-9953 and also at the Polish Book "Problemy turystyki i rekreacji wodnej" [Problems in tourism and water recreation], ISBN 978-83-72299-918-4.

Lakes offer a naturally defined core resource for tourism development. There are several examples of lake-based destinations around the world, where regional or local attractions are mainly based on a lake resource. In fact, the potential of Europe in terms of lake destinations is well-recognized, which clearly justifies the adoption of a 'lake tourism' concept under the wider concept of 'water based tourism' (Ryhänen, 2001). Nowadays, lake tourism is considered not only as an important type of tourism of economic value for certain destinations, but also academically as a subfield of tourism studies (Hall and Härkönen, 2006). Two different types of lakes should be distinguished: natural and artificial. The case of Alqueva Lake, a new artificial reservoir in Portugal since 2002, will be examined (Figure 4.1). This reservoir fulfils several functions as storage, water supply, hydroelectric and irrigation, considering the fact that this dam is located in Alentejo, the driest and hottest region of Portugal. The construction of the dam was crucial, since severe climate and the lack of infrastructures have blocked this region's development for decades, isolating it from national and European economies. Presently, the Alqueva Lake is the largest reservoir in Europe (surface area 250km²; maximum depth 99m; shoreline 1200 Km; length 82 km). It is important to highlight that, like natural lakes, the importance of reservoirs for social and economic development has been already demonstrated (Katarzyna *et al.*, 2010).

According to Hall and Härkönen (2006), the idea of lake tourism is underpinned by a certain geographical entity which has arisen because of its particular environmental characteristics. In the case of Alqueva, the establishment of a new reservoir in 2002 has resulted in a lake resource considering the fact that it comprises several recent attractions contained in the nature, culture and community of the lake, generating new possibilities for tourism development. One of the basic elements of a tourism destination is well-defined spatial boundaries. Presently, a territorial delimitation has been conducted, giving rise to a geographical area of seven municipal areas around the lake, which includes sixteen villages on the lakeshore (named 'lakeside villages') spread over seven municipal areas⁴ (Pe~Aqua, 2003).

⁴ The municipal areas located in the Portuguese part of the lake are the following: Alandroal, Moura, Mourão, Portel, Reguengos de Monsaraz, Serpa and Vidigueira. The 'lakeside villages' are: Capelins, Juromenha, Póvoa de S.Miguel, Estrela, Luz, Granja, Alqueva, Amieira, Monte do Trigo, S. Marcos do Campo, Campinho, Monsaraz, Telheiro, Mina da Orada, Marmelar and Pedrógão, according to Gestalqueva <http://www.gestalqueva.pt/programaaqua1.aspx>. However, the legislation of the Destination Management Organization of Alqueva (TGLA) in 2008 determined only six municipal areas, excluding Vidigueira and Serpa, and including Barrancos. For more information about the legislation visit http://www.turismoalqueva.pt/media/attachments/24/2/Estatutos_do_Polo_Alqueva.pdf

Figure 4.1 - Location of the Alqueva Lake in Portugal



Source: DarkSky Alqueva Website, available at <http://www.darkskyalqueva.com> and Gestalqueva website, available at <http://www.gestalqueva.pt/> (accessed on August 2012).

The tourist and recreational potential of Alqueva is rooted in the Alentejo region where it is located. Broadly, the Alentejo is considered to be an exceptional part of an unspoilt Portugal, full of character, barely touched by tourism and steeped in history. The Alentejo region is marked by nature and heritage, a vast landscape that varies considerably, from the open rolling plains of the south to the granite hills that border Spain in the north-east. With the construction of the Alqueva dam a completely new landscape has appeared since 2002. Where there used to be plains, roads and even villages there is now a considerable body of water known as the ‘Great Lake’, which crosses two countries, Portugal and Spain ⁵. New beauty came into being, mostly non-urbanized, characterized by a genuine landscape.

However, to be competitive, destinations must be managed from a strategic point a view. Since destination image is considered to be one of the most important marketing tools for a successful destination, an image study assumes a crucial step, even more so in the case of emerging destinations, such as the Alqueva Lake which is at the very

⁵ The Alqueva Reservoir resulted from damming the Guadiana River located on the Portuguese-Spanish border separating Extremadura and Andalucia (Spain) from the Alentejo and the Algarve (Portugal). The Guadiana’s course covers a distance of 829 km, and it is the fourth-longest in the Iberian Peninsula, with a hydrological basin extending into an area of approximately 68,000 km² (see Maia, 2000). The Alqueva Reservoir covers the two countries. This paper focuses on the Portuguese part of the Lake.

beginning of tourism development. Therefore, framed by a PhD research with the purpose of identifying the main image variables of Alqueva as an emergent lake destination in order to develop in the future a reliable and valid scale of image management for this type of destinations, two key themes underpins this Paper. First, knowledge of the process through which the Alqueva reservoir has emerged, highlighting some natural, cultural and tourism aspects; this will contribute to the PhD research since it provides a richer understanding of how the tourists perceived the Alqueva Lake as an emerging destination. Second, it is believed that the value of examining these elements provides important insights to engage in a discussion of the challenges, contradictions, and directions towards a tourism development as a lake-destination area.

4.2 The Dam Construction: Background

The Alqueva dam is located in the Alentejo, a south-central region of Portugal separated from the rest of the country by the Tagus River. The Alentejo is rural and is the most depopulated region in the country. The Alqueva project has a long and well-established history: the Portuguese government decided to invest in water storage facilities to expand irrigation and supply water to the Alentejo region as a result of severe problems of physical and human desertification. This region has one of the lowest rates of rainfall over the whole Portuguese territory, generally varying between 500 and 600 litres per square meter *per annum*. At the same time, the inter-annual distribution of rainfall in the region is extremely irregular, varying between 250 litres/m² in dry years and 900 litres/m² in rainy years (EDIA, 2000). As a result of an extremely irregular water flow, the only way to guarantee the supply of water from surface resources was by building large dams.

The first reference to creating a water reserve in the Guadiana River dates back to the beginning of the 20th century. However, the Multipurpose Alqueva Project (MAP) was only implemented in 1957, as a part of the Alentejo Irrigation Plan. At that time the main goal was economic development based on the agricultural sector. The Project was only approved in 1975, with the Portuguese-Spanish Agreement in 1968 on international rivers. After advances and retreats during the 1970s and the 1980s, a *Global Assessment Study* of the project promoted by the European Commission

Regional Development Office emerged as the central issue in this process. Portugal joined the European Union in 1986 together with Spain and since then, the financial support of the project by the European Commission (EC) was a key issue for the Portuguese government. As a result of this *Global Assessment Study*, the European Commission agreed to finance MAP only if became evident that it would play a key role for regional development. Finally, in 1995 the Portuguese government decided to proceed with the MAP with or without financial support from the European Union, as a means of setting up a strategic water reserve in this region. Alqueva was considered as a key project of the Guadiana River Basin Plan approved in 2001 (Sanches and Pedro, 2006). This watershed is regulated on a national basis under a bi-state agreement between Portugal and Spain. On February 8th in 2002 the dam gates were closed and the Alqueva reservoir started to fill up.

In order to manage the whole MAP, a public limited company named EDIA (Alqueva Development and Infrastructures Company) was founded in 1995 by the Portuguese Government with the objective of conceptualizing, building and exploiting the MAP. Also aware of the importance of this project for the social and economic development of the region, EDIA included a business perspective in its strategy, aiming to promote the development of 20 Alentejo municipalities, which are directly influenced by the MAP (EDIA). Among the various components of this project and as a result of the lake's size, sustainable tourism growth soon became a significant goal.

4.3 Natural Environment

The territory adjacent to the Alqueva Lake and its nearest surroundings (mainly located in the southeast) has a Protected Site classified by the European Union, which is part of the Natura 2000 network⁶. This Site is a Special Protection Area (SPA) named

⁶ The Natura 2000 Network is a European ecological network which aims to preserve biodiversity by conserving natural habitats, wild flora and fauna in the European Union territory. The Natura 2000 Network is composed of sites classified as Special Protected Areas (SPA), by the Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, including the migratory species and the habitats where they occur. Sites of Community Importance (SCI) classified according to the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and wild fauna and flora which are considered threatened in the EU. For more information visit the website http://ec.europa.eu/environment/nature/natura2000/index_en.htm and also <http://www.icnf.pt/ICNPportal/vEN2007/O+ICNB/Rede+Natura+2000/>

Moura/Mourão/Barrancos, which has 84,909 ha characterized by a heterogeneous landscape that varies between open treeless plains for cereal cultivation and *montados*. A *montado* is the agro-silvo-pastoral system specific to the Alentejo region, comprising an open formation of cork and holm oaks (*Quercus suber* and *Quercus rotundifolia*) in varying densities, combined with a rotation of crops/fallow/pastures (Pinto-Correia and Mascarenhas, 1999). Despite the fact that it has been declining in recent decades, the *Montado* is one of the best examples of Mediterranean forest. The type of landscape generated by this agro-silvo-pastoral system is particularly attractive for relaxation and recreation (Surová and Pinto-Correia 2008:313). Therefore, the typical landscape of the Alqueva Lake should be considered in the future as one of the most important resources for tourism development. Considering biodiversity, the Mourão/Moura/Barrancos SPA is also very important for the conservation of steppe birds as well as for many species of birds of prey, such as the Black Vulture (*Aegypius monachus*), the Golden Eagle (*Aquila chrysaetus*), the Spanish Imperial Eagle (*Aquila adalberti*) and Bonelli's Eagle (*Aquila fasciata*). This is the most important overwintering area of the Crane (*Grus grus*) in Portugal. It is also one of the priority areas for the conservation of the Iberian lynx (*Lynx pardinus*). As for steppe birds, this SPA is an important overwintering area for the Great Bustard (*Otis tarda*) (LPN, 2012).

In addition to this SPA, there are two more Sites classified by the Natura 2000 Network as Sites of Community Importance (SCI) in the terrains adjacent to the lake: a) Moura/Barrancos (43,309 ha) with an appreciable physiographic and geological diversity, allowing the occurrence of various plant communities; it also includes one of the country's most important havens for bats; b) Guadiana/Juromenha (2,501 ha), very important for endemic flora; the location of the only two populations of *narcissus humilis* in Portugal (ICNF 2012).

Additionally, it should be highlighted that the promotion of an environmentally sustained development of the Alentejo region was always a concern of the Alqueva project, since it was only co-financed by the EC if strong mitigation and compensation measures were adopted by the EDIA. As a consequence, in 1997 an Environmental Management Programme for the Alqueva project was developed, which is at present the key instrument for environmental intervention (EDIA, 1997). As a consequence of a large-scale transformation in this area, the management for multiple uses of the Alqueva reservoir has determined certain obligations for EDIA, who have recognized since the

beginning of this process the environmental responsibility implicit in its action. In order to compensate for the loss of habitats due to the submersion of a very large area, EDIA has acquired the Noudar Nature Park (approximately 1,000 ha), which is representative of a genuine natural environment of this region.

This park, located in the southeast area of the Lake, is included in the Natura 2000 network, forming an ecological set with Spanish protected areas. Noudar Nature Park is managed according to the maintenance of biologically diverse silvo-pastoral systems adapted to the necessities of conservation, which will promote the sustainable development of this area, making agriculture, forestry and tourism compatible (PNN). The maximization of the positive effects on biodiversity is at the crux of the management model of this park, which allowed finding, for example, new plant species such as *Geranium Malviflorum* (new in Portugal) or *Ceratocarpus Heterocarpa* (a very rare species). The park is also well prepared in terms of tourism, including comfortable accommodation for families and a portfolio of outdoor activities (pedestrian and cycle paths, routes for electric cars, flora and fauna observation).

Another important attraction which has profoundly increased the value of the natural environment at Alqueva Lake is related with its sky. Alqueva was the first site in the world to receive the “Starlight Tourism Destination” certification, awarded to visitable places characterized by excellent quality for the contemplation of starry skies and the practice of tourist activities based on this resource. The Alqueva Dark Sky Reserve is an area of 3000 km² and is spread over the lakeside villages. The ideal conditions for an excellent observation of the dark sky are ensured by this site with an average of 286 clear nights a year, low level latitude (38degN) and minimal light pollution. An Alqueva Dark Sky Route has already been conceived combining accommodation, restaurants and activities. One of the most visible components of this project is to develop in the future a set of actions for the reduction of light pollution, which will further accentuate the quality of the Alqueva sky (Dark Sky Alqueva, 2012).

4.4 Cultural Factors

As has already been observed, the sudden creation of this enormous mass of water massively transformed the landscape. Sixteen villages are now located on the lakeshore, and underwent a profound transformation. Thus, the cultural and historic attraction of

the lake is interwoven with this new territory that defines the Alqueva Lake as a lake-destination area. Despite the fact that these villages are not well prepared for tourism, they preserve and value the history and living experiences of the local people over the centuries. As Cooper (2003: 29) states “*local community is a key consideration on the cultural appraisal of lakes as a recreation and tourism resources.*” Regardless of their lack of infrastructures, their potential for tourism was already identified and recognized (Pe~Aqua, 2012). In general they attract the visitor’s attention with similarly-shaped white houses, framed in a deep blue, grey or yellow colour. Thus, the peaceful atmosphere surrounded by a rural landscape is worthy of interest.

Nevertheless, it is reasonable to remark upon some significant cultural attractions located alongside the lake. The medieval town of Monsaraz is one of the oldest Portuguese settlements of southern Portugal, occupied since pre-history, where visitors can walk and feel the atmosphere with a view over the lake. Also, there is a considerable number of castles spread over the surrounding area from the 13th and 14th centuries (Castles of Moura, Mourão, Terena, Alandroal, Portel, Noudar, Monsaraz)⁷. Additionally, northwest of the lake it is important to highlight the Juromenha Fortress (Alandroal) where the original fort was built in 1167 by the founder of Portugal in order to protect the area from the Moors and rebuilt in the 14th century. Despite its historical and cultural importance the fortress remains in bad condition requiring a programme of conservation.

Along with this heritage, a particular reference should be made to the remarkable process involved with the settlement of a new village (“Luz Village”) totally built when the original village was flooded by the Alqueva dam. The procedure of relocation of the village was unique and has been pointed to as an example of how ethical values can be conciliated with the necessity of constructing a dam. In order to share this legacy, the Museum of Luz was founded in 2003 with the purpose of promoting and safeguarding the tangible and intangible heritage of Alqueva in the context of the Alentejo region, becoming one of the village’s ‘memory buildings’. From a small window in one of the museum’s rooms, it is possible to identify exactly where the old Luz village once stood. A final consideration goes to the city of Évora which, despite the distance from the Lake

(about 60 km from Monsaraz, Alandroal or Amieira), can be easily reached by car. Évora has been classified by United Nations Educational, Scientific and Cultural Organization (UNESCO) as World Heritage since 1986, preserving the remains of over a thousand years of history under Celtic, Roman, Visigoth and Arabian influences. This city is one the main touristic attractions in the Alentejo region.

4.5 Tourism Infrastructures

As previously observed, the Alqueva Lake is a new resource for tourism in the Alentejo region. The evolution of tourism is intertwined with the evolvement of destinations, which go through a cycle similar to a life-cycle of a product. In general, destinations go through different stages of development due to their dynamic nature: exploration, involvement, development, consolidation, stagnation (Butler, 1980). Framed by this well-known analytical model applied to the Alqueva Lake, the following considerations might emerge: a) the delimitation of the physical boundaries of Alqueva as a lake-destination area is very recent, and sometimes is still misleading; b) the type and scale of tourism for Alqueva in particular and the Alentejo in general is being discussed within a recent tourism regional plan; c) the relatively recent foundation of a Destination Management Organization for Alentejo and Alqueva named as ‘Terras do Grande Lago Alqueva’ (TGLA)⁸, within the intervention of the public sector in tourism; d) the absence of a clear and well defined image and positioning in the market; e) the implementation of initiatives to promote the destination, and provide the tourism product development such as the Dark Sky certification. Arguably, it could be concluded that Alqueva as a lake-destination area is at the very beginning of the life-cycle, apparently at the ‘involvement stage’.

Therefore, the concept of a life cycle helps to understand how situation-specific life-cycle conditions influence the level of touristic infrastructure development in a particular destination. In the case of the Alqueva Lake and in terms of its supply there is some accommodation, although a qualification process should be implemented. TGLA

⁸ ‘Turismo Terras do Grande Lago’ (TGLA) is the Local Management Organization responsible for the management and marketing of Alqueva as a lake-destination area, founded in 2008, according to the TGLA ordinance 1151/2008 October 13th. However, it must be noted that the Portuguese Government has announced a significant change in the structure of the public administration of tourism, which probably will lead to the integration of TGLA in the current Regional Management Organization promoting the Alentejo as a destination (ERT Alentejo). Presently, (August 2012) the final decision has not yet been announced which, in fact, contributes to some uncertainty related to Alqueva’s management as a lake-destination in the future.

is in the process of developing and collating information, monitoring the state of the tourism supply on the Alqueva Lake. A preliminary version of the accommodation inventory was undertaken by the TGLA and identified 31 accommodation establishments, mostly classified as rural tourism within the categories of rural hotels and farmhouses, according to the Portuguese legislation. The houses are located in a rural and calm environment, rustic or in old manor houses, in direct contact with nature and local traditions. Some of them provide opportunities for tourists to take advantage of the immense landscape extending through the plains with various sport activities such as horse riding, cycling, bird watching, canoeing, among others. Most of the accommodation already existed before the rise of this large body of water; however new small projects were then installed after the Alqueva reservoir due to its significant potential. Meanwhile, new major tourism projects are projected on the lakeshore, in accordance with the Spatial Planning of Alqueva and Pedrogão Reservoirs (POAAP). This territorial planning instrument clearly defines the guidelines for the land-use in the Alqueva area, particularly for tourism.

As destinations are an amalgam of components and experiences, water-based activities are of paramount importance for lake-destinations. On the Alqueva Lake, this type of activities is primarily based on the first major nautical project located in ‘Amieira village’, one of the sixteen ‘lakeside villages’ already mentioned in this Paper. The programmes on the Lake consist of scheduled passenger cruises (SPC) and houseboat renting (HBR). In terms of SPC, this service is provided by three cruise boats, stopping at various points of interest located in some of the ‘lakeside villages’, of which three have the capacity for 25 passengers and one for 120 passengers; the HBR consists of a different concept of accommodation offering the ultimate freedom for tourists who love the water, with a plot composed of seven houseboats with a capacity that ranges from 4 to 12 passengers (Amieira Marina, 2012). Apart from this service, there are five more nautical companies according to the TGLA inventory, mainly small and family projects, focused on sailing and motorboat cruises, with or without crew. It is also noteworthy to mention some infrastructure requirements vital for the development of water-based activities on lakes. Presently, Alqueva Lake has only one marina installed near Amieira village with all the basics, and some small wharfs spread out among the lakeside villages. It is expected that in the future more appropriate infrastructures will come into

existence in response to the tourism and recreational potential of the Lake, following the rules established by the POAAP implemented since 2002.

4.6 Discussion and Conclusion

So far the previous sections have provided a description of the Alqueva Lake project as well as its potential for tourism development. There is no doubt that Alqueva is at the very beginning of the life-cycle as a lake-destination area. The purpose of this section is to introduce and briefly discuss, based on a literature review of lake tourism, important issues concerning the Alqueva Lake as a future lake-destination area.

Firstly, an integrated lake management approach should be implemented since lakes are complex destination systems (Cooper, 2006). Coordination is essential in all types of destinations, but even more on lakes as open systems. The vulnerability of lakes since they represent fragile eco-systems, the multiple uses of lakes, the level of complexity of coordinating all the different stakeholders involved in the destination, demands a holistic view of the lake. In the case of Alqueva, the large number of organizations implicated in the management of the lake leads to a high level of responsibility fragmentation⁹. Given the difficulty of managing the Alqueva Lake as a single entity due to the fact that this reservoir didn't exist until 2002 and now a new reality has arisen, crossing different territorial boundaries; in the near future it will be useful to implement a specific authority consisting of representatives from the different public sector agents involved in the management of the lake. Additionally, a partnership task force could emerge with public, private sector and community that could provide strategic advice and recommendations in the creation, monitoring and review of policies for developing and managing the Alqueva Lake and any issues related to its future.

Secondly, and in line with the earlier discussion, it will be of a great value if an integrated and specific management plan for Alqueva Lake could be implemented by

⁹ The management of the Alqueva Lake involves multiple organizations, each one with a more direct or indirect impact on its development in various fields. These are some examples of the large number of entities involved: IPA (Portuguese Environment Agency) responsible for implementation of the national policy of water resources; EDIA responsible for the management of the Alqueva Dam, already presented in this paper; CCDRA (Coordination Commission of Regional Development of Alentejo) implements the government policy for planning, environment and development in Alentejo; ATTGLA (Association of the Alqueva Evolving Municipal Areas in Portugal and Spain); TGLA (Alqueva Lake Great Lands) responsible for management and marketing Alqueva as a tourism destination; ERT Alentejo (Regional Tourism Organization for Alentejo), responsible for management and marketing Alentejo as a tourism destination.

the government of Portugal. This important planning instrument would be considered as the main driving force for the destination and, simultaneously could aggregate all the multiple stakeholders involved in the management process. According to Cooper (2006) the management of the Lake District in the UK and the Great Lakes in North America are two good examples of a holistic management. The former, because there is a particular Development Plan for the Lake District under the supervision of a specific Authority (Lake District National Park Authority); the latter for the reason that each lake of the Great Lakes (five in total) has its own management plan but are still linked, and also because the management programme is subject to an international management agreement between USA and Canada. The same situation happens on the Alqueva Lake, since this is a lake that crosses two different countries (Portugal and Spain).

Thirdly, tourism on lakes takes place in the surrounding area of the lake and not exclusively on the lake itself (Hall and Härkönen, 2006). Naturally, linked to the definition of lake tourism is the idea that there is a geographical entity with particular environment characteristics. This feature becomes, probably, more evident on natural lakes which always existed in a particular place than on lakes artificially created. Given the background of Alqueva as a new lake that has existed only since 2002, one of the central discussions is the need for a clear delimitation of the territorial boundaries of Alqueva as a lake-destination area. This has been an undefined process considering the fact that there are two different standpoints: (i) the first was established in 2003 (Pe~Aqua) by EDIA based on the concept of sixteen 'lakeside villages' within seven municipalities adjacent to the lake (ii) the second was adopted by TGLA from 2008 more focused on the municipal areas (six), which are not exactly the same as the former. Therefore, it is important and urgent to define a single position towards a geographical delimitation of Alqueva as a lake-destination, which must be assumed by the whole tourism industry. The future marketing planning for this destination is totally dependent on this particular, but fundamental aspect.

Lastly, marketing, product development and promotion are of paramount importance for the development of destinations. Also in lake-destination areas successful marketing is linked to a strong destination image (Erkkilä, 2006). Therefore, it is important to continuously understand its formation process (Baloglu and McCleary, 1999; Gartner, 1993), within a geographical expansion of image studies applied to non-traditional entities (such as lake destinations), over almost forty years of an evolutionary research

(Rodrigues *et al.*, 2012). Since the Alqueva Lake is at the very beginning as a lake-destination, consistent work on water-image formation should be implemented framed by the experience economy as the 21st century's paradigm. Moreover, waterscapes are considered to be a significant challenge for tourism marketing, because of their pleasantness as an environment and attractiveness as a landscape (Tuohino and Pitkänen, 2004). An image study will then provide valuable information for positioning, differentiation, and promoting Alqueva as a lake-destination area in the future within a national and a regional marketing strategy.

In terms of product development, the idea of the gateway approach first proposed by Gunn (1979) which Gartner (2006) explored applied to lake areas, could be implemented in the Alqueva Lake in terms of product development, promotion and distribution. Gateways are seen as consumption centres, which offer products from different service providers in a central location. However, gateways are not only applied in terms of location in a physical space, but nowadays they can be understood in terms of new technologies in tourism. This idea of gateways, in the case of lake destinations, is of great importance due to the complex destination system as mention before. Presently, the concept of gateways applied to lakes involves the existence of a website as a promotion and distribution tool, providing information from the multiple services providers (e.g. accommodation, activities, events, restaurants) on the lake in an integrated and coordinated model. Alqueva Lake should in the future develop a website, since from a customer point of view destinations are viewed like any other product¹⁰. In a more developed stage with a considerable level of supply in nautical activities, the adoption of the 'Nautical Resort' concept developed in Spain and France for sea water could also be explored on lakes, specifically on the Alqueva Lake. Undoubtedly, this model of 'product engineering' development should be rooted in a strong destination image of the lake.

In conclusion, the aim of this Paper was to draw attention to a new reservoir located in a rural region of Portugal. The potential of the Alqueva Lake and the adjacent areas for tourism is mainly due to the specific natural environment, typical landscape and cultural resources of an essentially non-urbanized territory. As a lake-destination, Alqueva is at the very beginning of the life-cycle, which leads to the need for a successful marketing

¹⁰ There are good examples of websites for lake-destinations areas. The website of Lake District in Italy is a good example of product development, promotion and distribution tool of a destination-lake area. For more information visit the <http://www.distrettoalaghi.it>.

approach and action. Further research will contribute to determine the main attributes that should promote the Alqueva Lake for tourism purposes in the near future.

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CHAPTER 5

**LAKE-DESTINATION IMAGE ATTRIBUTES: CONTENT ANALYSIS OF
TEXT AND PICTURES**

(PAPER 4)

LAKE-DESTINATION IMAGE ATTRIBUTES: CONTENT ANALYSIS OF TEXT AND PICTURES

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Abstract

Lake tourism is a growing academic sub-field of tourism studies with an emerging body of literature. However, little research attention has been given to lake-destinations' projected or perceived tourism images. Specifically, there has been a scarcity of literature investigating the variables involved in the formation of a lake-destination image. Therefore, this study aims to explore the main attributes that might potentially influence this type of destination, and simultaneously, contribute to conceptualizing and defining lake tourism as recent research area. An explorative study was then conducted in order to generate a set of image variables through the use of textual and photographic data. The results will contribute to characterize potential lake-destinations and to develop a final list of variables specifically related to this type of destination.

Keywords: Destination Image, Lake Tourism, Lake-Destination Areas , Pictorial Image, Content-Analysis.

¹¹ This is an Author's Accepted Manuscript of a paper published as: Rodrigues, A., Correia, A., Kozak, M., and Tuohino, A. (2015). Lake-Destination Image Attributes: Content Analysis of Text and Pictures. In A. Correia, J. Gnoth, M. Kozak, A. Fyall (Eds.), *Advances in Marketing Places and Spaces*, Book series: *Advances in Culture, Tourism and Hospitality Research*, Emerald Group Publishing Limited, Vol. 10, 293-314.

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Published in June 2015.

Paper status:

This article was presented at the 5th *Advances in Tourism Marketing Conference*, 2-4 October 2013, Vilamoura, Portugal, under the title 'Lake-Destination Image Attributes: Website Content Analysis of Text and Pictures', available at http://igni.urfu.ru/uploads/media/5_ATMC_Conference_Proceedings.pdf and submitted by invitation to be published in *Advances in Marketing Places and Spaces*, Book series: *Advances in Culture, Tourism and Hospitality Research* and submitted by invitation to be published in *Advances in Culture, Tourism and Hospitality Research*. Already published.

5.1 Introduction

Due to the multifaceted nature of tourism, new typologies have come into existence and many different forms of tourism have co-existed over the last decade. Particularly related to water as a tourism resource, several terms have been addressed such as marine tourism, river/canal, coastal, marina-based, and more recently lake tourism (Hall and Härkönen, 2006). This relatively unexplored research theme of tourism studies has an emerging body of literature.

Lakes are open bonds of water (natural or man-made) which can either be considered as a tourism resource, which adds value to the whole destination experience or arise as the core of the destination's attractiveness. In fact, tourism development not only on the lake itself, but in the surrounding area might constitute a valuable resource for some countries if properly developed. It is believed that due to the complexity of lacustrine tourist systems the destination image (DI), owing to its simplicity, dynamism, versatility, and capacity to integrate several factors, might represent a basis for the management of this type of destination (Rolo-Vela, 2009). Moreover, image is considered a key construct in destination positioning (Pike and Ryan, 2004), and destinations should be oriented to target positioning in their own competitiveness set (Kozak and Rimmington, 1999).

As a result, an understanding of the mental images associated with lake-environments as a tourism destination is of utmost importance. Moreover, since lake landscapes are associated with water, understanding the perceptions that tourists hold about "waterscapes" is a starting point for marketing lake-destination areas (LDA) (Tuohino and Pitkänen, 2004). In this sense, LDA arise as an interesting topic for destination image studies after forty years of evolutionary research (Rodrigues *et al.*, 2012) within this field.

Despite the growing number of studies related to destination image (DI) as the literature review demonstrated, very little is known about destination marketing and image applied to the lake tourism context (Tuohino, 2006). A large number of studies assess DI in general, but few have attempted to measure it for any specific context. However, framed by new trends in DI research as a result of an intensive competitive environment (Stepchenkova and Mills, 2010), non-traditional entities have started to be the focus of recent studies, such as regions (Silvestre and Correia, 2005), resorts (Alcañiz *et al.*,

2009), or types of tourism (Silva *et al.*, 2013). Moreover, research investigating image attributes specifically related to LDA is limited. The present study focuses on this particular type of destination.

The starting point to depict image scales in specific contexts grounds on construct validation theory (Gilbert and Churchill, 1979). Considering this, the main aim of this research is to generate an item pool throughout content analysis, able to depict the more accurate items to measure lake destination image. For this purpose, a review of the literature on DI and lake tourism (LT) is undertaken, in order to generate image attributes, and to investigate the nature of the LT concept. Based on the multidimensionality of the DI, functional and psychological image attributes more related to LDA are proposed. Additionally, the main characteristics and dimensions of LT concept are identified. Finally, the strategically implications of the results are discussed.

5.2 Literature Review

5.2.1 Destination Image Theory

Particularly related to the DI construct, after Echtner and Ritchie's (1991) literature review, researchers still recognized a lack of a theoretical framework (Gallarza *et al.*, 2002; Tasci *et al.*, 2007). Therefore, a complex, multiple, relativistic, and dynamic nature clearly identifies the DI construct (Gallarza *et al.*, 2002). An examination of the main DI attributes is required in order to investigate this complex construct.

A meta-analysis paper concerning DI as a field of research since the emergence of the construct in the 1970s was examined. Having as a base line the list of the most common DI attributes proposed by Gallarza *et al.* (2002), an extension of the period was considered (2000 to 2012). As a result, 24 studies were analysed that measure image based on the following attributes: 'various activities', 'landscape surroundings', 'nature', 'culture attractions', 'nightlife and entertainment', 'shopping facilities', 'information available', 'sport facilities', 'transportation', 'accommodation', 'gastronomy', 'price, value and cost', 'climate', 'relaxation vs massification', 'accessibility', 'safety', 'social interaction', 'resident's receptiveness', 'originality', and 'service quality' (see for example, Baloglu and Mangaloglu, 2001; Correia and Pimpão,

2008; Jeong and Holland, 2012; Pike and Ryan, 2004; Shani *et al.*, 2010, among others).

The methodology of reviewing and selecting the DI attributes was the same as Gallarza *et al.*'s procedure (2002). The following considerations were deducted from the literature review and were very similar to Rolo-Vela (2009):

1. Destinations under study were primary large-scale entities, mainly countries. However, new entities such as cities, theme parks, types of tourism are emerging in the literature;
2. There is a lack of consensus about which attributes should be selected and included in DI scale;
3. Several authors continuously mention the lack of a standardized scale instrument for DI construct (Echtner and Ritchie, 1991, 1993; Tasci *et al.*, 2007). Others strongly advocate a standardized scale (Deslandes *et al.*, 2006). Nevertheless, as Rolo-Vela (2009) concluded three scales are considered to be reliable and valid: those found in Echtner and Ritchie (1993), Baloglu and McCleary (1999), and Beerli and Martín (2004);
4. It will probably be difficult to achieve a standardized scale that can adequately measure DI as a concept. As argue by Rodrigues *et al.* (2012), since DI is an 'umbrella construct' consensus on how to operationalize this type of constructs is rarely achieved. In this sense, shouldn't future DI scales consider the attribute differences not only based on geographical scope, but also on the type of entity/object (destination, type of tourism, event or theme park)? This Paper advocates that DI scales should progressively include attributes that really match the object under study.

In this context, the scales analysed (including the reliable and valid scales mentioned above) do not correspond well to the object under study, specifically LDA, as the literature review demonstrated. Thus, LDA have been totally absent from DI research.

A milestone in DI construct was Echtner and Ritchie's work (1991, 1993) at the beginning of 1990s, proposing a new scale to measure the multidimensional nature of this construct, shifting from a unidimensional to a multidimensional perspective. These authors postulated the existence of a continuum from the functional to the

psychological, on which the different attributes were located. Analysis of DI then moves from a traditional attribute-based measurement to a broader approach, capable of capturing the *gestalt* nature.

Consequently, alternative methods of DI measurement based on qualitative techniques were recognized as useful because it captures the holistic impressions associated with a destination. By the mid-1990s, researchers started to be sceptical about the validity of attribute lists, demonstrating the benefits of using a qualitative approach (Reilly, 1990). The combination of multiple methodological practices and empirical materials in a single DI study, foreshadowed by Echtner and Ritchie (1991), was definitely legitimized. Consequently, an emerging research strand shows the use of mixed-methods, both qualitative and quantitative (e.g. Baloglu and McCleary, 1999; MacKay and Fesenmaier, 1997; Pike and Ryan, 2004). As a result, various qualitative techniques have been used for DI measurement, mostly covering techniques such as free elicitation, focus group, open-ended questions, in-depth interviews, and content-analysis (Gallarza *et al.*, 2002).

In line with this new approach, pictorial materials were used progressively in qualitative studies. The 'pictorial turn' was underpinned by MacInnis and Price's (1987) work and the relationship between imagery processing and consumer behavior was examined. Their primary purpose was to demonstrate that both imagery and discursive information were used in evaluating a product. Based on this assumption, visual stimuli such as travel photography have been used as a methodological approach (e.g. Greaves and Skinner, 2010; Mackay and Fesenmaier, 1997). In fact, the employment of photographs has been widely recognized as a valuable analysis method, particularly in DI studies (Jacobsen, 2007).

This study focuses on an initial perception of the cognitive image (Martín and Rodríguez del Bosque, 2008; Pike and Ryan, 2004), particularly the functional and psychological attributes of LDA (Alcañiz *et al.*, 2009; Echtner and Ritchie, 1991, 1993). Echtner and Ritchie (1991, 1993) argued that the attribute-based and holistic components of a destination possess directly observable or measured perceptions (functional attributes) and abstract or intangible characteristics (psychological attributes).

In addition to the aforementioned efforts to understand the nature of destination image, this study adopts Beerli and Martín's (2004: 659) rationale for whom "the selection of the attributes used in designing a scale will depend largely on the attractions of each destination, on its positioning, and on the objectives of the assessment of perceived image, which will also determine whether specific or more general attributes are chosen." In the 2000s, DI studies started to be applied to particular types of destinations, (Greaves and Skinner, 2010; Rolo-Vela, 2009; Silva *et al.*, 2012). This is in line with this new trend in DI research found in Stepchenkova and Mills' work (2010).

5.2.2 Lake Tourism Theory

Water is one of the most powerful symbolic resources mobilized by the human imagination and plays a central symbolic role in many forms of spiritual and social practices. Early explorers already found European lake destinations and in the period of Romanticism, the touristic value of lakes was publicized by visual artists and poets who were inspired by lake environments (Aitchison *et al.*, 2000). As a consequence, there arose a demand for tourist services in lake destinations, which together with rapidly developing travel in the modern period led to the large-scale commercial exploitation of lake environments. (see e.g. Ryhänen, 2001a). Against this historical background, it may be quite difficult to understand, that research literature on lake destinations as a touristic phenomenon is still relatively tricky to find (Tuohino and Dávid, 2012).

LT as a concept is multifactorial. LT is not only tourism on the lake itself, but also in the surrounding areas of the lakes (Tuohino, 2008). Lake tourism may be valued and understood in the same way as alpine tourism or forest tourism have been recognized as a subfield of tourism (Hall and Härkönen, 2006). Tuohino (2008) in turn has also positioned lake tourism as a subcategory of nature tourism due to the fact that nature as a tourist landscape and environment is an entity with different meanings (see also Koivula *et al.*, 2005; Saarinen, 2004). Gartner (2006) correspondingly states that lake tourism is rural tourism, as the use of lakes is associated with the rural tourism experience. It can also be argued that in many cases lake tourism and water-based tourism with recreational and leisure elements are used as synonyms.

Regarding marketing perspective, textual and pictorial analysis in the context of lake tourism is used, e.g. by Pitkänen and Vepsäläinen (2006), who analysed the

representations of Lake Saimaa and Savonlinna which were communicated and promoted in travel films and brochures, and by Carr (2006) while studying the cultural interpretations of New Zealand lakes in promotional materials and on web pages. Tuohino and Pitkänen (2004) used photos as a data while studying the mental images of Italian and Germans through promotional photos of the Finnish Tourism Board. Despite these studies more research is needed since “successful lake-destination area marketing is tied to a strong destination image” (Erkkilä, 2006: 207).

5.3 Methodology

The general objective of this study is to explore the cognitive image of LDA, analysing both its functional and psychological attributes, and also investigate the nature of the lake tourism concept. This general objective is reflected in the following research questions:

1. What attributes might be involved in the image formation of LDA, as a possible basis for developing a future image measurement scale applied to this particular type of destinations?
2. What are the main characteristics and dimensions of LDA that might contribute to conceptualizing LT as a new form of tourism research?

Based on one of the goals of qualitative research (Gibbs, 2007), this study aims to develop and refine the concept of LT and LDA through the process of identifying pertinent cognitive attributes (both functional and psychological) related to this particular type of tourism. Therefore, this qualitative study was carried out in three main phases:

- (1) A first step aiming to identify the most common DI attributes found in the literature for other types of destinations as previously explained. The goal here is to develop an initial set of potential image attributes which could be compared with the item sample for LDA generated later;
- (2) Extract attributes applied to LDA which might potentially influence the image of this particular type of tourism through content analysis of text and photos;

- (3) Examine and refine the concept of LT and LDA, identifying their main dimensions/characteristics.

Regarding the first phase a final list of attributes was obtained from the literature review. Concerning the second and third phase a content analysis of text and pictures was undertaken. Consequently, an exploratory study was conducted in an online environment by analysing contents of a lake-related website as a source of information (cf. <http://www.lakelubbers.com>), an online directory for lake enthusiasts containing a worldwide database of about 1695 lakes and reservoirs spread throughout the world. Each lake contains a description by people who love lakes, true connoisseurs of inland bodies of water, named as 'lakelubbers', according to the website. It seems appropriate to deem that this is a suitable data base since the aim is to generate a sample of image attributes specifically related to the lake tourism context.

To sample the data a search was conducted to locate the descriptions of potential lake-destinations by screening the lake information within the 'lakelubbers' database. The criteria decision was based on a two-step process: first, geographical scope had to be limited to European countries (n=22), due to the wide variety of lake locations; second, the two largest lakes (by surface area) in each country were considered. A total of 40 lake descriptions (units of analysis) constitute the sample of this study, which were manually browsed and scanned for their textual content. Also in line with the so called 'pictorial turn' (Feighey, 2003) this study simultaneously adopted visual information, particularly lake-related photos. A total of 124 photos from the sampled website were collected and grouped by country. In addition, the pictorial images were content-analysed in order to validate the results obtained in the textual data stage.

5.3.1 Content Analysis of Text

The textual data was first content-analysed using WebQDA (Web Qualitative Data Analysis), software which carries out qualitative data analysis individually or collaboratively, synchronously or asynchronously (Souza *et al.*, 2011). In terms of coding procedure, several coding methods were used (Saldaña, 2009). In fact, a direct approach was undertaken where "the researcher uses existing theory or prior research to develop the initial coding scheme prior to beginning to analyse the data" (Hsieh & Shannon, 2005: 1286). In this case, the choice of the variables was determined

beforehand as part of the study which means that the codebook relied on codes from the past DI literature as mentioned before. A more 'deductive procedure' was undertaken since a prior formulated theoretical schema was used (Mayring, 2000). In fact, the goal here was to conceptually validate or extend a theoretical framework of DI dimensions (e.g. "natural resources", "touristic infrastructures", "tourist leisure and recreation") by using Beerli and Martín's (2004) scale, but applied to the lake-destination context. As analysis proceeded, additional codes were developed more related to lake-destinations, and the initial coding scheme was revised and refined. The qualitative step of this analysis consists of a methodological controlled assignment of the category to a passage of text (Saldaña, 2009). Since coding is a way of organizing and managing data, sub-categories were also defined.

The method of coding was now mixed with an 'inductive procedure'. Grounded on Gibbs' (2007) assumption that coding might add interpretation and theory to the data, particularly if the researcher is interested in generating new explanations and theory, a step-by-step formulation of inductive sub-categories out of the material was also developed. This procedure allowed the generation of new sub-categories specifically related to lake tourism context (e.g. "natural features of the lake"; "water activities, sports and recreation" or "land-based activities, sports and recreation"). Categories and sub-categories were developed accordingly for all the items contained on lake descriptions. This procedure resulted on a refinement of the concept of LT and LDA, thus their main dimensions/characteristics was identified due to this inductive analytic process.

As a final remark, during this deductive and inductive process two coding procedures were used (Saldaña, 2009). The holistic method as an initial and exploratory form of coding, and also a descriptive method in order to identify the main data's basic topics, in this case image attributes of LDA.

5.3.2 Content Analysis of Pictures

The most common approach to evaluating images has been content-analysis traditionally grounded on *motifs* and *themes* (Albers and James, 1988; Govers and Go, 2005). Two formal methodologies are commonly employed in the study of visual images: content and semiotic analysis. Content analysis has been widely used in media

studies for decades, particularly in photographic media (Bell, 2001). In the contexts of tourism photography, content analysis provides an empirical foundation for contrasting and comparing appearances within large data-sets (Marsh, 1984 cited on Albers & James, 1988). The data-set must be composed of the overall content and composition of pictorial elements (Albers and James, 1988; Govers and Go, 2005; Markwell, 1997; Sternberg, 1997).

In this study, the photos were content-analyzed using some principles of iconography. The methodology used here was based, at a first level, on Panofsky's (2006) simple distinction between primary and secondary subject matter, which is an attempt to understand the study of images in tourism. According to Panofsky, the primary level is apprehended by simply identifying certain visible forms with certain objects (*motifs*); the second level is consciously imparted by the practical action which conducted it (*themes*). The *motif* has to be tied to a *theme*, and consequently has to be thematized. Therefore, in Panofsky's sense these two levels of meaning are interrelated, since the understanding of the *motif* depends on the *theme*, and the comprehension of a specific thematization is achieved by combining all the motifs of a visual image. In other words, they are intertwined, and it is by separating the *motif* from the *theme* that one can understand the picture in question (Sternberg, 1997).

In this sense, 124 photos were content-analyzed first in terms of *motifs* and then in terms of *themes*. In the first instance all the *motifs* (objects or appearances) shown in every image were identified using WebQDA software. The meaning was only perceived in an elementary view, the factual meaning, which is simply identifying certain forms (Panofsky, 2006). The *motifs* were then isolated, registered, and freely described without any constraints through the use of colourful boxes which encircle them, each one with a spontaneous comment.

Subsequently, all the *motifs* were first listed, and only after this were they submitted to a process of filtering, clustering or cut-off. Finally, an organized list of motifs was obtained (42 in total) in order to measure the frequency of each motif/object present (or not) in all photos. With each photo being a case, for each object a count was done to indicate if the specific object appeared in the picture or not. This whole procedure of freely registering and describing the *motifs* was meaningful for two reasons: firstly, it

was exploratory, allowing ‘chunking’ of the photos into broad topics and, secondly, it captured all the relevant information.

Lastly, based on Panofsky’s (2006) theory and following the procedure of other photo-based studies (Choi *et al.*, 2007), meaning was added to the photos connecting them to themes. Finally, a photo classification into five categories/themes was done through a combining motifs aiming to extract the main *themes* associated with lakes.

5.4 Findings

The content analysis of text and pictures was conducted separately. However the results were eminently similar. The textual analysis is crucial to respond to both research questions, and the results from visuals are considered to be supportive. First reported are the results of text analysis, followed by pictures, after which the discussion brings observations together.

5.4.1 Results of Textual Information

Research Question 1: What attributes might be involved in the image formation of LDA, as a possible basis for developing a future image measurement scale applied to this particular type of destinations?

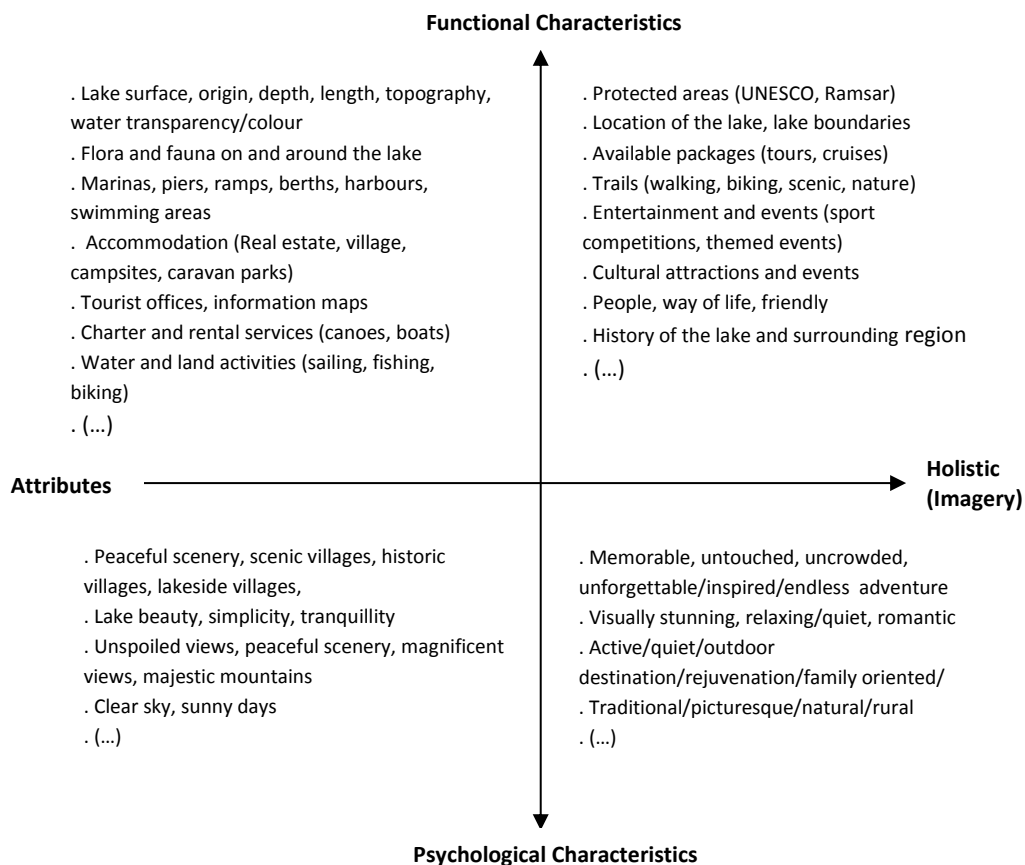
The initial set of image attributes extracted from the literature review reveals that they are too generic (e.g. landscape, sport facilities, culture attractions, accommodation). The list was considered inadequate and did not incorporate all salient attributes for lake-destination areas. Through a deductive approach nine image categories were determined based on Beerli and Martín’s (2004) classification, namely “natural resources”, “general infrastructure”, “touristic infrastructures”, “tourist leisure and recreation”, “culture, history and art”, “political and economic factors”, “natural environment”, “social environment”, and “atmosphere”.

Simultaneously, through a more inductive approach, 23 subcategories in total were identified for these nine categories. As an example, for the category “natural resources” three sub-categories emerged: “natural features of the lake”, “richness of nature”, and “weather”; for the category “touristic infrastructures” four subcategories were defined: “accommodation and catering facilities”, “available packages”, “signed trails and paths”

and “tourist services and information”; for the category “culture, history and art” also four subcategories were extracted: “history of the lake and surrounding region”, “museums and historic buildings”, “cultural attractions and events” and “gastronomy”, and so forth. Additionally, each subcategory includes several image attributes more related to LDA with the correspondent excerpts from lake description. A set of over 100 potential variables were extracted.

Conclusively, the combination of findings from an analysis of image attributes found in the literature review for other types of destinations with content-analysis of a specific lake-related website provides a more complete picture of lake image variables. Some of these attributes are illustrated in Figure 5.1 based on the functional-psychological continuum Echtner and Ritchie’s model (1991, 1993)

Figure 5.1 - Functional-Psychological and Attribute-Holistic Components with Potential Influence on The Formation of Lake-Destination Areas.



Source: Own Elaboration, adapted from Echtner and Ritchie (1991, 1993).

This continuum may be perceived from functional to psychological attributes about individual characteristics or more holistic impressions of a LDA. As illustrated, the upper left quadrant contains individual attributes which are directly observable (e.g. physical features of the lake, water and land activities, nautical infrastructures); the lower left quadrant includes individual attributes more difficult to observe (e.g., the beauty of the scenery around the lake, the villages on the lakeshore); the upper right quadrant contains tangible attributes, however, contributing to a more holistic impression (e.g. events on and around the lake, history of the lake and region); the lower right quadrant comprises intangible attributes essentially described as the atmosphere or mood of a lake-destination area.

Research Question 2: What are the main characteristics and dimensions of LDA that might contribute to conceptualizing LT as a new form of tourism research?

The initial coding, using the holistic method, promptly identified two main themes in each lake's description: (i) the lake itself and lakeshore, and (ii) the destination/surrounding region. The former consists of all the elements that take place on the lake and lakeshore which are directly related to it (natural characteristics, activities, infrastructures); the latter incorporated the same elements but now located in the surrounding region. The following quotation about Lake Garda in Italy (IT19) clearly illustrates this idea: "*After you have finished exploring the region, it's time to explore Lake Garda's 90,000 acres of water*". With this in mind, three spatial levels in terms of tourism development came out: (i) development on the lake itself as the main resource of this type of tourism; (ii) development on the lakeshore, intertwined with the (iii) development of the surrounding region. Therefore, it was possible to identify five main dimensions of LT as field of tourism studies, which corroborate the findings from the literature review stage.

Each of these five dimensions (Ryhänen, 2001b), described in more detail hereafter, are intersected by the previously defined spatial levels: (1) *Resource Dimension*, including all the natural, cultural and social resources (e.g. "*A nature reserve of over 9000 acres completely surrounds the two lakes (...)*" Lake Laguna/Spain); (2) *Supply Dimension*, referring to all the services, facilities and infrastructures which not only allow access but also add value to resource dimension (e.g. "*Access to the lake can be found at most campgrounds, and many cities and villages on the lake have public boat launches.*"

Lake Ijssel/Holand); (3) *Logistical Dimension*, referring to the existence of means of connections between lakes, lakes and lakeside villages, and lakes and main cities (e.g. “*Lake Maggiore visitors can take a boat from the town of Stresa to the eastern shores of the lake*” Lake Maggiori/Italy); (4) *Organizational Dimension*, referring to lakes as a geographic and administrative entity that crosses different territories (e.g. “*With the commitment of the three nations to the two lakes, the future is sure to include more people coming to enjoy and explore the international treasure of the Prespa Lakes*”); (5) *Representational/Meaning Dimension*, conceiving lakes as a meaningful place to which the tourist links mental images and feelings formed through experience (e.g. “*the view captures traditional Austrian architecture, historic buildings and a lush alpine setting that creates a perfect image of the Austrian countryside*”. Lake Hallstatter/Austria). In sum, the existence of lake tourism conceptualization was established which undoubtedly requires more investigation on a theoretical and practical level.

5.4.2 Results of Pictorial Information

The results were similar to those of the text content analysis. As explained in the previous section, the applied visual method obtained 42 motifs listed in Table 5.1 The motifs range from water, sky, landscape, vegetation on the lakeshore, flora and fauna to nautical infrastructures, villages, culture, monuments, activities (swimming, fishing), among others, very similar to the textual analysis results.

The most frequently appearing motifs are related to natural elements such as sky, water and landscape. Consistent with text data analysis, pictures with motifs/objects such as “blue sky” (31.5%), “Vegetation on the lakeshore” (30.6%), “landscape/mountains” (29%), and “water’s blue colour” (26.6%) are more prevalent. It is interesting to note that several motifs were highlighted in the photos related to the state of the water: “water act as a mirror” (23.4%), “water transparency” (10.4%), and “uneven water” (13.7%). That suggests that what is proposed about lakes is very much water-based, as expected. Less frequently appearing, but still significant are the motifs “villages on the shoreline” (13.7%), and “cultural heritage/monuments” (13.7%), which are in line with the results of textual information.

Table 5.1 - Content Analysis Results of Pictures (N= 124)

Motifs/Objects (total 42)	Frequency (N° of Images in Which Motif Appears)	Frequency (% of Images in Which Motif Appears)
Blue Sky	39	31.5%
Vegetation on the shoreline	38	30.6%
Landscape/mountains	36	29.0%
Water's blue color	33	26.6%
Water acts as a mirror	29	23.4%
Open and immense sky	26	21.0%
Anchored boats	18	14.5%
Cultural heritage/monuments	17	13.7%
Uneven waters	17	13.7%
Villages on the shoreline	17	13.7%
Water transparency	13	10.5%
Lake sunset	12	9.7%
Sailing on the lake	8	6.5%
Boat slip/access to water	7	5.6%
Islands	6	4.8%
Air view of the lake	5	4.0%
Marina	5	4.0%
Ports and harbors	5	4.0%
Karst topography	4	3.2%
Private houses on the lakeshore	4	3.2%
Road along the lake	4	3.2%
Snow	4	3.2%
Tourist walking on the lakeshore	4	3.2%
Walking trail on the lakeshore	4	3.2%
Bays, nooks and crannies	3	2.4%
City near the lake/urban landscape	3	2.4%
lake's shoreline	3	2.4%
Landscape/meadows	3	2.4%
Lighthouse on the lake	3	2.4%
Local architecture	3	2.4%
Richness of fauna (birds, swans)	3	2.4%
Tourists visiting the monument	3	2.4%
Bathing and swimming	2	1.6%
Boating	2	1.6%
Richness of flora	2	1.6%
Tourists admiring the view	2	1.6%
Dam over the lake	1	0.8%
Fishing	1	0.8%
Ice on the lake	1	0.8%
Idyllic countryside, picturesque	1	0.8%
Man working on the lake	1	0.8%
Natural beaches	1	0.8%

Source: Own Elaboration.

Motifs related to nautical infrastructures such as “anchored boats” appears in 14.5% of the total pictures, “boat slip/access to water” (5.6%), “marinas” (4%), and “ports and harbours” (4%). This illustrates the importance of infrastructures and nautical facilities that allow access to the water and also navigating on it, leading to comfort, convenience

and enjoyment. Surprisingly, water-based activities such as “sailing on the lake” (6.7%), “bathing or swimming” (1.6%) or “fishing” (0.8%) are not significant at all. One more observation on the few experience-based pictures that show people making use leisure/recreational activities based on lakes: the motifs found are mainly related with sightseeing activities such as “tourists walking on the lakeshore” (3.2%), “tourists admiring the view” (1.6%), and “tourists visiting a monument” (2.4%). It is supposed that this implies an inherent limitation of this study; the fact that these pictures do not fully represent the overall aspects of lakes.

Lastly, as explained in the methods section, after listing and analysed all the motifs of the photos, it was necessary to add meaning to the photos by a classification into five categories as depicted in Figure 5.2.

Table 5.2 shows the final result of the categorization procedure of photos. Among the total of 124 photos, 47 were classified as category 1 “Natural Elements”, only based on the presence of natural pictorial such as sky, flora, fauna, lake water, landscape, islands, etc. This is undoubtedly the most important category associated with lakes. Secondly, in order to confirm the relevance of nature, but also the surrounding environment of lakes, category 5 “Natural Environment” appears next, containing 23 photos. The photos classified in this category associated motifs based on the natural elements previously described with the presence of villages on the lakeshore, houses, etc. This is also an important category, as textual analysis revealed.

Thirdly, and following immediately, was category 2 “Infrastructures” containing 20 photos with this classification, mainly based on motifs related to nautical infrastructures (marinas, slips, harbours, etc.). Fourthly, 20 photos were classified in category 3 “Activities and Recreation” containing the presence of motifs such as sailing, boating, fishing, etc. This is the category that surely contributes to transforming lakes into a meaningful experience, an important dimension in the lake tourism concept as textual analysis revealed.

Figure 5.2 - Photographs Used in Content Analysis Representing the Five Categories/Themes.



Category 1 “Natural Elements”: Physical characteristics directly related to the lake.



Category 2 “Infrastructures”: Facilities and infrastructures which allow access to and navigating on the lake.



Category 3 “Activities and Recreation”: Different types of sporting and recreational activities that take place on the lake and surrounding region, where the lake is located.



Category 4 “Culture and Heritage”: Cultural and historical attractions that provide insights into the history of the territory.



Category 5 “Natural Environment”: Includes communities with visible natural elements creating an atmosphere on and around the lake.

Source: Photos from Lakelubbers website available at www.lakelubbers.com/ (accessed on 12.12. 2013).

Finally, the least representative, category 4 “Culture and Heritage” with only 12 photos, which apparently indicates that this is not the central resource of lakes. However, this might be viewed from a different angle, demonstrating that in the future culture, heritage, and history can add value to lakes as the nuclear resource.

Table 5.2 - Visual Information on the Five Sub-Categories/Themes

Category	Nº of Images	% of Images
1. Natural Elements	47	38
2. Infrastructures	22	18
3. Activities and Recreation	20	16
4. Culture and Heritage	12	10
5. Natural Environment	23	19

Source: Own Elaboration.

5.5 Conclusion and Implications

The study examined those image attributes more related to lake-destination areas for a more accurate picture of this recent form of tourism in order to propose a future image measurement scale applied to this particular type of destinations. Thus, DMOs have a more precise view of the characteristics of lake areas allowing them to adequately develop an image to achieve an effective positioning in a more competitive world (Pike and Ryan, 2004). Thus, this study is underpinned by the premise that the development of an image scale, particular for newer forms of tourism such as lake tourism where information about its characteristics is lacking, requires an investigation of the nature of the concept under study.

With this in mind, this first step of a more ample work attempted to contribute to the body of knowledge in two ways: (1) by exploring image attributes more related to lake-destination areas (functional-psychological continuum) that potentially influence the image formation of this type of destination; (2) by investigating the nature of lake tourism and lake-destination areas.

With regard to the nature of lake-destination image, the results indicate that attributes related to lakes can be classified and incorporated into nine dimensions/categories and subcategories as in Beerli and Martín’s (2004) conclusion. These might be used in designing a future image scale for lake-destination areas. However, in accordance with

these authors, the selection of the attributes will largely depend on the type of attractions of each destination, consistently with the type of tourism under investigation. Simultaneously it was evident that in this case lake-destinations are mainly formed on the basis of cognitive image (Martín and Rodríguez del Bosque, 2008), with functional (more tangible) and psychological (more abstract) image attributes, which might be more attribute-based or a more holistic impression. In fact, the existence of a functional-psychological continuum (Echtner and Ritchie, 1991, 1993) was determined for this type of destinations.

Regarding the nature of LT, this research empirically identifies the existence of a LT definition and specific characteristics of this form of tourism. It is clear that the lake itself is the core resource for the development of lake-destinations enhanced by other resources and infrastructures located in the surrounding region. In fact, natural features of lakes such as its surface, length, origin, etc., are important elements that should be considered when promoting the lake. It was also interesting to observe that communities located on the lakeshore or near the lake add an important value to lake-destinations, since in many cases they are considered a base-camp, a starting point for visiting the lake, 'gateways' as Gartner (2006) described. Simultaneously, the existence of some services and infrastructures such as accommodation on the lakeshore, available packages, marinas, ramps or slips, rental services (e.g. fishing or boating), or signed trails around the lake surely contribute to transform a neutral landscape like a lake into a meaningful experience (Tuohino, 2006).

In fact, the results of this study have provided useful insights into how lake tourism has its own particularities that can build upon an effective image and strategically use it in promotional campaigns. Given that, the findings support tourism literature when they established that lake tourism as a concept is grounded on five dimensions as previously described (Resource, Supply, Logistical, Organizational, and Meaning), and should continue to be researched on a theoretical and management level.

There were some inherent limitations to this study. Content analysis is exploratory and is based on subjective judgments to some extent. Furthermore, an exhaustive examination of 42 units of analysis about lake description was made to collect image attributes related to this object. However, the findings may still not fully represent the image of LDA. At some point the units of analysis were too repetitive, containing a very

similar text structure. Additionally, lake lovers' viewpoints may not be fully representative of the travelling public. Nevertheless, by analysing the contents of information provided by a lake lovers' online directory ('lakelubbers'), this preliminary qualitative study confirms that several dimensions and attributes exist specifically related to LDA. One should recall that the goal here was mainly to extract image attributes and not to analyse how lake-destinations are represented on the web, since this is a very recent form of tourism and has not yet been explored in online environments.

Lastly, this study intentionally examined lake descriptions limited to European countries considering the wide scope of geographical areas where lakes are located. For the interpretation of the content analysis results, based on a deductive category application, other steps of analysis might be used for the refinement of these DI attributes. Further research will focus on this issue and also aiming to validate the results here obtained.

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CHAPTER 6

**LAKE-DESTINATION IMAGE ATTRIBUTES: A NEURAL NETWORK
CONTENT ANALYSIS**

(PAPER 5)

LAKE-DESTINATION IMAGE ATTRIBUTES: A NEURAL NETWORK CONTENT ANALYSIS

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Abstract

This Paper aims to explore and analyse lake image attributes extracted from a content analysis of an online directory for lake enthusiasts. CATPAC, a text-mining software program based on artificial neural networks, was adopted. The resulting output was used to identify the words that were most frequently mentioned to portray image attributes related to lake-destination areas (LDA). The findings also revealed that the final set of LDA image attributes is intertwined with the main dimensions of the lake tourism concept.

Keywords: Destination Image, Lake Tourism, Lake-Destination Areas, Image Attributes, Content-Analysis, CATPAC.

6.1 Introduction

Forty years of research have clearly demonstrated that destination image (DI) is nowadays an important field of tourism studies, more specifically destination marketing inquiry. However, an apparent absence of homogeneity related to DI theory and empirical work have led to a lack of theoretical framework, continuously pointed out by several researchers in the field (Baloglu and McCleary, 1999; Echtner and Ritchie,

¹² This is an Author's Accepted Manuscript of a paper published as: Rodrigues, A., Correia, A., Kozak, M. (2015). Lake-Destination Image Attributes: A Neural Network Content Analysis. *Destination Marketing: an International Perspective*, Routledge (forthcoming).

The authors retained copyrights in the Appendix 10.

Paper status:

This paper was presented at the 7th *World Conference for Graduate Research in Tourism, Hospitality and Leisure*, Kadir Has University, 3-8 June 2014, Istanbul, Turkey, under the title 'Lake-Destination Image Attributes: A Neural Network Content Analysis', available at <http://www.anatoliajournal.com/graduate/2014.pdf> and submitted by invitation to be published in a Special Edition of Routledge (Forthcoming).

1993; Fakeye and Crompton, 1991). This is mainly due to the fact that DI can be classified as an ‘umbrella construct’ which requires an evolutionary approach when investigating this field of research (Rodrigues *et al.*, 2011, 2012).

Embraced by a cyclical process, different theories, perspectives, methods and techniques have been emerging in recent decades and new trends in DI field are arising (Stepchenkova and Mills, 2010). For example, new methodologies for DI measurement based on Jenkins’ (1999) broaden model which incorporates two phases of research (both qualitative and quantitative), started to emerge. In the last decade, multimethod studies have been increasing in this field of research (e.g. Martín and Rodríguez del Bosque, 2008; Rolo-Vela, 2009), where computer-aided text analysis, specifically the use of CATPAC software (Ryan and Cave, 2005; Choi *et al.*, 2007; Govers and Go, 2005; Govers *et al.*, 2007; Ryan, 1998) has been highlighted.

In addition, as a result of an intensive competitive environment non-traditional entities have started to be the focus of recent DI studies, such as regions (Kastenholz *et al.*, 1999; Silvestre and Correia, 2005), resorts (Alcañiz *et al.*, 2009), or types of tourism (Silva *et al.*, 2013). Particularly related to lake tourism, very little is known about destination marketing and image applied to the lake tourism context (Tuohino, 2006). This is a relatively unexplored research theme of tourism studies, specifically in DI field.

In this context, this study aims to advance knowledge of lake tourism as a recent research area in tourism studies and to extract image attributes more related to lake-destination areas (LDA). For this purpose, the study’s goal is to explore and analyse the findings obtained through content-analysis and validate their interpretation. In order to assure the reliability of these outputs, a different method of analysis was adopted through the use of a computer-aided text analysis named CATPAC (v. III), which “is able to identify the most important words in a text and determine the patterns of similarity based on the way they are used in the text” (Woelfel, 1998: 11). CATPAC is as a self-organizing artificial neural network software package that has been optimized for reading text.

6.2 Literature Review

The literature review of DI research over the last forty years clearly demonstrated that (1) destinations under study were mainly large-scale entities; (2) only three DI scales were considered to be reliable and valid (Rolo-Vela, 2009); (3) there is no consensus about which attributes should be selected and included in DI scale and finally (4) DI scales should progressively include attributes that really match the object under study (Rodrigues *et al.*, 2012).

Additionally, recent studies (Stepchenkova and Mills, 2010) argue that the scope of DI measurement has become wider including non-traditional entities, such as national parks, resorts, rural areas and sport events. In this line of thought there is also Beerli and Martín's (2004: 659) rationale for whom "the selection of the attributes used in designing a scale will depend largely on the attractions of each destination, on its positioning, and on the objectives of the assessment of perceived image, which will also determine whether specific or more general attributes are chosen". Also, Correia *et al.* (2010) posits that the probability of choice by tourists is strongly affected by different attributes related to destination characteristics, among other variables.

Given this, and considering the fact that due to the multifaceted nature of tourism new typologies have come into existence over the last decade, DI scales should consider the attribute differences not only based on geographical scope, but also on the type of entity/object, such as types of tourism and destinations. In this context and particularly related to water as a tourism resource, a new type of tourism has emerged - lake tourism - as a relatively unexplored research theme of tourism studies with an emerging body of literature (Cooper, 2006; Tuohino, 2006). Lakes are open bonds of water (natural or man-made) which can either be considered as a tourism resource, which adds value to the whole destination experience or arise as the core of the destination's attractiveness. In fact, tourism development not only on the lake itself but in the surrounding area might constitute a valuable resource for some countries if properly developed.

Based on this, due to the emergence of LDAs all over the world, it is assumed that DI might represent a relevant basis for the development and management of this new type of destination. According to Pike and Ryan (2004), DI is considered a key construct in destination positioning, and destinations should be oriented to target positioning in their

own competitiveness set (Bahar and Kozak, 2007; Kozak, 2002; Kozak and Rimmington, 1999). For this reason, the objective of this study is to explore what attributes might be involved in the image formation of LDA, as a possible basis for developing a future image measurement scale applied to this particular type of destinations.

Grounded on the premise that various methods should be used to explore DI attributes, both qualitative and quantitative (e.g. Martín and Rodríguez del Bosque, 2008; Rolo-Vela, 2009), this study assumes that unstructured and semi-structured techniques should be employed to obtain more knowledge concerning image attributes (Prebensen, 2007; Ryan and Cave, 2005). Similarly to Cave *et al.* (2003), this study also advocates that there are advantages in employing qualitative techniques, particularly in the early stages of a DI research, since it apprehends more aspects of image.

6.3 Method

The qualitative phase began with an analysis of the image measurement variables found in the literature for other types of tourist destinations. A meta-analysis paper concerning DI as a field of research since the emergence of the construct in the 1970s was examined. Having as a base line the list of the most common DI attributes proposed by Gallarza *et al.* (2002), an extension of the period was considered (2000 to 2012) and twenty-four research studies were analysed (Rodrigues *et al.*, 2015). With this in mind, and since the scales analysed did not correspond well to the object of the study (LDAs in this case), the goal of the study is to explore the cognitive image of LDA, analysing both its functional and psychological attributes, and also to investigate the nature of lake tourism concept.

This Paper focuses on validating the results obtained through the content-analysis method (see Rodrigues *et al.*, 2015). As suggested by Ryan (1998), other steps of analysis might be implemented for the refinement of the final results and one way of attempting to assess the qualitative data is by trying to establish relationships between phrases and words. Therefore, by matching the results from content-analysis with the establishment of associations between words (attributes) through perceptual maps, it

becomes possible to assess whether the data are mutually supportive. With this in mind, this Paper focused on the use of a neural content-analysis with CATPAC software.

As a reminder, the general objective of this study was to explore the cognitive image of LDA, analysing both its functional and psychological attributes, and also investigate the nature of the lake tourism concept. This general objective was reflected in the following research question:

1. What attributes might be involved in the image formation of LDA, as a possible basis for developing a future image measurement scale applied to this particular type of destinations?

The extracting process was carried out based on a content analysis of text and pictures as database of an online directory for lake enthusiasts (cf. www.lakelubbers.com). A total of 40 lake descriptions (units of analysis) constitute the sample of this study (for a more detailed explanation see Rodrigues *et al.*, 2015). As a first step a ‘deductive procedure’ was conducted since the goal here was to conceptually validate a theoretical framework of DI dimensions (e.g. “natural resources”, “touristic infrastructures”) by using Beerli and Martín’s (2004) scale, but particularly applied to the lake-destination context.

As analysis proceeded, additional codes were developed more related to lake-destinations, and the initial coding scheme was revised. Sub-categories were then defined through ‘inductive procedure’ as a method of coding (e.g. A.1. “physical features of the lake”; A.2. “richness of nature”; A.3. “weather” under category A. “natural resources”). Through a deductive-inductive approach it was possible to generate a set of over 100 potential attributes related to LDA, grouped into 21 subcategories, classified in nine predetermined categories or domains (see Table 6.1). These items might be included in an image measurement scale for this type of destinations in the future.

Table 6.1 - Defining Dimensions and Attributes of Lake-Destination Areas from Content-Analysis

Categories	Sub-Categories	Attributes/Properties (some examples)
A. Natural Resources	A.1. Physical features of the lake A.2. Richness of nature A.3. Climate	A.1. Origin, type, surface, depth, elevation, length, topography (...) A.2. Protected Areas, flora and fauna (birds, fish); sky, beaches, islands (...) A.3. Temperature (...)
B. General Infrastructure	B.1. Quality of roads B.2. Transport facilities B.3. Nautical facilities and other infrastructures	B.1. Access roads to the lake; circular drives. B.2. Existence of nearby airport; between villages around the lake; between lakes; between islands on the lake. B.3. Marinas, ports, public ramps, boat slips, public piers, berths, swimming areas; boardwalks.
C. Tourist Infrastructure	C.1. Accommodation and catering facilities C.2. Available packages C.3. Signed trails and paths C.4. Tourist services and information	C.1. Caravan parks, cottages, real estate, camping, hotels, chalets, vacation rentals (...) C.2. Sightseeing tours, excursions, cruises (half-day, whole-day, evening, lunch), fishing trips (...) C.3. Bicycle trails, climbing trails, hiking trails, nature /scenic trails, walking trails (...) C.4. Maps, tourist offices, visitor/information centres, nature centres, picnic areas, charter
D. Tourist Leisure and Recreation	D.1. Water activities, sports and recreation D.2. Land-based activities, sports and recreation D.3. Winter activities, sports and recreation D.4. Entertainment and events	D.1. Boating, boardwalk, canoeing, fishing, houseboating, lake sightseeing, kayaking, kite-surfing, sailing, swimming. D.2. Biking, birdwatching, climbing, hiking, paragliding, picnicking, sightseeing, rock climbing trekking, walking. D.3. Alpine and Nordic skiing, dog sledding, ice fishing, ice skating, ice climbing, snowboard, snowshoeing, toboggan. D.4. Sport competitions (regattas, tournaments, parades), themed events (wine festivals, evening parties), local attractions (swimming pools, casinos), nightlife.
E. Culture, History and Art	E.1. History of the lake and surrounding region E.2. Museums and historic buildings E.3. Cultural Attractions and events E.4. Gastronomy	E.1. historic ruins, archaeological ruins and artefacts, local architecture, legends/stories, caves, UNESCO. E.2. Museums, castles, fortresses, fortifications, churches, monasteries, abbeys, chapels, cathedrals, monasteries, (...) E.3. Music festivals and demonstrations, concerts, recitals, exhibitions, theatre, dance performances. E.4. Local dishes, wine, (...)
F. Political and Economic Factors	F.1. Geographical location and territorial division F.2. Lake purposes (past and present)	F.1. Location, countries and region boundaries, geo-political significance of the lake. F.2. Salt extraction, fishery, energy production, supply of drinking water, agriculture,
G. Natural Environment	G.1. Attractiveness of the communities G.2. Beauty of the landscape/scenery	G.1. Historic villages, mountain villages, cities, hamlets, lakeside towns, small towns, (...) G.2. Rural, natural, alpine, mountain, vineyards, orchards, vegetable farms, deep valleys, foothills, alpine.
H. Social Environment	H.1. Host community	H.1. Presence of local people, way of life, hospitality and friendliness.
I. Atmosphere	No sub-category	Active, amazing scenery, breathtaking views, challenging, dramatic scenery, friendly and family-oriented lake, inspired, simplicity, tranquillity, beauty, memorable, outdoor destination, picturesque, quiet, rejuvenation, relaxing, unspoiled, romantic.

Source: Own Elaboration.

After this and in order to respond the second research question, a holistic method of coding was applied and five dimensions of lake tourism concept were extracted (resource, supply, logistical, organizational and representational). Based on these results of the conventional content analysis mentioned above, and aiming to enrich the interpretation of those results, a different method of analysis was used. CATPAC is a self-organizing artificial neural network software package, which “is able to identify the most important words in a text and determine the patterns of similarity based on the way they are used in the text” (Woelfel, 1998: 11).

Simply, CATPAC is based on a neural modelling technique that generates a frequency table and proximity for the most common words. As Govers and Go (2005) explain, proximities between words consists of artificial neurons or nodes which are connected by communications channels of varying strength within a sliding text window chosen by the researcher (standard size is 7 words, i.e., CATPAC moves a window of 7 words over the text and calculates proximities based on the number of times words are found together within these frames). For a good overview refer to Woelfel (1998), Doerfel and Barnett (1999). Conjointly, other researchers have supported the use of CATPAC as a helpful tool for content analysis in tourism studies (Cave and Ryan, 2005; Choi *et al.*, 2007; Govers and Go 2005; Govers *et al.*, 2007; Ryan, 1998). Summarizing, the resulting neural network output was used to identify the words that were most frequently mentioned to portray image attributes related to LDA.

Similar to Choi *et al.*'s procedure (2007), some technical operations were needed to achieve interpretable results: (1) the program eliminates “stop words” (Doerfel and Barnett, 1999), which include a list of articles, prepositions, conjunctions, and intransitive verbs that do not contribute to the meaning of the text (e.g. *if, and, to, is*); (2) comprised of two and more words into one so that they are not counted separately (e.g. *National Park; Real Estate*); (3) replacing plurals with singulars (e.g. *lake, mountain, island, city, village* all in singular) and past tense with present tense.

Multiple runs of the CATPAC were then conducted to further exclude other words that do not contribute to a meaningful interpretation of the results. According to Doerfel and Barnett (1999: 592) CATPAC “then counts the occurrences of the remaining words yielding the most frequently occurring words equal to the value set by the user. CATPAC creates a words-by-words matrix which cell containing the likelihood that the

occurrence of one word will indicate the occurrence of another”. This matrix is then entered into a variety of multivariate analytic procedures through the use of two familiar techniques: cluster analysis and multidimensional scaling (“perceptual mapping”). A ‘dendrogram’ as a graphic representation of the clusters in the text is produced indicating the degree of clustering (for a more in-depth explanation see Doerfel and Barnett, 1999; Woelfel, 1993). In order to enrich the analytic procedure, a visual plot of the symbols by multidimensional scaling is produced by CATPAC.

Based on the results of the content analysis as previously presented, the text data analysed by CATPAC was classified under themes or domains. The process of defining these themes was derived from the intersection of the first and second research question results. Therefore, five themes were extracted and the text data disposed, namely: *theme 0* based on a total combined lake description (40 texts of all units of analysis); *theme 1* correspond to lake natural resources (about the lake itself); *theme 2* with a destination description (natural and social environment, atmosphere); *theme 3* comprised text data about destination heritage; (e) *theme 4* with the activities and facilities (general and tourist infrastructures and activities on and around the lake).

6.4 Findings

As previously explained the initial set of image attributes extracted from the literature review reveals that they are too generic (e.g. landscape, sport facilities, culture attractions, accommodation). The list was considered inadequate and did not incorporate all salient attributes for lake-destination areas. Through a content analysis deductive approach nine image categories were determined based on Beerli and Martín’s (2004) classification and 21 subcategories identified through a more inductive approach. Each subcategory includes several image attributes more related to LDA. The outcomes of the conventional content-analysis were the nine categories and 23 sub-categories. A set of over 100 potential variables were extracted from textual analysis.

Using CATPAC content-analysis software, the totality of qualitative responses for each theme or sub-category was processed (Choi *et al.*, 2007; Gretzel and Fesenmaier, 2003; Ryan, 1998). Table 6.2 displays and compares the top 30 most frequent words for each theme and shows the combined total frequencies for all themes extracted from

CATPAC outputs. This procedure was undertaken since the purpose behind the study was to obtain key descriptors that could be incorporated into a posterior questionnaire.

Table 6.2 - Most Frequent Words Related to LDA in Rank Worder

Rank	Total Combined	Theme 1	Theme 2	Theme 3	Theme 4
1	Lake	Lake	Lake	Lake	Lake
2	Water	Water	Visitor	Castle	Boating
3	Area	Feet	Area	Northern	Fishing
4	Visitors	Acres	Beautiful	History	Water
5	Along	Largest	Shoreline	Historical	Visitor
6	Fishing	River	Northern	Century	Area
7	Shoreline	Depth	City	Shore	Along
8	Around	Miles	Water	Area	Shoreline
9	Miles	Area	Town	Early	Holiday
10	City	Known	Village	Dates	Offer
11	Island	over	Museum	Time	Rentals
12	Enjoy	Northern	Forest	Abbey	Around
13	Holiday	Island	Nature	Island	Enjoy
14	popular	Sea	Around	Ruins	Available
15	Large	Fishing	Mountain	Years	Popular
16	Over	Fish	Over	Western	Town
17	Offer	Located	Miles	Visitors	Skiing
18	Mountain	Shoreline	Largest	Place	Several
19	Village	Surface	Enjoy	First	Vacation
20	Year	Part	NationalPark	NationalPark	Trails
21	North	Reservoir	Lough	Built	Island
22	Known	Smaller	Find	Lies	Mountain
23	Home	Includes	Home	Thousands	Cruise
24	Town	Trout	Along	City	Including
25	Provide	Natural	Located	Stone	Village
26	River	Years	Feet	Ohrid	Local
27	Feet	Canal	Irland	Goods	Find
28	Vacation	Species	Popular	Sweden	Hiking
29	Several	Salmon	Destination	Ancient	Provide
30	Located	Provide	Castle	UNESCO	Home

Source: Own Elaboration. Generated by CATPAC software. Theme 0/total combined lake description; theme 1/lake natural resources; theme 2/destination description; theme 3/destination heritage; theme 4/activities and facilities.

Not surprisingly, “lake” was the most frequently used word in all themes and also “water” in *theme 0* and *theme 1*. This reinforces the idea that “lake” and “water” are the two main attributes related to LDA, indicating that lake itself is the core resource of lake tourism as a type of tourism. “Visitor”, “castle” and “boating” were the second most ranked words in *theme 2*, *theme 3* and *theme 4*, correspondently. This is an evident outcome since *theme 2* comprehends the visit to the surrounding region where the lake is located, therefore the tourist truly becomes a “visitor”; *theme 3* specifies heritage as

an important element of the destination, where “castle” was ranked higher than the other themes; *theme 4* comprises “boating” as the most ranked word showing that this is undoubtedly the utmost important activity in LDA.

Another interesting analysis might set out a more focused observation on each theme. In *theme 1*, which characterizes the lake itself emphasizing its natural resources, the ranks of words such as “feet”, “largest”, “depth”, “surface”, “island” might indicate that natural features (e.g. depth, surface or topography) seem to be important attributes when promoting lakes for tourism. Seemingly, natural resources such as ichthyofauna through the words of “fishing”, “fish”, “trout”, “species” or “salmon” also reveals the relevance of this type of attributes related to LDA. Another interesting observation is “shoreline”, which is used across all themes (except *theme 3*), and was the 18th most frequent word in *theme 1*. This reinforces the notion that LDA are being described or projected based on a strong association between lakes and their shorelines.

In *theme 2* examples of the most frequently mentioned terms are “city”, “town” or “village”, which are intertwined. These words constitute an important group, emphasizing the description of the region where the lake is located. It can be inferred that the cities or villages around the lake are relevant attributes when promoting lake tourism. In addition, natural and cultural attributes located in the surrounding region also add value to the lake itself (e.g. “forest”, “nature”, “mountain”, “National Park”). Similarly the words “museums” and “castle” also indicate the relevance of cultural attributes. Not surprisingly, in this theme the word “water” emerges only as the 8th most frequent word, since the core here is not the lake, but the surrounding region.

In *theme 3*, in which the text data is related to destination heritage, the tendency appears to be the promotion of the destination history and its historical elements. That is evident through the words “history” and “historical” ranked in 4th and 5th position, correspondently. Words such as “century”, “ruins” and “ancient” corroborate this assumption. Another interesting observation refers to the word “UNESCO” revealing that the classification as World Heritage Sites by UNESCO, namely cultural sites, is a relevant attribute for LDA. The tendency appears to be that UNESCO cultural sites might add a significant value to the lake, suggesting its importance when promoting LDA.

Theme 4 refers to the activities and facilities located on and around the lake. The top 30 most frequently words highlight the occurrence of activities on water (e.g. “boating”, “fishing”, “cruise”) and at the surrounding region (e.g. “skiing”, “hiking” and “mountain”) as a key attribute for lake tourism and, consequently LDA. Following this line of thought, words such as “available”, “offer” and “provide” clearly demonstrate that for LDA it not only is the existence of lakes important as a resource, but also a supply of nautical and touristic infrastructures and activities. Interestingly, and corroborating this inference is the word “trails” ranked in 20th position, which provides evidence once more of the need to support the existence of natural and cultural resources with signed trails and paths.

A final remark on *theme 0*, which shows the total combined frequencies for all themes (40 texts of all units of analysis). This means that “lake” and “water” not surprisingly are the most frequent words when charactering LDA. These attributes refer to the nuclear resource of lake tourism, the lake themselves. The words “city”, “village” and “town” also appear in this top 30 demonstrating once more that these places are of utmost importance when promoting lakes. This means that not only is the lake itself relevant, but also the territory where the lake is located. In a similar way this is also expressed through the word “enjoy” ranked in 12th position. The idea is to have a pleasurable time near the lake and to appreciate a sum of attributes that comprised the destination where the lake is located.

The next step was to return to the text and develop a perceptual map with CATPAC. Figure 6.1 presents a two-dimensional perceptual map of *theme 2* as an example. The analysis contains the results from *theme 2* that shows attributes more related to the surrounding region where the lake is located. The analysis was restricted to 30 keywords. As in textual analysis, the top left-hand cell of the diagram shows a clustering of words (“nature”, “around”, “forest”) associated with nature and the landscape which surrounds the lakes. The top right cell also corroborates this revealing a cluster with the words like “mountain” and “national park” and “view”. The bottom right cell shows “town”, “village” and “city” related closely to each other. This word association brings into the discussion the value that the communities located around the lakes have in terms of tourism development.

Figure 6.1 - Two-Dimensional Perceptual Map of Theme 2/Destination (an example)



Source: Generated by CATPAC software with author's data.

6.5 Conclusion

The findings of this study, based on CATPAC analysis, suggest that certain themes or domains exist in lake tourism conceptualization (e.g. “lake natural resources”, “destination description”, “activities and facilities”), corroborating the need to understand better lake tourism as a particular type of tourism. The text data analysed by CATPAC classified under five themes confirms Rodrigues *et al.*'s (2015) conclusions that the lake tourism concept should be analysed according two main spatial levels of development: (i) the lake itself and lakeshore, and (ii) the destination/surrounding region. This is also in line with the five dimensions of the lake tourism concept obtained through a content-analysis process. It is thus believed that conceptualizing lake tourism facilitates a move forward in developing an image measurement scale more adapted to LDA.

This Paper examined image attributes which are more related to this type of tourism for a more accurate picture of lake tourism. The first stage of a qualitative study confirms that several dimensions and attributes exist specifically related to LDA, through an analysis of information contents provided by a lake lovers' online directory ('lakelubbers'). As a result of the initial data collecting-phase and content analysis, a set of more than 100 variables that potentially influence the image formation of LDA was

obtained. This set of variables contained both functional and psychological attributes according to Etchner and Ritchie's (1991, 1993) model.

These results were then validated by the use of CATPAC, as a self-organizing artificial neural network software package, in order to assure the reliability of the outputs. Certain words or attributes which represent the image projected by LDA, following specific patterns of associations was obtained. The rank words by themes extracted by CATPAC related to LDA corroborate the set of variables obtained by content-analysis. LDA's projected image related to "lake natural resources" is represented by words such as "feet", "largest", "depth", "miles" or "area", which means that lake features as "surface area", "depth", "length" might be important attributes when promoting LDA. Additionally, words such as "city", "town" or "village" also came up, showing how relevant they are for LDA image, adding value to the lake itself. Or the theme "destination heritage" with words such as "castle", "century", "abbey" or "ruins", which demonstrated the importance of highlighting these attributes when promoting LDA. The theme "activities and facilities" also revealed that "boating", "fishing" or "cruising" are some examples of nautical activities intertwined with LDA.

Based on these results, future research will focus on this issue and also aim to validate the results here obtained through stakeholders interviews, based on the case of the Alqueva Lake as a recent LDA. Located in the south of Portugal, in the Alentejo region, this is the biggest man-made lake in west Europe. Future lines of research should be directed towards reliable and valid scales for this type of tourism.

The development of this scale could provide relevant and useful information for tourism decision makers in order to design a marketing management strategy for this type of destinations. This is in line with several researchers who argue that image is an important component for a more competitive destination (Ritchie and Crouch, 2003) and directly influences the choice of a destination, valued attributes, and purchase process (Morgan and Pritchard, 1998). All the decisions to create or improve a LDA image, its positioning in the market and enhance competitive advantage of such locations are based on the implementation of elements related to the set of image attributes extracted from the content-analysis and validated by CATPAC.

Acknowledgments: The authors would like to thank to Joseph K. Woelfel, the CATPAC's author, for all his support and insightful comments.

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CHAPTER 7

**ASSESSING LAKE-DESTINATION IMAGE: INSIGHTS FROM THE
INDUSTRY SIDE**

(PAPER 6)

ASSESSING LAKE-DESTINATION IMAGE: INSIGHTS FROM THE INDUSTRY SIDE

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Abstract

This research aims to depict an image which is feasible for lake tourism destinations. The attributes were tested by means of different qualitative analysis among stakeholders in the Alentejo Alqueva Lake, Portugal. The generation of these items in an emerging destination will contribute to strengthen the concept, characteristics, and dimensions lake tourism image and enrich a theory-building process in regard to this recent field of research. The findings also demonstrate the importance of employing various techniques in obtaining image attributes as a first step in analysing images, particularly in the case of unexplored destinations. Further, the findings highlight that checklists, free elicitation, photo-elicitation and content analysis in combination perceive similarities and differences of potential images held by the stakeholders. The results also confirmed that, despite the fact that image attributes are universally important, other attributes are only important for specific types of tourism. Lastly, the Paper discusses and suggests potential image characteristics of LDA as a foundation for creating competitive advantages in the future for this type of destinations.

Keywords: Destination Image, Lake-Destination Areas, Content-Analysis, Free-Elicitation, Photo-Elicitation, Alqueva Lake.

7.1 Introduction

Two main approaches define a destination (Saraniemi and Kylänen, 2010): (a) a *geography-oriented approach* that regards destinations as a defined geographical area

¹³ This is an Author's Submitted Manuscript to the International Journal of Culture, Tourism and Hospitality Research, edited by Emerald. Under submission.

Paper status:

This paper was presented at the 9th CPTHL Symposium Consumer Psychology of Tourism, Hospitality and Leisure Research, 1-4 July 2015, Namur, Belgium, under the title 'Assessing Lake-Destination Image: Insights from the Industry'. This paper was one of the three nominees for the Category *Best Paper* in this Conference.

such as country, island or town, and (b) a *marketing management approach* inspired by a marketing management paradigm that defines destinations as a commodity product. Informed by the first approach, Butler (1980) helped understand that different destinations are at different stages of the life cycle, since they are dynamic, evolving and changing over time. Buhalis (2000:104) worked on Butler's theory and, being more framed by the marketing perspective, stated that "different stages of the life cycle require different marketing strategies and planning actions". Image about a place is considered as a key component of a destination (Ritchie and Crouch, 2000), since directly influences the choice of that destination (Morgan and Pritchard, 1998). For Buhalis (2000) the fact that each destination is at a different stage of its development influences any marketing or promotion strategy. Image might, in fact, contribute to enhancing a destination's competitiveness. This is even more valid in the cases where the destination is at the very beginning of its life cycle, specifically in recent types of tourism such as lake tourism. Also in line with Rolo-Vela (2009), this Paper advocates that due to its simplicity and ability to integrate factors, image strongly contributes to the development of a destination. In this sense, and based on forty years of destination image (DI) research (Rodrigues *et al.*, 2012), a DI assessment study can help DMOs and tourism companies to identify the best direction for implementing a suitable development strategy.

Regarding lake tourism, there is a lack of research about the characteristics and dimensions and also about the identification of attributes involved in the formation of LDA image. The goal of the current research is to explore more thoroughly lake tourism based on the Alqueva Lake as an emerging LDA located in the south of Portugal and, simultaneously, to assess the applicability of image attributes in this study site. This work also evaluates diverse explorative qualitative techniques as tools to identify image perceptions. More specifically, this study attempts to answer the following research questions: (1) which attributes are most relevant for the image formation of a LDA?; (2) which attributes of LDA best describe the Alqueva Lake as an emerging LDA? and (3) what are the characteristics, dimensions and perceptions of lake tourism and the Alqueva Lake as an emerging LDA?

7.2 Literature Review

Over the last forty years of research, destination image (DI) has been difficult to investigate. Three lines of thought have developed within an evolutionary perspective. Initially, a positivist approach was adopted where DI was mainly measured using quantitative methods (e.g. Gartner, 1989). However, these methods frequently failed to capture DI as a complex construct. After this, relying on a more constructivist critical view of the research process, a qualitative approach was proposed in order to better capture and assess DI (Dann, 1996). Additionally, researchers realized that a combined approach was most suitable (Echtner and Ritchie, 1991, 1993).

Given the above, this Paper advocates that when pursuing a more evolutionary perspective of DI construct based on a life-cycle as a framework (Rodrigues *et al.*, 2012), combining methods and techniques within different stages of the research seems to be the most convenient methodology. Moreover, when dealing with new typologies such as lake tourism, an explicit examination of the destination's characteristics is required. In fact, a large number of studies have assessed DI in general, but few have attempted to measure it for any specific context (Pike, 2002). This might suggest that the characteristics of a specific destination have not been taken into consideration when image assessment occurs.

Furthermore, lake tourism and LDA have been particularly absent from DI research. It is worthy to note that lakes are open water bodies, dams or reservoirs which might represent a valuable resource for a variety of human activities based on their landscape features, flora, fauna and cultural attractions. When defining lake tourism (e.g. Cooper, 2006; Ryhänen, 2001; Tuohino, 2006) it is perceptible that the development of tourism occurs on three spatial levels: the lake itself, the lakeshore and the surrounding region. Additionally, lake tourism should be developed based on the concept of Lake Wellness product (Konu *et al.*, 2010). This is a very recent sub-field of tourism studies, which justifies its investigation on a theoretical as well on a practical management level.

7.3 Research Methodology

From data collecting-phase and content analysis, a list of more than 100 attributes that could potentially influence the image formation of LDA was obtained (Rodrigues *et al.*,

2014, 2015). The perceptions of stakeholders professionally involved with this type of destination were examined in order to assess the applicability of image attributes related to LDA extracted from this prior list. Seventeen semi-structured interviews were carried out with various stakeholders. This study incorporates two approaches: an attribute-based approach (textual data), but also a photo-based approach (visual data), specifically with photographs of the Alqueva Lake.

The structure of the interview consisted mainly of two sections. The first was a more structured part with the aim to cover the first and the second research questions. In this case, three techniques of extracting data were used. The intention was to mix up the techniques to assess the applicability of the items captured from the previous stage. The second section consisted of seven open-ended questions which aimed to answer to the third research question.

Therefore, the qualitative methodology followed comprises the generation of a checklist, free-elicitation and photo-elicitation techniques. The **checklist** is a comprehensive set of image attributes related to LDA was listed across a table as a common method for data collection in DI studies. The respondents were asked to rate their importance for lake tourism and also if they describe the Alqueva Lake as an LDA. The items included in the table were determined from Rodrigues *et al.*'s results (2015a, 2015b), which identified a list of image attributes specifically related to LDAs.

Free-elicitation technique was also used to enrich the results (Olson and Muderrisoglu, 1979), in which respondents are free to say anything and everything that comes to mind when presented with a stimulus (Reilly, 1990). The phrase that attempts to trigger a response, activating a particular structure of stored knowledge was "*Tell me what comes to mind when you think of the Alqueva Lake as an LDA?*".

Concerning the **photo-elicitation technique**, it consists of the simple idea of inserting a photograph into a research interview (Harper, 2002). In fact, the use of photographs as a research method has been recommended since is evident that images evoke deeper elements of human consciousness (Schwartz, 1989). Photo-elicitation has been applied to tourism (e.g. Fairweather and Swaffield, 2002). Stakeholders professionally involved in tourism were asked to elicit attributes from DMO official photos of the Alqueva Lake. These photos were submitted to a multi-stage selection procedure and then

classified according to five categories (Rodrigues *et al.*, 2015a). The final subset of photos throughout the interviewing process was based on a mixed approach: photo ratings (Ye and Tussayadiah, 2011) and photo-based open-ended queries (Prebensen, 2007). Each respondent was required to rank photos from different DI categories.

Regarding the second section of the interview guide, a semi-structured approach emerges. With the aim of answering to the third research question, more concretely “What are the characteristics, dimensions and perceptions of the Alqueva Lake as an emerging LDA?”, seven open-ended questions were put to all respondents. The purpose was to elicit the participants’ opinions about lake tourism and the Alqueva Lake as a LDA and comparison across them. Data were collected through tape-recorded interviews and content-analysed using a Web Qualitative Data Analysis software – WebQDA (Souza *et al.*, 2011).

In terms of content-analysis procedure, a structural coding method was used (Namey *et al.*, 2008; Saldaña, 2009), based on organizing the data around the research questions. Discrete question was assigned to a code and simultaneously to a set of questions that comprised a conceptual domain or theme. In total seven structural codes were created, each one with sub-codes. The analysis here used a deductive approach, since the aim was to retest existing data in a new context and also to test categories and sub-categories.

However, a second level of analysis was required since the study was not only descriptive, but also explorative. Through a richer descriptive coding, but now having the question-based categorization (seven structural codes) as units of analysis, it was possible to freely identify basic topics or ideas. These units of analysis were read and descriptive codes started to emerge from what exactly the respondents said about what was asked. Subsequently, themes arise as a way to bring meaning and identity to the data, and also to unite a large body of data that may otherwise be unrelated (DeSantis and Ugarriza, 2000). In further stages of this coding process and theme development it was possible to look at certain theoretical questions more specifically, mainly related to lake tourism as a research field.

As a result of a more inductive approach, five themes emerged from these items (e.g. “awareness of the value of resources”; “natural resources”; “cultural resources”). The

goal here was to mix deductive and inductive approaches to content analysis.

In order to conclude the open-ended questions analysis, the frequency of attributes that describe the Alqueva Lake as a LDA for the respondents was counted. To code the data and count the words, a ‘codebook’ was conceived to track and define all the dimensions and attributes related to LDA, specifically applied to the Alqueva Lake. This ‘codebook’ was based on Rodrigues *et al.*’s (2015b) classification.

7.4 Findings

It seems reasonable at this point to recall the goals of the study. Firstly, to assess if a prior list of image attributes related to LDA capture the professionally involved stakeholder’s perceptions with this type of destination. Secondly, to generate new image attributes specifically related to LDA. Thirdly, a starting point for apprehending the concept and characteristics of lake tourism and LDA, through the case of the Alqueva Lake. The results are presented based on the different techniques that were used to collect and analyse data: checklist, free-elicitation, photo-elicitation and open-ended questions. After this, the conclusion pulls the observations together.

7.4.1 Checklist Technique

The structured approach of this interview involved a list of attributes related to LDA classified according to nine image dimensions (Beerli and Martín, 2004). In order to assess the applicability of these items, two levels of assessment were developed: (i) if the items are important for image formation of a LDA, and (ii) if those items described the Alqueva Lake as a LDA. According to the respondents most of the items on the list were judged to be important for LDAs.

The findings suggest that the image formation of a LDA is deeply rooted in the development of a lake for tourism purposes which comprises the lake itself as a natural resource but also the surrounding region. The image attributes are related to nautical activities (e.g. “houseboating”, “fishing”), along with activities at the surrounding region (e.g. “themed events”, “organized tours”). The same occurs with image attributes associated with infrastructures on the lake itself (e.g. “marinas”, “ports”, “public

ramps”) along with the territory where the lake is located (e.g. “rural houses”, “restaurants and cafés”, “visitor centres”). Two additional observations emerge: (i) the “quality of the lake water” is definitely one of the most relevant attributes for LDA. This supports the idea that any strategy for image formation of an LDA is deeply rooted in an integrated lacustrine management and development approach; (ii) in terms of the nature of destination image of LDA, the existence of psychological attributes most linked with the atmosphere of the lake (e.g. “hospitable atmosphere”, “picturesque and traditional”, “friendly and family-oriented”).

The findings from checklist technique also reveals that the image attributes that best describe the Alqueva Lake are associated with natural and cultural resources (e.g. “local dishes/gastronomy”, “castles, fortress and fortifications”, “historical villages”, “landscape”), and atmosphere of the lake (e.g. “picturesque and traditional”, “peaceful, quiet and relax”, “hospitable atmosphere”, “presence of local people”). This result seems to demonstrate that this lake has potential as an LDA.

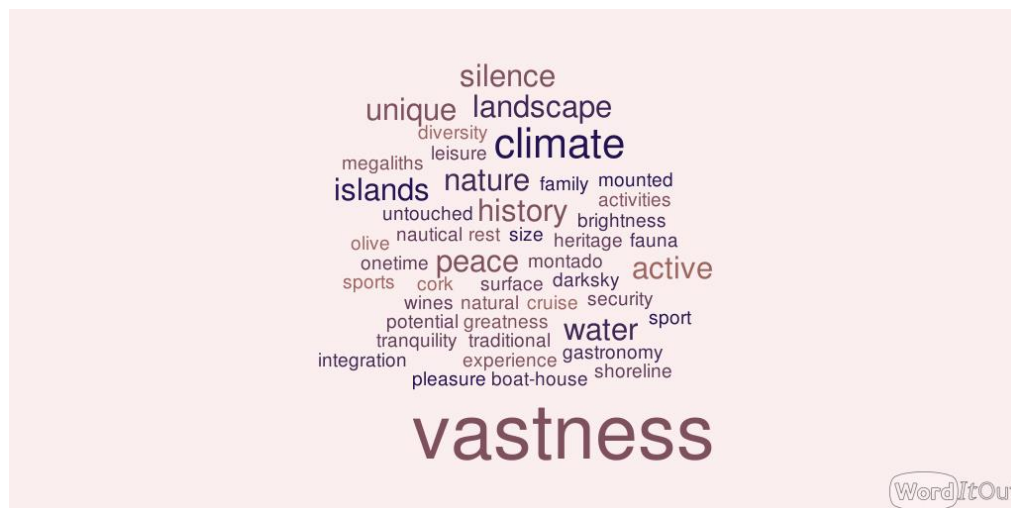
7.4.2 Free-Elicitation and Photo-Elicitation Technique

In order to respond to the first and also second goal the outcomes of these two techniques are presented in word clouds as a visual representation of text and pictorial data in a free format.

First, through the free-elicitation technique, respondents were able to provide descriptors of LDA, specifically the Alqueva Lake as the illustrative case. Data analysis consisted of using the word cloud, particularly the frequency type, where cloud size represents the number of times that an attribute (keyword) has been applied to a single item. Here the image attributes extracted were salient to the respondent rather than imposed by the researcher or inferred by the results (Reilly, 1990). Three main considerations were brought out from the word cloud in Figure 7.1: at a first glance attributes were depicted from the functional to psychological continuum (e.g. “climate”, “islands”, “landscape”, “shoreline”, “heritage” vs “vastness”, “silence”, “diversity”). Secondly, it was curious to note that the attribute “vastness” was the most cited by the respondents since it refers more to feelings and sensations associated with the lake, in particular the landscape as a resource. This seems to be in line with the idea of ‘waterscape’ as the interpretation of what is perceived from a lake landscape with

different senses (Tuohino and Pitkänen, 2004). Thus, this attribute is deeply linked with the surface of the lake since it is the biggest man-made lake of Western Europe. Lastly, and corroborating the results from previous phase, the depicted attributes reflect the conceptualization of lake tourism. Some of them are linked with the lake itself (e.g. “water”, “shorelines”, “islands”, “houseboating”) and others associated with the territory (e.g. “landscape”, “nature”, “history”). In conclusion, this word association technique gave more attributes related more to the atmosphere dimension of image (Beerli and Martín, 2004) amongst the respondents.

Figure 7.1 - Items with Potential Influence on Image Formation of LDA Generated By Free-Elicitation Technique



Source: Generated by WordItOut accessible at <http://worditout.com/>

As explained before, in a more photo-based approach with the **photo-elicitation technique**, five categories were used to represent image dimensions of LDA (Rodrigues *et al.*, 2015). Figure 7.2 was developed from the most ranked photos together with the respondent’s descriptions. Overall the photo elicitation results are entirely in line with the results from free-elicitation technique. The consistent presence of water in the landscape evokes feelings and memories that could be used when promoting the Alqueva Lake. A final remark is reserved for items such as “experiences”, “activities”, “nature” and “nautical”, meaning that experiencing the lake through nautical activities is of utmost importance when promoting this resource.

Figure 7.2 - Examples of Photos that Best Portray the Alqueva Lake as an LDA per Category with the Respondents' Description (Photo Elicitation)



1A



7A

NATURAL RESOURCES: Lake surface, horizon, lake overview, landscape, vegetation, flowers, lake topography, sunflower, island, nature, global picture of the lake; water, immensity, nature, flora, fauna, freedom, natural environment, lake, birds, trees on water, tranquillity, birdwatching, biodiversity.



7C



6C

ACTIVITIES AND RECREATION: Water, sports, nature, nautical tourism, boating, activities, experiences, canoeing, modernity, boat cruises, activities, experiences, immensity, houseboating, water, lake.



1D



7D

CULTURE AND HERITAGE: Water, history, heritage, lake, ruins, culture, new reality, territory with history, castle, lake integrated with history, past, culture, tradition, traditional singing (“cante alentejano”), world heritage, cultural heritage, history.



2E



6E

ATMOSPHERE: Tradition, traditional crafts, natural ambiance, local activity, picturesque, artisanal fishing, authenticity, agriculture, culture, watermills, water, industrial heritage, history, landscape and territory, lake history.



5B



2B

INFRASTRUCTURES: Lake, marina, nautical infrastructure, dynamism, modernity, experiences, boats, nautical tourism; wine and gastronomy service, heritage.

Source: Official photos from the former DMO of the Alqueva reservoir (TGLA) with permission.

7.4.3 Open-Ended Questions

The following are the main results of the open-ended questions, which aimed to observe characteristics and dimensions of lake tourism and LDAs, particularly the Alqueva Lake, and the attributes that potentially influence this type of destination. As explained above, these findings derived both from a qualitative and quantitative content-analysis approach. In fact, there was an effort to understand not only the manifest (e.g. counting words), but also latent content data. The inferences and deductions presented here intend to be valuable primarily as end-products and, secondly as entry points for further study. The results presented are aligned with the three interview research questions and the domains of inquiry respectively. However, due to the great amount of data, a more ‘focusing strategy’ is needed (Saldaña, 2009) in order to select a limited number of various ideas that emerge from the open-ended questions. The observations are based on key ideas extracted from destination image and lake tourism literature review.

1. *Lakes as a resource-based tourism attraction demands high levels of management and coordination between users* (Cooper, 2006). The items extracted from the data clearly indicate that the lack of a strong destination management organization and a coordination level are meaningful and serious weaknesses of this lake which will definitely influence the image formation process.
2. *Every lake-destination area will have its own unique characteristics and potential for development* (Erkkilä, 2006:220). According to Echtner and Ritchie (1993) the responses to open-ended questions provide more holistic and psychological attributes and allow unique characteristics of the destination under study to emerge. The biggest possibilities and pull factors in the Alqueva Lake were seen to be “nature”, “peace”, “tranquillity”, “landscape”, “heritage”, “local people”, and “traditions”. A commonly mentioned aspect was that scenic beauty is deeply based on a balanced integration between water, landscape, culture and sky. The dam’s construction has given rise to a totally new landscape, as land now has water that didn’t exist. Similarly, the responds also brought out several times the unique characteristics of the night sky with a very low level of light pollution. The fact that the Alqueva Lake is certified by UNESCO and UNWTO

as a Starlight Tourism Destination was constantly pointed out. In sum, it seems that the unique selling proposition of this lake is grounded on its natural and cultural resources. However, the weakness of the lake is strongly associated with the lack of supply, infrastructures, information, signage, activities, events etc. As a respondent said *“the supply is still small and lacks a regional strategy (...) hard work is still needed in order to claim the lake as a true destination”* (R1). Interestingly, the respondents share the idea that different products and experiences should be developed around the lake. In fact, due to a surface area of 250 km² and the value of its resources, a concept of lake experience product should be developed (e.g. active tourism; megalithic heritage, riparian villages) as advocate by Konu *et al.* (2010). For them, the lakes should be seen as a resource-base for the development of specific tourism beneath it.

3. *“As for lake tourism, destination marketing has only barely started”* (Tuohino, 2006:101). This idea is related to the third research question of the interview *“What is the promotion strategy for the Alqueva Lake as an LDA? The goal here was to identify if there was any strategic purpose for this lake, considering that it is at the very beginning of the life cycle model. This is considered to be an important factor in order to identify the characteristics and dimensions of the Alqueva Lake. The analytic process brought out two main topics: information about the strategy and extracting elements that might contribute to differentiate the Alqueva Lake as a LDA. The purpose was to help the DMO to find a suitable and effective positioning for this area in the near future.*
4. A final comment to the open-ended questions in a more quantitative analysis. The frequencies of attributes in each category and sub-category which were used to describe the Alqueva Lake as an LDA were counted. Some illustrative examples are the following: *“surface”* of the lake (biggest reservoir in Western Europe); *“Dark Sky Reserve”* (certified as a starlight destination) and *“stargazing”* as an important activity; *“access roads”* to the lake (the accessibility in terms of roads is good, but in terms of transports it is bad); *“boating”, kayaking”* and *“houseboating”* (there are some nautical activities in the lake, but very scarce yet considering its potential); no *“events”* or *“sport competitions”*; *“culture”, “heritage” “gastronomy and wine”* undoubtedly

relevant image attributes; “lakeside villages” due to its importance to the lake; and, a final reference to more psychological attributes relate to the atmosphere of the lake, namely “quiet, peaceful and relaxing”, “active tourism” and safety”. On the contrary, attributes as “lake beaches” and “nautical schools” or “hotels” were cited mainly because they simply do not exist on the lake and should; others such as “marinas”, “berths and piers”, “nautical centre”; “and “public ramps” were cited. However, when the attribute is contextualized it becomes evident the lack of these nautical infrastructures on the lake.

7.5 Conclusions and Implications

The results here obtained confirm the existence of a particular type of tourism based on natural or artificial lakes that takes place not only on the lake itself, but also in the surrounding region. Considering the importance that image as a strategic tool has for the development of destinations, particularly in the very beginning of their life cycle, conceptualizing this type of tourism reinforces the need to develop an image measurement scale more adapted to lake-destination areas. In fact and in line with other researchers’ conclusions (Rolo-Vela, 2009), the findings confirmed that although there are universally important image attributes, other attributes are only relevant for specific types of tourism. In fact, such an image measurement scale could be used as a tool for conceiving a management model for LDA, considering their particularities as the content analysis results based on the case of the Alqueva Lake have revealed.

Based on Beerli and Martín’s classification (2004), the findings also show that different techniques gave similar types of attributes more related to atmosphere as an image dimension (e.g. “peaceful and relaxing”, “security”, “immensity”) and more attribute-based image (e.g. “landscape”, “nature”, “water”, “activities”) more related to other dimensions (e.g. activities, natural resources). These results were combined with open-ended questions where the respondents had the opportunity to better explain their opinions. This is considered to be an advantage of employing various techniques in obtaining image attributes as a first step in analysing images. Additionally, photo-elicitation exposed attributes regarding atmosphere, but also more objective attributes, while the free-elicitation showed more tangible types of image dimensions.

As a result of the qualitative data collection phase, mainly from checklist technique, the applicability of 44 image attributes that potentially influence the image formation of LDA was assessed. This set of items includes both functional-psychological and attribute-holistic type of images and several image dimensions. Simultaneously, a set of 39 variables that best describe the Alqueva Lake as an LDA was obtained. Some managerial implications concerning the promotion and positioning the LDA should be outlined. One of the most important challenges when promoting an LDA is to recognize its strengths and weaknesses. A qualitative study such this can help to explore more the complexity of images, especially in the case of destinations that are at the very beginning of the life cycle, such as the Alqueva Lake. An image assessment study in this stage might contribute to maintain or reinforce the strengths and improve the attributes where main weaknesses were detected.

A more structured methodology applied now to tourists will allow in the future to recognize if the perceived image of a LDA, the Alqueva Lake in this case, coincides or not with its projected image according to the stakeholders. There is no doubt that knowing the perceptions and motivations is fundamental in tourist decisions and is crucial in the formation of a DI (Correia and Crouch, 2003). Finally, future research should be directed towards a reliable scale of image measurement for LDAs. The line of action should strategically enhance the image, positioning and competitive advantage of such types of destination, demanding image studies as a precondition of further decisions, and based on the concept of Lake Wellness product (Konu *et al.*, 2010).

Acknowledgments: The authors would like to thank all the Respondents for their time and insights, to the former regional DMO for the Alqueva Lake (TGLA) and the photographer Luis Matos for their permission to use the official photos of the lake.

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CHAPTER 8

**LAKE-DESTINATION IMAGE ASSESSMENT: THE CASE OF THE
ALQUEVA LAKE, PORTUGAL**

(PAPER 7)

LAKE-DESTINATION IMAGE ASSESSMENT: THE CASE OF THE ALQUEVA LAKE, PORTUGAL

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Abstract

Although lake tourism is a sub-field of tourism studies, and despite the fact that destination image (DI) provides a competitive advantage for lake-destination areas (LDA) this topic remains scarcely studied in tourism destination marketing. Therefore, to enhance the understanding of the nature of lake-destination image (LDI), a set of image variables that create the image of this type of destinations was proposed. The measurement model is based on five image dimensions: “natural resources”, “infrastructures”, “tourist leisure and recreation”, “culture and heritage” and “atmosphere”. It was tested at the newly-formed Alqueva Lake, the biggest man-made lake in Europe, located in the Alentejo region, Portugal. A sample of 500 visitors at the Alqueva Lake was considered. The empirical validation of the conceptual model supports the research hypothesis. The destination image of the Alqueva Lake as an LDA was then assessed through an attribute-based image (ABI) and photo-based image (PBI) approach. The image dimensions are manifested in the ABI and PBI. The “atmosphere” image dimension is the most often manifested in both approaches. The influence on the overall image was also assessed. The research findings contribute to a better understanding of which image factors are important for LDI formation, in order to improve the competitiveness of the lake-destination area. Finally, the implications and limitation of the current study are discussed and some directions for future research analysed.

Keywords: Destination image (DI), lake-destination area (LDA), lake-destination image (LDI), attribute-based model, photo-based model, SEM, Alqueva Lake.

¹⁴ This is an Author's submitted manuscript to Tourism Geographies. Under submission.

Paper status:

This Paper was presented at the 6th *Advances in Tourism Marketing Conference*, 8-10 September 2015, Joensuu, Finland, under the title 'Lake-Destination Image Assessment: the Case of the Alqueva Lake, Portugal'.

8.1 Introduction

Over the past forty years of research, destination image (DI) measurement has been mostly focused on the 1980s and 1990s on a geographical scope, with North American and European countries prevailing (Pike, 2002). However, other countries gradually started to be included in DI studies. Simultaneously, a new trend emerged in the 2000s when the DI of non-traditional entities such as regions (Kastenholz, 2002; Silvestre and Correia, 2005), cities (Sahin and Baloglu, 2011), resorts (Alcañiz *et al.*, 2009) or even events (King *et al.*, 2012) started to be assessed. It was a shifting focus that marked the path of DI research within an evolutionary perspective (Rodrigues *et al.*, 2012) from traditional objects of DI research like countries to non-traditional entities (Stepchenkova and Mills, 2010). Framed by this trend, DI of specific types of tourism and destinations also started to be investigated such as mountain tourism (Silva *et al.*, 2013), gaming tourism (Kneesel *et al.*, 2010) or rural-cultural excursion destinations (Rolo-Vela, 2009).

Even so, specifically regarding lake tourism as a recent form of tourism (Hall and Härkönen, 2006), destination marketing and destination image studies have barely started (Tuohino, 2006). Scarce research has been published related to this new academic field. As examples, there is previous research focused on lake landscape representations, particularly the Finnish lakes, in advertising material (Pitkänen and Vepsäläinen, 2006); the potential of some LDAs, such as the case of Ostrada-Elblag Canal in Warmia and Masury lakeland region, Poland (Furgala-Selezniow *et al.*, 2006) or the development of lake tourism in the Netherlands (Goossen, 2006). To date and particularly related to destination image, it is worth mentioning the only studies published in this field (Tuohino and Pitkänen, 2004; Tuohino, 2006). The authors conclude that assessing DI, in this case pictorial image though the use of photos is crucial for lake tourism marketing since it allows the transformation of a neutral landscape into a meaningful experience. In other words, the assessment of lake images allows us to add meanings to the lakes, justifying why they are so important for lake tourism development, especially in the case of emerging LDAs. Specifically, the field of research in this study took place in the Alqueva Lake, the biggest man-made lake in Europe, an emerging destination in Portugal. Thus, a more general purpose of this research is to contribute to a theory building process regarding lake tourism as a recent academic field.

Additionally, over the last forty years of DI research, several topics have been investigated (Gallarza *et al.*, 2002). This study focuses on the nature of DI, aiming to clarify its dimensions and components in order to offer a structure that can be applied regardless of the research context. An analysis of the literature review (Rodrigues *et al.*, 2012) shows that few studies were found in terms of reliability of image measurement scales (Baloglu and McCleary, 1999; Beerli and Martín, 2004; Echtner and Ritchie, 1993). Beerli and Martín (2004) are worthy to mention indicating that the lack of a universally valid and reliable scale for image measurement led to the proposal of a frame incorporating every aspect of a destination that could be used as an instrument of measurement.

Therefore, to enhance the understanding of image nature of a new field such as lake tourism and a recent type of LDA as the Alqueva Lake, a structural approach based on a set of image dimensions and items that create the image of this type of destinations (LDAs) is proposed. This set was grounded on Beerli and Martín's scale (2004) mix with lake destination theory (Ryhänen, 2001) to explore and assess LDI (Rodrigues *et al.*, 2015a), integrating five image dimensions: "natural resources" (NT), "infrastructures" (Inf), "tourist leisure and recreation" (TLR), "culture and heritage" (CH) and "atmosphere" (Atmf). Thus, the first goal is to define the LDI dimensions under study that might integrate an image scale for LDAs in the future.

The second goal is to explore the relationships between constructs. The concept of DI lies at the very centre of multi-item constructs (e.g. Ahmed, 1991; Embacher and Buttle, 1989; Gartner, 1986, 1989; Gartner and Hunt, 1987), where the consumer is assumed to evaluate the destination attribute by attribute. Concurrently, the rationale that imagery is also a form of representing information in working memory based on sensory information (MacInnis and Price, 1987) through the use of pictures, which are vital to successfully create and communicate an image of a destination (MacKay and Fesenmaier, 1997) was adopted. This process of storing information based on the use of images facilitates tourist evaluations of a destination by reducing the set of attributes considered.

The destination image of the Alqueva Lake as an LDA was then assessed through an ABI approach enhanced by the addition of a PBI approach. The influence of pre-defined image dimensions in both ABI and PBI was then tested. Finally, the influence on the

overall image was also assessed in this model. To date, an exact definition of overall image has been elusive and researchers have defined it in different ways. Additionally, a discussion of lake tourism definition is also outlined.

Based on this, the Paper is structured as follows: first a literature review of destination image, lake tourism and the main constructs involved in the conceptual model. Next, the results of testing the model using SEM analysis are presented, the findings are discussed and some theoretical and managerial implications are outlined. Finally, a discussion of study limitations and suggestions for future research are presented.

8.2 Literature Review

The theoretical bases for the main constructs of this study are examined in this section. A review of destination image, dimensions and measurement is presented, followed by the lake tourism topic.

8.2.1 Destination Image: Conceptualization, Dimensions and Measurement

After reviewing the literature most relevant to this subject, many contributions to DI concept have come to light since the 1970s. This stage began with an analysis of fundamental definitions of DI found in the literature between the 1970s and 1990s (Rodrigues *et al.*, 2012). Terms such as “organized representations”, “sum of beliefs, ideas”, “complex combination”, “overall impression or attitude”, “visual or mental impression” have been used to define it. More recently, in the 2000s, a great number of researchers still agree that image is an “overall impression” or a “combination”. For Murphy *et al.* (2000: 45) it is a “sum of associations and pieces of information”; a “manner in which the perceptions of numerous individual attributes are integrated” (Boo and Busser, 2005: 56), an “interactive system of thoughts and opinions” (Tasci *et al.*, 2007: 200); an “overall perception” or a “multi-dimensional phenomenon” (Martín and Rodríguez del Bosque, 2008: 265); an “interactive construct” (King *et al.*, 2012: 6) and, finally, a two-sided definition as a “a combination of what is communicated by a destination and what is understood by the tourists” (Rolo-Vela, 2009: 419). DI, is definitely, multidimensional (e.g. Etchner and Ritchie, 1993; Baloglu and McCleary, 1999), an ‘umbrella construct’, a kind of catch-all concept “of several theoretical

categories that continuously appear in the literature” (Rodrigues *et al.*, 2012: 138). Some authors have even highlighted the misunderstanding between DI construct and others, such as brand image (Tasci *et al.*, 2007; Tasci and Kozak, 2006).

The analysis of the DI concept unquestionably requires examining the nature of the concept (Martín and Rodríguez del Bosque, 2008) or its structure (Boo and Busser, 2005). More concretely, it is necessary to distinguish the main streams of research regarding this sub-field of DI studies. In the beginning of the life cycle of the DI construct (1970s and 1980s), the cognitive component was first revealed as the most important dimension in the composition of DI (Crompton, 1979; Gartner, 1986). Moreover, within the cognitive component there were functional elements of DI that prevailed (Gartner and Hunt, 1987; Gartner, 1986) and it was only in the 1990s that more psychological attributes started to be assessed (e.g. “relaxing atmosphere” in Fakeye and Crompton, 1991). This tendency to insert more psychological elements was embraced by Echtner and Ritchie’s (1993) three-dimensional continua approach. They grouped destination image attributes into three continuums: functional/psychological, common/unique, and holistic/attribute-based axes. Echtner and Ritchie’s (1993) dimensions of DI was, in fact, one of the most popular typologies in DI research. However, these authors did not offer an extensive list of image attributes and many studies such as Choi *et al.* (2007), Leung *et al.* (2011), and Tang *et al.* (2009) have even used their own image classification rather than Echtner and Ritchie’s schema (Hsu and Song, 2013).

In this sense, this study advocates that Beerli and Martín’s (2004a, 2004b) work provides more detailed information about destination image attributes. The authors reviewed DI attributes in existing measurement scales and proposed a framework that includes every aspect of the destination. The novelty in Beerli and Martín’s (2004) classification is that the image scale is supported by destination development theory (for more detailed information on this topic see Haugland *et al.*’s article, 2011). In other words, this means that DI theory is thoroughly based, for instance in contributions such as Buhalis’ (2000: 97) formulation, for whom “destinations are amalgams of tourism products, offering an integrated experience to consumers” or Murphy *et al.* (2000) who posits that destination product integrates accommodation, food, transportation (service infrastructure) and natural, cultural and social resources (destination environment). In this sense it seems reasonable to assume that image attributes are consistently a

consequence of destination development level and the life cycle where it stands. Therefore, Beerli and Martín's image scale classified attributes into nine categories or dimensions ("natural resources"; "general infrastructure"; "tourist infrastructure"; "tourist leisure and recreation"; "culture, history and art"; "political and economic factors"; "natural environment"; "social environment"; and "atmosphere of places").

Previous studies have applied this classification to measure destination image (e.g. Hsu and Song, 2012, 2013; Pan *et al.*, 2011; Phau *et al.* 2010; Philips and Jang, 2010). In conclusion, DI is constituted by different components or dimensions, which are perceived differently by tourists and deserve special attention for marketing positioning strategies. Thus, an analysis of image based on their components should be then investigated (Ahmed, 1991). Thus, the present study adopts an image scale more based on dimensions or components in order to assess the image of LDA. The reason is to better understand the level of development of this particular destination, especially because it is at the very beginning of its life cycle.

In terms of measurement of DI construct over the decades, an attribute-intensive directive has prevailed in data collection and data analysis techniques. This approach refers "to the manner to which the perceptions of numerous individual attributes are integrated to become the image on an entity" (Boo and Busser, 2005: 56). Since DI is a multi-attribute construct its measurement has been focused on multi-attribute-based images. In fact, forming an image is a highly complex process, mainly due to the composite nature of touristic products. This particularity of tourism products and consequently of its image, has resulted in several attempts to measure DI that started in the 1980s with very interesting results (Goodrich, 1978; Haahti, 1986).

Therefore, multi-attribute measurement approach soon emerged based on item-by-item evaluation. Tourists are assumed to assess the DI attribute by attribute with the ability to measure 'objective reality' (Keaveney and Hunt, 1992). Scott *et al.* (1978) were the first to conclude that, from a marketing viewpoint, a state (destination) like any other product is capable of being evaluated along with a number of attributes. This work characterizes the beginning of the multi-attribute approach applied to destination as a consumer product.

This line of thought was continued by Gartner's work in the 1980s, when he stated that "even though image may not fluctuate a great deal over time, components of image may

fluctuate greatly” (1986: 638). This was considered as a millstone in DI research for the reason that researchers were able to measure image ratings of more tangible and intangible attributes (for a list of attributes see Beerli and Martín, 2004; Etchner and Ritchie, 1991; Gallarza *et al.*, 2002). In fact, it became important to assess DI based on its attributes, which belong in turn to broader dimensions, where “differences in meaning, number, and importance of dimensions may occur” (MacKay and Fesenmaier, 1997: 538).

Based on this, DI measurement has been a valuable study field for attribute-based approaches informed by quantitative methods, multivariate and bivariate. According to Pike’s (2002) review of 142 papers, the majority of DI studies preferred to measure DI by using Likert-type scales. In this sense and due to the fact that “there is not yet an accepted theory to replace the multi-attribute models” (Pike, 2002: 542), it seems reasonable to settle *attribute-based image* (ABI) as a theoretical extension underpinned by DI as the main construct (Rodrigues *et al.*, 2012), mainly grounded on information-processing theory.

Nevertheless, the inconsistencies between conceptualization and operationalization of the construct have been continuously pointed out (Beerli and Martín, 2004; Etchner and Ritchie, 1991; Gallarza *et al.*, 2002; Tasci *et al.*, 2007). Based on the complex nature of DI as a construct, new measurement approaches started to emerge in the 1990s.

As a consequence of a new cycle in terms of DI theorizing, alternative methods of measuring DI soon came to light. New methodological procedures based on qualitative methods (Jenkins, 1999; Ryan and Cave, 2005) were proposed, such as the example of free-elicitation technique (Dann, 1996; Reilly, 1990) or visual-based studies (Jacobsen, 2007). These new theories and perspectives on DI research, which arose in the 1990s and were strengthened in the 2000s, contribute to exploring new ways of communicating image attributes, such as the visual or pictorial element.

MacKay and Fesenmaier’s (1997) work was a pioneer study which drew attention to the contribution that visual representations of a destination might have in creating images. Soon, several photo-based studies emerged, employing photographs in DI measurement (e.g. Fairweather and Swaffield, 2002; Jacobsen and Dann, 2003; Choi *et al.*, 2007 and, more recently Hsu and Song, 2013). One of several possibilities for employing photographs is to include them into questionnaires and/or personal interviews and might

be used as stimuli “to evoke responses of assumingly greater validity than those induced by traditional verbal interviews/or questionnaires” (Jacobsen, 2007: 241). In this sense and due to the proliferation of visual studies in DI research, it seems reasonable to settle *photo-based image* (PBI) as a theoretical extension underpinned by DI as the main construct (Rodrigues *et al.*, 2012), but mainly grounded on imagery processing-theory (MacInnis and Price, 1987), instead of information processing-theory.

8.2.2 Lake Tourism and Lake-Destination Image

Given the importance of lake tourism as a recent sub-field of tourism studies, a better understanding of the image attributes that are most relevant for the image formation of an LDA is vital. It is important to note that lakes are open water bodies, dams or reservoirs which might represent a valuable resource for a variety of human activities. In addition, lakes might also become an important resource for tourism development, based on their landscape features, flora, fauna and cultural attractions. Tuohino and Pitkänen (2004) suggested that a lake environment is a neutral landscape and only becomes meaningful when tourists formed images and feelings about it in their minds. Ever since, researchers have searched for the meaning of lake tourism and more specifically the image creation process. Ryhänen (2001) stresses the importance of forming a lake-destination image (LDI) when tourists decide to travel to a lake-destination area. However, for Erkkilä (2006: 207) marketing LDA is more complicated, “requiring careful attention to all stakeholders’ needs and obtaining adequate information to make sound decisions”. Nevertheless, lakes are seen as a “certain geographical entities” (Hall and Härkönen, 2006: 5), a kind of “a functionally compact regional whole” (Ranade, 2008: 543), which might help to define the marketing strategy and, particularly, the process of image creation for this type of destination.

Although insufficient, the literature reveals that the attributes related to LDAs are strongly tied to the water intertwined with outdoor activities, as expected. A study by Sievänen *et al.* (2006) about Finnish lakes and Hall and Stoffels (2006) about New Zealand lakes show attributes, mainly functional, based on water activities (e.g. swimming, boating, fishing, canoeing, sailing, boat cruises), but also on land activities strongly linked to the surrounding nature (e.g. sightseeing, camping, bicycling).

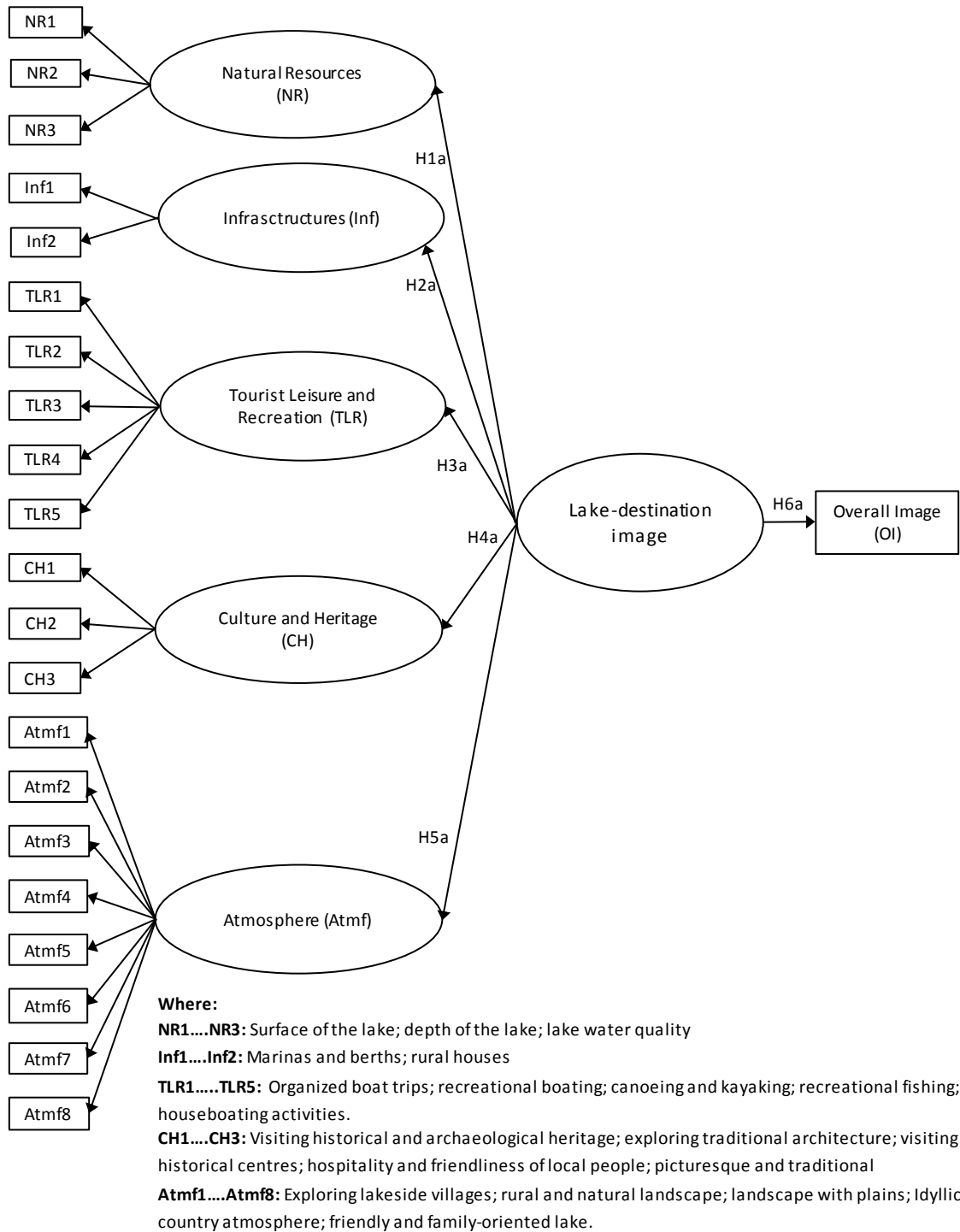
Various, Erkkilä (2006) highlights more psychological attributes (e.g. relaxing, peaceful, closer to nature). However these studies were focused on a specific lake or a specific segment of lake tourism. Recently Rodrigues *et al.* (2015a) have introduced a combination of items specifically related to LDAs, depicted from textual and pictorial analysis of 40 lake descriptions and 124 photos. Factors or image dimensions such as: “natural resources”, “infrastructures”, “tourist leisure and recreation”, “culture and heritage” and “atmosphere” determine the structure of LDI. These dimensions were defined and grounded on Beerli and Martín’s scale (2004) mixed with lake destination theory (Ryhänen, 2001).

8.2.3 Study Framework and Hypothesis

The purpose of this study is to test two models of the formation of LDI in order to assess image dimensions and propose a set of image variables that creates the image of this type of destinations (LDAs). The models are based on two approaches, one grounded on a more common approach, namely the *attribute-based image* (ABI) approach and the other more grounded on new theories and methods of assessing DI, namely the *photo-based image* (PBI) approach as discussed in the literature review section. Their influence on overall visitor perceptions of the destination is also examined. Framed by a review of the existing literature, a research framework based on a two-model approach and corresponding hypotheses is now proposed.

The first hypothetical model (see Figure 8.1) consists of six latent constructs contributing to explain the destination image by means of a second-order factor analysis. The influence of the latent construct destination image on the overall image is also assessed, with H6. The analysis comprises in the first instance the definition of the best measurement structure for the five constructs (i.e. “natural resources”; “infrastructures”; “tourism leisure and recreation”; “culture and heritage”, and “atmosphere”). Once the second-order factor analysis was determined, the second step was to test how this destination image composed of five constructs may influence the overall image that tourists declared they possess about the destination.

Figure 8.1 - Proposed Framework of Lake-Destination Image Formation



Source: Own Elaboration.

8.2.3.1 Attribute-Based Image (ABI) and Photo-Based Image (PBI) Approach

Considering the scales that have been used in DI studies (e.g. Echtner and Ritchie, 1993; Baloglu and McCleary, 1999) Beerli and Martín's (2004) was considered reliable and valid (Rolo-Vela, 2009). Beerli and Martín (2004) reviewed DI attributes in

existing measurement scales and proposed a framework that includes every aspect of the destination. Previous studies have applied this classification to measure destination image (e.g. Hsu and Song, 2013; Pan *et al.*, 2011; Phau *et al.*, 2010; Philips and Jang, 2010). This scale made it possible to provide more detailed information about destination image attributes, based on components or dimensions. Therefore, this study adopts an instrument of measurement that was not based on the typically cognitive and affective image components, but instead on Beerli and Martín's (2004) classification of image dimensions that covers a wide range of aspects of a perceived image of a place. In the same line of thought, Rodrigues *et al.* (2015a,b) defined five image dimensions extracted from content analysis of text and pictures more related to LDAs ("natural resources", "infrastructures", "tourist leisure and recreation", "culture and heritage" and "atmosphere"). Ahmed (1991) also stated that an analysis of image based on their components should be investigated. Given this, the following hypotheses were tested:

H1a: Natural resources are manifested in the ABI of an LDA;

H2a: Infrastructures are manifested in the ABI of an LDA;

H3a: Tourist leisure and recreation are manifested in the ABI of an LDA;

H4a: Culture and heritage are manifested in the ABI of an LDA;

H5a: Atmosphere are manifested in the ABI of an LDA.

Apart from the attribute-based approach, image is also defined as a *gestalt* impression, the sum rather than its parts, a more holistic impression (Crompton, 1979; Gartner, 1986, and more recently Murphy *et al.*, 2000, Martín and Rodríguez del Bosque, 2008). Previous studies have concluded that overall impression is dependent on individual DI attributes (Baloglu and McCleary, 1999; Beerli and Martín, 2004). In this study, overall image (OI) refers to tourists' overall perceptions of a set of attributes of the Alqueva Lake as an LDA, which are in turn integrated into five image dimensions. Overall image can be calculated by a specific measure of the positiveness or negativeness of overall image perceptions (Baloglu and Love, 2005; Han *et al.*, 2009). Therefore, for this study:

H6a: ABI positively influences the OI of an LDA.

The second approach, photo-based image (PBI), is more grounded on new theories and methodologies of assessing DI as discussed in the previous section. Therefore, the second hypothetical model also consists of a second-order factor analysis aiming to explain the overall pictorial (photo) image of the destination. The same constructs were kept. However, this time the influence of each is measured by pictorial images in which tourists were invited to rank how this photo meets their perceptions about the construct to which this photo belongs. This second model that aims to measure photo-based image of the destination follows the same conceptual model of Figure 8.1 and the same hypothesis. (H1b; H2b; H3b; H4b; H5b; H6b)

8.3 Research and Methods

8.3.1 Study Site

The study is based on the case of the Alqueva Lake, a new resource that offers a naturally defined unit for tourism development since the reservoir started to fill up in 2002. Today it is the largest reservoir in Western Europe (surface area 250 km²; maximum depth 99m). Located in the south of Portugal, Alqueva Lake fulfils several functions as storage, water supply, hydroelectric power and irrigation, irrigation being important considering the fact that this dam is located in Alentejo, the driest and hottest region of Portugal. The Alentejo region is considered to be an exceptional part of an unspoilt Portugal, full of character, barely touched by tourism and steeped in history. This region is marked by nature and heritage, a vast landscape that varies considerably, from the open rolling plains of the south to the granite hills that border Spain in the north-east. With the construction of the Alqueva dam a completely new landscape has appeared since 2002. Where there used to be plains, roads and even villages there is now a considerable body of water known as the ‘Great Lake’, which crosses the border of Portugal and Spain (Rodrigues *et al.*, 2013).

8.3.2 Sample Design and Data Collection

A convenience sample of 600 Portuguese tourists was considered. Domestic tourism is the main market of Alqueva Lake. Sample selection was a result of combining the convenience method and the interviewer’s judgement. The questionnaire was personally

administered to each individual during the stay at the Alqueva Lake. Finally, 500 valid responses were obtained between August 2014 and February 2015, representing a sample error of 3.52% for a confidence level of 95.0%. It is important to bear in mind that the present image study is part of a multi-stage research aiming to assess the image of LDAs, in the case of the Alqueva Lake.

The questionnaire comprised five sections with 23 questions (structured and unstructured), broken down into 97 variables. Section A regarded visit characteristics (e.g., trip length, type of accommodation, sources of information, mode of transport); section B had a set of 39 attribute-based images depicted from previous stages of the research to assess the DI of the Alqueva lake as a multidimensional construct and measured on a five-point interval scale (1='not descriptive at all' and 5='very descriptive'); section C comprised photo ranking (Ye and Tussayadiah, 2011) where each respondent was required to rank photos from different DI categories, using a scale of 1 to 5, where 1 is the least representative and 5 is the most representative of the Alqueva Lake as an LDA and section E covered the socio-demographic profile of lake tourists.

8.3.3. Measurements and Data Analysis

First, the list of items assessed in this study were originally derived from previous studies, classified on a five-factor model corresponding to five image dimensions ("natural resources", "infrastructures", "tourist leisure and recreation", "culture and heritage", and "atmosphere") adapted from the qualitative research of (Rodrigues *et al.*, 2015a,c). This stage previously allowed us to determine the constructs under study. No special problems in relation to the content validity were identified based on the findings of the unstructured methodology. The attribute and photo-based image approach (ABI and PBI) were measured according to those five image dimensions. In addition, the overall image was assessed using five-point rating item by asking respondents: "*How would you describe the image that you have of...?*" (Baloglu and MacCleary, 1999).

The proposed model hypothesized that there were significant causal relationships among latent constructs. These casual relationships are represented in the path models explained in the previous section (Figure 8.1). Evaluation is based on a set of

observable variables that serve as indicators of latent variables, with the relationships between them being measured by CFA. Then a second-order factor analysis was performed to assess the structure of destination image where it was measured through declarations made about photos. Once the structure of the factor destination image was reached a SEM with only one path was drawn up to estimate the influence of the second-order factor analysis (ABI, PBI) on overall destination image.

Consequently, data analysis was performed in two stages. In the first stage, reliability analysis was conducted using SPSS (v.22) to evaluate the stability and consistency for measured items. In the second stage, based on Anderson and Gerbing's (1988) two-step approach, the current study assessed the adequacy of measurements using CFA. After this, the hypothesized relationships among study constructs were tested based on second-order factor analysis that integrated the different factors contributing to the formation of LDI. The second-order factor analysis was then undertaken to determine the appropriateness of considering the five image dimensions in models, attribute-and photo-based image. The adequacy of the individuals' items and the composites were assessed by measures of reliability and validity. Reliability of the measures was calculated with Bagozzi *et al.* (1999) Composite Reliability (CR) Index and Fornell and Larcker's (1981) Average Variance Index (AVE). Further, convergent validity was assessed from the measurement model by determining whether each indicator's estimated pattern coefficient on its posited underlying construct factor is significant (greater than twice its standard error).

Discriminant validity was then established where Maximum Shared Variance (MSV) and the Average Shared Squared Variance (ASV). Next, the evaluation of goodness-of-fit indices for the proposed SEM and testing hypotheses were performed by using Analysis Moment Structure (AMOS).

The next step was to cross-validate the final model on another sample drawn from the population to assess if the results are generalizable to both samples; in this case we split the database randomly and ran the same model in both samples, to ensure that the model measures what it is intended to measure.

8.4 Results

8.4.1 Visitor Profile

The socio-demographic and visit characteristics of Alqueva lake tourists are exhibited in Table 8.1. The majority of survey respondents were female (53.4%). Their ages ranged from 18 to 78 years with an average age of 37 years for both and had a high education level (45.2% had at least a university/college level). About 68% had a full-time job, and the largest percentage (49.2%) had a monthly income less than 2000€. When considering the visit characteristics, the majority were repeat visitors (59.1%); however a significant percentage were first-time visitors (40.1%). Among the survey respondents, the average visit length at the Alqueva Lake was lower than in the Alentejo region where the lake is located (2.8 vs. 5.3 days). This result seems to indicate that the Alqueva Lake might not yet represent the core of Alentejo's attractiveness, but adds value to the destination. Most of the respondents stayed at family and friends' house (25%) and rural tourism houses (24.4%), were travelling with family (44.6%), and had friends and family (43.8%) and internet (31.8%) as their main sources of information. The push and pull factors of this study are "enjoying holidays and leisure" mentioned by 37.2% of those surveyed, followed by other important reasons such as "walking, enjoying time with friends and family" (16.2%), "resting and relaxing near the lake" (9.2%), "exploring and visit new places, curiosity" (6.6%), "visiting family and friends" (5.4%), and "visiting the Alqueva Lake itself and Monsaraz" (3.2%). Additionally, more related to the pull factors, the majority of the activities during the respondent' visit were related to nautical activities (37.7%) for "boating, cruising and houseboating" and 17.2% for other activities such as "fishing or canoeing", followed by "visiting the surrounding region" (12.7%), "tasting local gastronomy and wines" (11.6%) and "photography" (6.1%).

Table 8.1 - Profile of Survey Respondents (Socio-Demographic and Visit Characteristics)

Socio-demographic		Variables	Frequency Percentage (%)	
Gender	Male		233	46.6
	Female		267	53.4
Age	Mean (male; female)		37.7; 37.9	
Education/Qualification	Primary school		35	7
	Secondary school		186	37.2
	University/college degree		226	45.2
	Postgraduate degree		51	10.2
Professional Status	Full-time job		338	67.6
	Retired		29	5.8
	Unemployed		49	9.8
	Self-employed		22	4.4
Monthly income	Student		51	10.2
	<2000 €		246	49.2
	2001€-3500€		118	23.6
	3501€-5000€		58	11.6
	5001€ - 8000€		21	4.2
	>8001€		27	5.4
Visit Characteristics			Frequency Percentage (%)	
Past experience	Repeat visitors		292	59.1
	1st time visitors		202	40.9
Visit length	Alqueva Lake (mean;mode)		2.8; 1	
	Region/Alentejo (mean;mode)		5.3; 1	
Accommodation	Family and friends' house		125	25
	Rural tourism houses		122	24.4
	Hotel		71	14.2
	Own house		48	9.6
	Rented house		47	9.4
	Tourist apartment		30	6
	Camping and caravanning		19	3.8
Sources of information	Resort		6	1.2
	Family and friends		219	43.8
	Internet		159	31.8
	Brochures and tourist guides		56	11.2
	Publicity in journals, TV and magazines		18	3.6
Travel companion	Travel agencies		14	2.8
	Promotions		11	2.2
	Family		223	44.6
	Partner		125	25
	Friends		123	24.6
Reasons/motivations (push factors)	Alone		18	3.6
	Organized tour		6	1.2
	1. Enjoying holidays and leisure		186	37.2
	2. Walking/enjoying time with friends and f		81	16.2
	3. Resting and relaxing near the lake		46	9.2
	4. Explore and visit new places; curiosity		33	6.6
Activities (pull factors) (*)	5. Visiting family and friends		27	5.4
	6. Visiting the Alqueva Lake itself and Mons		16	3.2
	1. Boating, cruising and houseboating		151	23.7
	2. Nautical activities (e.g. canoeing, fishing)		111	17.5
	3. Visiting the surrounding region		81	12.7
	4. Tasting local gastronomy and wines		74	11.6
	5. Photography		39	6.1

Source: Own Elaboration. (*) more than one activity was mentioned per respondent (n=636)

8.4.2 Attribute-Based Image Approach (ABI Model)

CFA was then used to test the measurement structure of the five constructs mentioned (i.e. “natural resources”, “infrastructures”, “tourist, leisure and recreation”, “culture and heritage” and “atmosphere”). A prior analysis of scale reliability was performed based on Cronbach’s alpha and item-total correlation (Bagozzi, 1989), in order to evaluate the consistency for measured items of each latent construct, which means identifying the final items and factors (image dimensions) underlying the LDI structure of the Alqueva Lake.

In this study, a total of 39 indicators (items) – eleven for “natural resources”, nine for “tourist leisure and recreation”, four for “infrastructures”, five for “culture and heritage”, and ten for “atmosphere” were included in the confirmatory measurement model of LDI. First, a confirmatory measurement model was used that specifies the posited relations of the observed variables in the latent construct, with the construct allowing intercorrelation freely estimated (Anderson and Gerbing, 1988; Joreskog, 1993). Thus, before testing the overall measurement model, unidimensionality of each construct was assessed. This procedure assures that each set of alternate indicators has only one underlying construct in common. Constructs with unacceptable fits were re-specified by deleting the indicators that failed to preserve unidimensionality of the measurement (Anderson and Gerbing, 1988). Measuring each construct individually and deleting unacceptable indicators results in a decrease in the number of indicators of the constructs. Hatcher (1994) suggested that an indicator’s standardized factor loading is non-significant, and that an indicator might be multifactorial if there are few normalized residuals greater than 2.00 in absolute value.

Therefore, eight indicators for “natural resources”, four indicators of “tourist leisure and recreation”, two for “culture and heritage”, and two for “atmosphere” were deleted because their standardized factor loadings were non-significant or when the factors correlated with different constructs simultaneously. The main difficulty present in the initial five-factor measurement model was that the infrastructure variables present either a very low explanation power or other variables related to the infrastructure construct load on different constructs. This means that the “infrastructures” factor did not have adequate loadings to warrant its consideration in the CFA. A four-factor instrument with

the resulting items based on four image dimensions was finally identified as the ideal solution, as shown in Table 8.2.

Table 8.2 - Confirmatory Factor Analysis of Attribute-Based Image (ABI)

Latent Constructs and description of observed variables (items)	<i>Item reliability</i>		
	Standardized Factor Loading	Standard Errors	C.R or t - value
F1 Natural Resources (NR)			
Surface of the lake (NR1)	0.791		
Depth of the lake (NR2)	0.791	0.083	14.65***
Lake water quality (NR3)	0.791	0.055	12.434***
F2 Tourist Leisure & Recreation (TLR)			
Organized boat trips (TLR1)	0.809	0.086	12.446***
Recreational boating (TLR2)	0.834	0.091	12.837***
Canoeing and kayaking (TLR3)	0.722	0.094	12.184***
Recreational fishing (TLR4)	0.541	0.097	9.746***
Houseboating activities (TLR5)	0.634		
F3 Culture & Heritage (CH)			
Visiting historical and archaeological heritage (CH1)	0.775	0.073	14.297***
Exploring traditional architecture (CH2)	0.785	0.072	14.445***
Visiting historical centres (CH3)	0.768		
F4 Atmosphere (Atmf)			
Exploring lakeside villages (Atmf1)	0.607		
Rural and natural landscape (Atmf2)	0.683	0.092	11.969***
Landscape with plains (Atmf3)	0.604	0.101	10.256***
Hospitality and friendliness of local people (Atmf4)	0.686	0.114	10.72***
Picturesque and traditional atmosphere (Atmf5)	0.764	0.112	10.903***
Calm and relaxed atmosphere (Atmf6)	0.777	0.112	10.717***
Idyllic country atmosphere (Atmf7)	0.725	0.119	10.695***
Friendly and family-oriented lake (Atmf8)	0.754	0.121	10.876***

*** $p < 0.001$

Source: Own Elaboration.

The adequacy of the four-factor measurement model was assessed by examining its goodness-of-fit indexes, its reliability and the convergent and discriminant validity of the constructs. The method of estimation used as maximum likelihood (ML) as the most common fitting function. The initial model did not offer a good fit, so following the recommendations of the model and always taking into account that changes should be reasonable from the conceptual point of view, some items were removed. In order to achieve an acceptable fit of the model a series of re-specifications were conducted (Anderson and Gerbing, 1988). As Table 8.3 shows, the overall goodness-of-fit indexes

showed that the four-factor model (ABI) had an acceptable fit with the data ($X^2=375.866$; $p=0.000$; $X^2/df=2.61$; $GFI=0.921$; $AGFI=0.895$; $PGFI=0.698$; $RMSEA=0.057$). All items were significantly loaded above 0.70 on their specified latent construct ($p<0.001$).

A variance extracted test was employed to examine the convergent and discriminant validity. The results showed that all the AVE were above the recommended cutoff of .50 (Fornell and Lacker, 1981). All the constructs exceeded the .50 cut-off. Furthermore, the average variances extracted for each latent factor exceeded the respective square correlation between factors, thus providing evidence of discriminant validity (Fornell and Lacker, 1981). Discriminant validity was established where MSV and ASV were both lower than the AVE for all the constructs. This indicates that the results of the tests were found to be satisfactory, confirming convergent and discriminant validity.

Table 8.3 - Reliability and Validity - Model I (Attribute-Based Image)

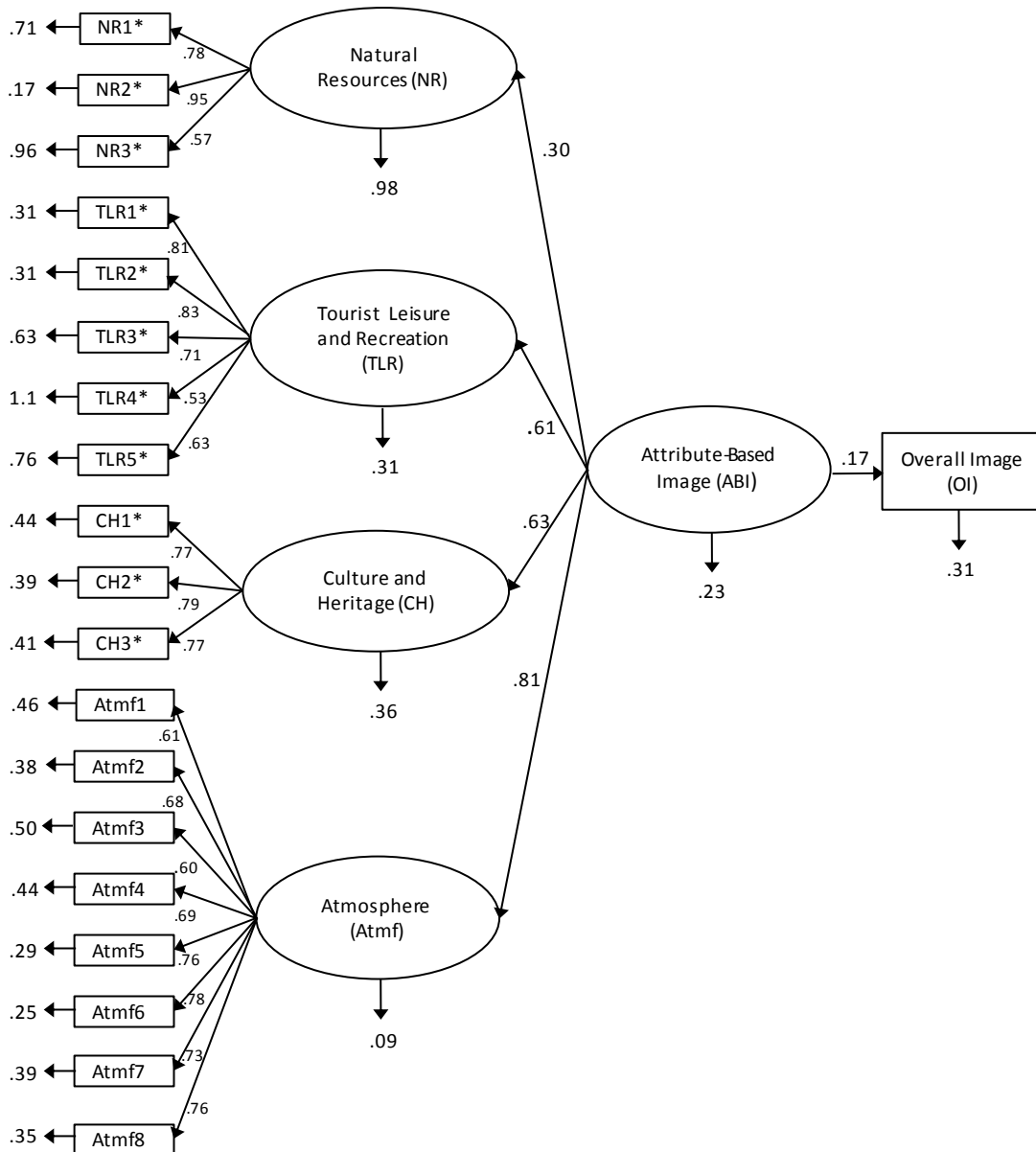
	CR	AVE	MSV	ASV	Atmosphere	Tourist, Leisure & Recreation	Culture & Heritage	Natural Resources
Atmosphere	0.886	0.500	0.265	0.182	0.703			
Tourist Leisure & Recreation	0.837	0.513	0.231	0.148	0.481	0.716		
Culture & Heritage	0.820	0.602	0.265	0.152	0.515	0.373	0.776	
Natural Resources	0.829	0.625	0.075	0.059	0.221	0.273	0.230	0.790
GOF Indexes	χ^2	P	χ^2/df	GFI	AGFI	PGFI	RMSEA	
Whole sample	375.866	0.000	2.61	0.928	0.895	0.698	0.057	
Test sample (n=233)	222.159	0.000	1.543	0.899	0.867	0.682	0.048	
Validation sample (n=267)	318.678	0.000	2.213	0.874	0.834	0.662	0.068	

Source: Own Elaboration.

The construct reliabilities for “atmosphere”, “tourist leisure and recreation”, “culture and heritage” and “natural resources” were 0.886, 0.837, 0.820, 0.829, respectively. These values exceeded the recommended threshold suggested by Bagozzi *et al.* 1999), indicating the internal consistency of items in each construct. Construct composite reliability, average variances extracted, and correlations for all latent variables are specified in Table 3. Therefore, the hypothesized measurement model is reliable and meaningful to test the second-order factor analysis and the path from ABI to overall destination image.

As the next step, a SEM was tested in order to determine the structure of LDI and if LDI, particularly ABI (attribute-based image) influences the overall image of the destination. Figure 8.2 shows the standardized model as estimated by AMOS.

Figure 8.2 - Standardized Estimated Hypothetical Model (Model 1/ABI)



Fit indices: $X^2 = 393.920$; $p = 0.000$; $X^2/df = 2.40$; $GFI = 0.921$; $AGFI = 0.899$; $PGFI = 0.719$; $RMSEA = 0.053$

Note: X^2 = Chi-square; GFI = goodness of fit; $AGFI$ = adjusted goodness-of-fit; $PGFI$ = parsimony goodness-of-fit; $RMSEA$ = root mean square error of approximation

* Please refer to table 8.2 for the name of the indicators.

Source: Own Elaboration.

Within the overall model, the estimates of the structural coefficients provide the basis for testing the proposed hypotheses. This study examines the structural model with four endogenous constructs (i.e. natural resources; infrastructures; tourist, leisure and recreation; culture and heritage and atmosphere) manifested on the latent construct (i.e. attribute-based image) in order to explained overall destination image.

The results of maximum likelihood estimation suggested that the model fitted the data well ($X^2=393.920$; $p=0.000$; $X^2/df=2.40$; $GFI=0.921$; $AGFI=0.899$; $PGFI=0.719$; and $RMSEA=0.053$). The overall model has a statistically significant value of chi-square test ($X^2=393.920$; $p=0.000$; $X^2/df=2.40$). $RMSEA$ (0.053) revealed an acceptable fit. Among other measures of fit, the absolute measure of fit ($GFI=0.921$, $AGFI=0.899$) and parsimonious measure of fit ($PGFI=0.719$) show the good coherence of the data.

All hypothesised relationships in this conceptual model are supported. The attribute-based image approach (ABI) set up the image dimensions or components that are relevant in LDI structure. Thus, the corresponding attributes specifically related to lake-destination areas were also determined. From this perspective, path hypothesis H1a (i.e., ‘natural resources are manifested in the ABI of an LDA’) is accepted because the standardized coefficient of “natural resources” to ABI is positive and statistically significant ($b=0.302$ $p=0.000$) suggesting that “natural resources” are manifested in ABI. Path hypothesis H2a (i.e., ‘infrastructures are manifested in the ABI of an LDA’) cannot be accepted because this factor did not have adequate loadings to warrant its consideration in the CFA. Path hypothesis H3a (i.e., ‘tourist leisure and recreation are manifested in the ABI of an LDA’) is accepted since this factor has a positive and statistically significant coefficient ($b=0.609$; $p=0.000$). Path hypothesis H4a (i.e., ‘culture and heritage are manifested in the ABI of an LDA’) is accepted because this factor also has positive and statistically significant coefficient ($b=0.629$; $p=0.000$). Path hypothesis H5a (i.e., ‘atmosphere is manifested in the ABI of an LDA’) may not be rejected since “atmosphere” is the most important factor explaining ABI with a positive and significant coefficient ($b=0.807$; $p=0.000$). Finally, path hypothesis H6a (i.e., ‘ABI positively influences the overall image of an LDA’) was supported with a positive and significant coefficient ($b=0.166$; $p=0.000$).

With respect to the importance of the variables in each factor, the “natural resources” construct is mostly explained by the ‘*depth of the lake*’ (0.95) item; the “leisure and

recreation” construct relies mostly on the items ‘*recreational boating*’ (0.83), ‘*organized boat trips*’ (0.81) and ‘*canoeing and kayaking*’ (0.71); the “culture and heritage” construct is explained similarly by all the items, ‘*exploring traditional architecture*’ (0.79), ‘*visiting historical and archaeological heritage*’ (0.77) and ‘*visiting historical centres*’ (0.77). Lastly, the “atmosphere” construct is mainly composed by ‘*calm and relaxed atmosphere*’ (0.78), ‘*picturesque and traditional atmosphere*’ (0.76), ‘*friendly and family-oriented lake*’ (0.75) and ‘*idyllic country atmosphere*’ (0.75), respectively.

Finally, the database was randomly split into two samples and the analysis was performed once again. The GOF indexes were equally good, which supports the validity of the model in other samples as well.

8.4.3 Photo-Based Image Approach (PBI Model)

As explained earlier, the second conceptual model also consists of a second-order factor analysis aiming to explain the overall pictorial image of the destination. The same constructs were kept. However, in this model the influence of each is measured by pictorial image in which tourists were invited to rank how a photo meets their perceptions about the construct to which this photo belongs. Thus, the questionnaire also includes visual elements for assessing LDI, which derive from the findings of previous stages of the research. As in the attribute-based image, the photos were also categorized based on the attributes the photos comprise mostly. Five dimensions were considered (“natural resources”, “infrastructures”, “leisure and recreation”, “culture and heritage”, and “atmosphere”) with 25 photos in total.

Subsequently, CFA suggested eliminating some items previously considered in the model due to their low standardized coefficient as previously explained. The resulting factors consisted of three items for “tourist leisure and recreation”, eight items for “culture and heritage”, four items for “atmosphere”, two items for “natural resources” and four items for “infrastructures”. Figure 8.3 illustrates a sample of photos from this model (PBI) organized by five image dimensions of an LDI.

Figure 8.3 - Sample of Photographs from Model 2 (Photo-Based Image) Representing the Five Image Dimensions of an LDI



Dimension 1 “Natural Resources”: physical characteristics directly related to the lake. (Photo 1/NR1)



Dimension 2 “Infrastructures”: facilities and infrastructures which allow access to and navigating on the lake. (Photo 5 /Inf1)



Dimension 3 “Tourist Leisure and Recreation”: different types of sporting and recreational activities that take place on the lake and surrounding region where the lake is located. (Photo 8 /TLR1)



Dimension 4 “Culture and Heritage”: cultural and historical attractions that provide insights into the history of the territory. (Photo 19/CH8)



Dimension 5 “Atmosphere”: includes communities with visible natural elements creating an atmosphere around the lake. (Photo 24/Atmf3)

Source: Own Elaboration. Official photos with permission. Based on Rodrigues *et al.*'s (2015a) classification.

A five-factor instrument based on five image dimensions was finally identified as the ideal solution with 21 photos in total. As shown in Table 8.4, reliability calculations reveal a high level of internal consistency. All items are reliable and all values for composite reliability are above the critical value. The results of reliability for the latent constructs in this study support the use of these observed variables.

Table 8.4 - Confirmatory Factor Analysis of Photo-Based Image (PBI)

Latent Constructs and the corresponding photos	Item reliability		
	Standardized Factor Loading	Standard Errors	C.R or t - value
F1 Natural Resources (NR)			
Photo 1 (NR1)	0.837		
Photo 2 (NR2)	0.854	0.07	15.975***
F2 Infrastructures (Inf)			
Photo 3 (Inf1)	0.76		
Photo 4 (Inf2)	0.732	0.072	14.703***
Photo 5 (Inf3)	0.804	0.067	15.037***
Photo 6 (Inf4)	0.798	0.069	14.459***
F3 Tourist Leisure & Recreation (TLR)			
Photo 8 (TLR1)	0.774		
Photo 9 (TLR2)	0.772	0.066	14.937***
Photo 10 (TLR3)	0.751	0.064	14.119***
F4 Culture & Heritage (CH)			
Photo 12 (CH1)	0.807	0.069	16.027***
Photo 13 (CH2)	0.878	0.064	18.392***
Photo 14 (CH3)	0.798	0.074	15.657***
Photo 15 (CH4)	0.866	0.084	15.126***
Photo 16 (CH5)	0.867	0.088	14.749***
Photo 17 (CH6)	0.746	0.066	14.904***
Photo 18 (CH7)	0.771	0.072	16.089***
Photo 19 (CH8)	0.745		
F5 Atmosphere (Atmf)			
Photo 22 (Atmf1)	0.784	0.047	17.566***
Photo 23 (Atmf2)	0.812	0.049	18.599***
Photo 24 (Atmf3)	0.825	0.042	19.42***
Photo 25 (Atmf4)	0.805		

***p<0.001

Source: Own Elaboration.

Additionally, as shown in Table 8.5, the results of the model evaluation ($X^2=578.15$; $p=0.000$; $X^2/df=3.23$; $GFI=0.890$; $AGFI=0.858$; $PGFI=0.689$; and $RMSEA=0.067$) reveal that the sample data fit the proposed five-factor model since suitable indicators of

goodness-of-fit were obtained. Next, estimates of the reliability and variance extracted measures for each construct were assessed. The average variances extracted (AVE) of all the constructs were above the recommended cutoff of 0.50 (Fornell and Lacker, 1981). Discriminant validity was established where MSV and the ASV were both lower than the AVE for all the constructs. This indicates that the results of the tests were found to be satisfactory, confirming convergent and discriminant validity.

Table 8.5 - Reliability and Validity - Model II (Photo-Based Image)

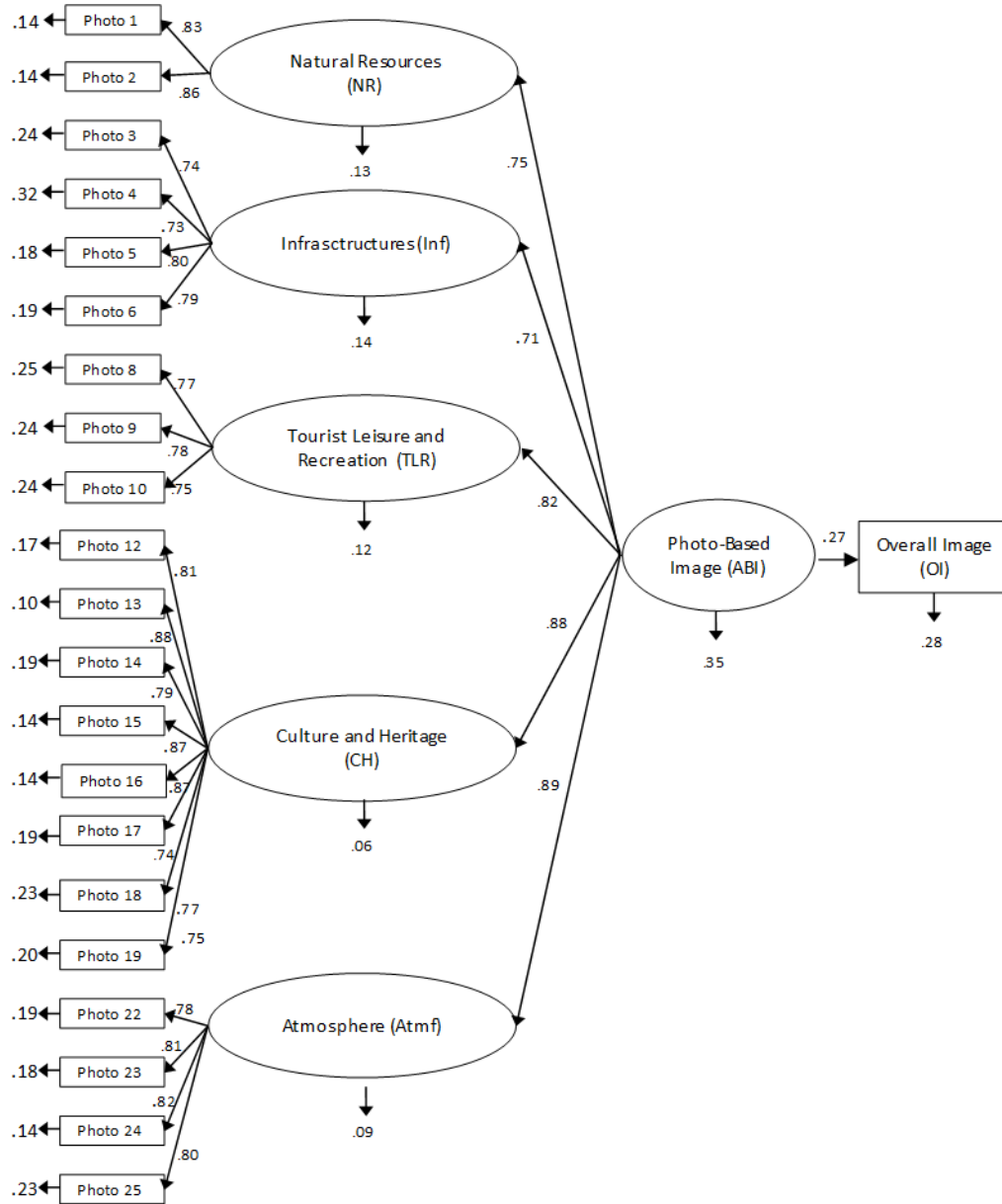
	CR	AVE	MSV	ASV	Culture & Heritage	Natural Resources	Infrasctructures	Tourist Leisure & Recreation	Atmosphere
Culture & Heritage	0.939	0.658	0.637	0.457	0.811				
Natural Resources	0.834	0.715	0.426	0.370	0.604	0.846			
Infrasctructures	0.857	0.599	0.389	0.344	0.556	0.601	0.774		
Tourist Leisure & Recreation	0.810	0.586	0.517	0.430	0.719	0.574	0.624	0.766	
Atmosphere	0.882	0.651	0.637	0.466	0.798	0.653	0.564	0.695	0.807
GOF Indexes	X²	P	X²/df	GFI	AGFI	PGFI	RMSEA		
Whole sample	578.15	0.000	3.23	0.89	0.858	0.689	0.067		
Test sample (n= 233)	416.837	0.000	2.329	0.851	0.807	0.689	0.067		
Validation sample (n= 267)	391.116	0.000	2.185	0.839	0.793	0.65	0.071		

Source: Own Elaboration.

Lastly, the construct reliabilities for “culture and heritage”, “natural resources”, “infrastructures”, “tourist leisure and recreation” and “atmosphere” were 0.939, 0.834, 0.857, 0.810, 0.882, respectively. Again the values exceeded the recommended threshold suggested by Bagozzi and Yi (1998), indicating the internal consistency of items in each construct. Construct composite reliability, average variances extracted, and correlations for all latent variables are also specified in Table 8.5. Therefore, the hypothesized measurement model is reliable and meaningful to test the structural relationships among constructs.

Next, a SEM was tested in order to determine the structure of LDI and if LDI, particularly PBI (photo-based image) influences the overall image of the destination. Figure 8.4 shows the standardized model as estimated by AMOS. The results of maximum likelihood estimation suggested that the model fitted to the data well ($X^2=627.088$; $p=0.000$; $X^2/df=3.074$; $GFI=0.886$; $AGFI=0.858$; $PGFI=0.714$; $RMSEA=0.064$).

Figure 8.4 - Standardized Estimated Hypothetical Model (Model 2/PBI)



Fit indices: $\chi^2 = 627.088$; $p = 0.000$; $\chi^2/df = 3.074$; GFI = 0.886; AGFI = 0.858; PGFI = 0.714; RMSEA = 0.064

Note: χ^2 = Chi-square; GFI = goodness of fit; AGFI = adjusted goodness-of-fit; PGFI = parsimony goodness-of-fit; RMSEA = root mean square error of approximation.

Source: Own Elaboration.

Next, the database was randomly split into two samples and the analysis was performed once again. The GOF indexes were equally good, which supports the validity of the model in other samples as well (see again Table 8.5).

Finally, all hypothesised relationships in model II/PBI (photo-based image) are supported (see again Figure 8.4). The influence of each construct was measured by pictorial image and in this case, path hypothesis H1b (i.e. ‘natural resources are manifested in the PBI of an LDA’) is accepted because the standardized coefficient of “natural resources” to PBI is positive and statistically significant ($b=0.749$ $p=0.000$) suggesting that “natural resources” are manifested in PBI. Path hypothesis H2b (i.e., ‘infrastructures are manifested in the ABI of an LDA’) is accepted because the standardized coefficient of “infrastructures” to PBI is positive and statistically significant, ($b=0.712$ $p=0.000$). Path hypothesis H3b (i.e., ‘tourist leisure and recreation are manifested in the PBI of an LDA’) is accepted since this factor has a positive and statistically significant coefficient ($b=0.821$; $p=0.000$).

Path hypothesis H4 (i.e., ‘culture and heritage are manifested on the PBI of a LDA’) is accepted because this factor has also a positive and statistically significant coefficient ($b=0.880$; $p=0.000$). Path hypothesis H5 (i.e., ‘atmosphere is manifested in the PBI of an LDA’) may not be rejected since “atmosphere” is the most important factor explaining PBI with a positive and significant coefficient ($b=0.894$; $p=0.000$). In conclusion, “atmosphere”, “culture and heritage” and “tourist leisure and recreation” are the constructs that most influence the pictorial image of this LDA. Finally, path hypothesis H6b (i.e., ‘PBI positively influences the overall image of an LDA’) was supported with a positive and significant coefficient ($b=0.273$; $p=0.000$).

8.5 Conclusions and Implications

The objective of this study was to define a set of image variables that create the image of LDAs, in order to enhance the understanding of this recent sub-field of tourism studies. Based on the current literature about DI and lake tourism, a two-model approach was proposed – named as *attribute-based image* and *photo-based image* approach. The postulate of this approach was grounded on two processing modes of storing information (MacInnis and Price, 1987): the traditionally information processing-theory (ABI model) and more recently the imagery processing-theory (PBI model). Using data obtained from questionnaires applied at the Alqueva Lake, six hypothesized paths were tested using a two-stage structural equation modelling. A

measurement model was first used to confirm the factor loadings of the constructs under examination, after which a hypothetical model specifying the interrelation among them was investigated.

This study was motivated by the need for research in lake tourism and LDAs as a new sub-field of tourism studies. Additionally, the fact that the Alqueva Lake is at the very beginning of the life cycle as an LDA, this study advocates that an image assessment at this stage of a destination development will strongly contribute to its progress. It is known that the success of many destinations largely depends on the images held by potential tourists and its strategic management. The results of this study should allow the development of an image measurement scale more adapted to LDAs to move forward. Confirming Rolo-Vela's (2009) conclusion regarding other types of tourism, such a scale can then be used to form a management development plan for tourism grounded on destination image as a key marketing tool. This will be very useful in the case of the Alqueva Lake where the regional DMO is precisely at the present moment defining a marketing plan for the future. With this in mind, this empirical study has attempted to contribute to the body of knowledge in two ways: (1) by investigating the nature of LDI; and (2) by exploring the concept of lake tourism as a recent field of study.

In this sense, the results indicate that a set of image dimensions formed the image of LDAs such as the ones studied: "natural resources", "tourist leisure and recreation", "infrastructures", "culture and heritage" and "atmosphere". The dimension "atmosphere" was the most important factor in explaining LDI, which is in line with a tendency in DI literature of strengthening the psychological attributes (more intangible). During the 1970s and 1980s, DI was measured mainly by the functional attributes (e.g. Gartner, 1986) and it was only in the 1990s that more intangible attributes were assessed, e.g. 'receptiveness' (Ahmed, 1991) or 'relaxing atmosphere' (Fakeye and Crompton, 1991). In the case of LDI, attributes related not only to the lake itself, but mainly to the surrounding region were most highlighted (e.g. 'exploring lakeside villages', 'hospitality and friendliness of local people' or 'calm and relaxed atmosphere'). This result entirely corroborates the literature review regarding lake tourism from two perspectives. Firstly, it supports the idea that lake tourism is not only related to the lake itself, but to all the resources that are located in the surrounding region as discussed in the literature review section. For that reason and in conclusion,

this study proposes a definition that conceives lake tourism and an LDA as a multidimensional concept where “*an LDA is a functionally compact regional whole with a clear geographical entity comprising images and perceptions, where tourism development is manifested predominantly on the lake itself (natural or man-made), but also intensely based on the resources, activities, facilities and infrastructures located in the surrounding region, where a complex amalgam of stakeholders requires a strong management level.*” Secondly, the intangible and abstract component of LDI such as “atmosphere” allow an approach to the lake through the concept of ‘spirit of the lake’ (Tuohino, 2006), where the lake must be considered not as a neutral but as a meaningful landscape. This meaning is added through emotions and sensations that will bond tourists to the lake. It is through the intangible component of image that tourists are able to feel and experience the lake itself and its surroundings. In other words, every lake has to find its ‘local touch’ or the main elements that formed its identity, which should be highlighted through a marketing strategy. Knowing which attributes are most strongly linked with the ‘atmosphere’ of a lake will reinforce this goal.

In line with the previous thought, the dimension “culture and heritage” and its attributes (‘visiting historical and archaeological heritage’, ‘exploring traditional architecture’ and ‘visiting historical centres’) supports the idea that not only are physical resources important for lake tourism, but also its social and cultural elements. These elements correspond to the identity of an LDA. Moreover, in the case of the Alqueva Lake it seems to be crucial to establish a link between the lake itself and the lakeside villages in terms of tourism development. As stated by Rodrigues *et al.* (2013: 141) “linked to the definition of lake tourism is the idea that there is a geographical entity with particular environment characteristics”. Regarding the image dimension “tourist leisure and recreation”, it is mainly composed by attributes related to water-based activities, particularly boating and fishing, as expected. In conclusion, the improvement of these dimensions and attributes implies improving LDI, positioning, and competitive strength on perceived differential attributes.

It is important to remember that this study also considered the pictorial image based on the assessment of photos related to the Alqueva Lake (PBI). The goal here was to enhance the information processing with imagery processing. Interestingly, the results show that the visual image of the Alqueva Lake is mainly influenced by mental images, associations, feelings related to the atmosphere of the lake.

From this point, it is relatively easy to determine that the nature and formation of destination image are two fundamental subjects for both academics and practitioners in tourism. Academically, more than forty years of fertile research indicates that the DI construct has crossed different stages of scientific development and has reached the aging of the curve in terms of scientific maturity. Researchers now have a tremendous responsibility to determine the future direction of DI as a research field (Rodrigues *et al.*, 2012). Simultaneously, from a managerial perspective, there is no doubt that for most destinations, mainly the ones that are in the very beginning of Butler's (1980) life cycle such as the Alqueva Lake, image creation and management represent a key tool for positioning, differentiation and promoting them in a growingly competitive world (Font, 1997; Sonmez and Sirakaya, 2002). Past studies have already concluded that destination attributes strongly influences the level of tourists' satisfaction and their intentions of recommendation and repeat visitation (e.g. Kozak, 2002). Further, studies also demonstrate that psycho-social factors have an important role in the evaluation of alternatives in consumer decision process and the living experiences even are considered as an important construct in decision process model (Demir *et al.*, 2014). Based on this, the formation of an image based on the experiences at the destination assume a crucial role for strengthen destination competitiveness.

With this in mind, this empirical study has attempted to contribute to the knowledge of destination image in two ways: (1) at an academic level, a destination image structure applied to lake tourism and LDAs was explored and determined for the first time in DI research; (2) at a managerial level, the dimensions of LDI exercise with most influence on attribute- and photo-based image of the Alqueva Lake and on the overall image were identified.

This study has been applied to one type of tourism, lake tourism, and to a single destination, the Alqueva Lake. However, the findings allow relevant conclusions. Firstly, the CFA suggests the existence of image components that are relevant for LDI structure: four in the case of attribute-based image, and five in photo-based image. Additionally, the corresponding attributes specifically related to this type of destination were also determined. Secondly, regarding the relationship between constructs, structural equation analysis shows that in approaches (attribute and photo), "atmosphere" was the image dimension that is most manifested in LDI structure, which seems to indicate that psychological attributes are decisive in the image structure of

LDAs. These results may explain the need to also include the affective component of the image in the future. Furthermore, regarding the overall image, “atmosphere” is the DI component that exercises the greatest influence.

8.6 Limitations and Directions for Future Research

In this study the main limitations are related to the geographic area where the research was conducted. On the one hand, the attributes used to measure LDI on a structured technique are conditioned by the destination itself. In this case, the fact that the Alqueva Lake is at the very beginning of tourism development might uncover some other attributes which are important in measuring destination image of an LDA. Further, the results do not completely capture the image of the Alqueva Lake. Any quantitative approach leaves itself open to what respondents understand from the questionnaire items. On the other hand, the destination also influences the characteristics of the sample, of which domestic tourists (Portuguese tourists) were the chosen since this is the dominant market (about 70%). Consequently, this research should be applied to other LDAs and markets in order to strengthen the results and generalized the findings. Nevertheless, the main contribution of this Paper is to step forward into the still unknown field of destination image in LDAs, completely absent from DI research over the last forty-five years. A set of image dimensions and attributes specifically related to lake tourism and LDAs was then proposed and measured.

Finally, some additional recommendations for further research are suggested. Firstly, future lines of investigation should be directed towards a reliable and valid scale of image measurement for LDAs. In this context, the next step will be, for instance, to replicate Alcañiz *et al.*'s (2009) analysis through an applicability of the functional-psychological continuum of Echtner and Ritchie (1991, 1993), but applied now to LDAs. In addition, the affective component of image should also be considered, since the “atmosphere” was the predominant component of LDI structure as the findings of this have demonstrated. Nevertheless, since there are different types of lakes with totally different realities it will first be appropriate to determine a classification system or a typology of lakes based on pre-defined criteria. These categorical types will allow a more rigorously validation of the image measurement scale. The development of these

scales will make it possible to settle on the right courses of action or strategies that should be implemented to improve destination competitiveness.

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CHAPTER 9

CONCLUSIONS

9.1. Summary and Discussion of the Results

The fundamental purpose of this thesis was to investigate more thoroughly lake tourism as a recent academic subfield of tourism studies, through assessing the image of LDA. To achieve this goal, the image of the Alqueva Lake as a potential LDA located in the south of Portugal was examined. This new resource offers a naturally defined unit for tourism development since the reservoir started to fill up in 2002 and today it is the largest reservoir in Europe. The conceptual frame of reference in which the thesis is embedded arises from DI theories, methods and techniques established since the 1970s, intertwined with lake tourism theory that came to light at the beginning of the 2000s. In this section only the overall conclusions are detailed since individual results are presented in each Paper.

9.2. Theoretical and Methodological Implications

This research and the results here obtained allow us to expand DI research from two perspectives. Geographically speaking it was possible to extend the range of DI studies since more places in the world are becoming travel destinations. Some research has been produced in relation to image and branding applied to Portugal (e.g. Kastenholz, 2002; Silva *et al.*, 2013; Silvestre and Correia, 2005; Pereira *et al.*, 2013; Oliveira and Panyik, 2015), however it is not yet representative of the vast potential as a travel destination. This thesis seized the opportunity to focus on Portugal as a country, particularly on a smaller entity as a new man-made lake. In this sense, it allowed not only a geographical extension, but also an extension of the scope of DI studies by including a non-traditional entity such as lake tourism and LDAs. Lake tourism is still an unrevealed DI topic despite forty-five years of research. Actually, one of the concerns throughout this investigation was to raise awareness of a relatively new subject like lake tourism and try to take the literature further by exploring the concept, characteristics and dimensions of this recent sub-field of tourism studies. The purpose here was definitely an attempt to measure DI, but applied to a specific travel context diverging from what Pike (2002: 542) concluded, that “relatively few papers attempted to measure the destination image for any specific travel context (...) only 23 from the 142 papers”.

As a consequence of this line of reasoning and based on the literature review about the topic crossed with the results obtained from qualitative and quantitative stage, this thesis conceives and defines lake tourism and LDA as a functionally compact regional whole with a clear geographical entity comprising images and perceptions, where tourism development is manifested predominantly on the lake itself (natural or man-made), but also intensely based on the resources, activities, facilities and infrastructures located in the surrounding region, where a complex amalgam of stakeholders requires a strong management and coordination level.

Further, the content analysis revealed three spatial levels in terms of tourism development: (i) development on the lake itself as the main resource of this type of tourism; (ii) development on the lakeshore, intertwined with the (iii) development of the surrounding region. In addition and corroborating Ryhänen (2001) five main dimensions of lake tourism were extracted. As a result, on a theoretical level, this research attempts to advance the study of this particular type of tourism, as well as in DI research.

An additional contribution of this thesis is provided in Paper 2, related to the literature review stage of this investigation. Rather than endeavour a classic in-depth literature review of DI as the main construct of this thesis, a different framework was proposed based on a life-cycle model applied to 'umbrella constructs'. With this methodology it was possible to characterize and follow up DI construct within a cyclical process where different approaches, theories, and methods were emphasized at different times in different periods. Further, by applying this framework of analysis, the PhD candidate demonstrated that after forty years of research, the DI construct has crossed three stages of scientific development and reached the aging of the curve, where three different directions can be taken in the future. In fact, this framework of reviewing literature has never been applied in DI research. (see Paper 2).

As far as attributes that might be involved in the image formation of LDAs are concerned, it must be stressed that scarce research has been done until the present day. The set of attributes extracted from the literature review were too generic and did not incorporate all salient attributes for LDAs. Therefore, the research carried out on this topic provided in the first stage a set of more than 100 variables that potentially influence the image formation of LDAS, categorized into 9 categories and 23

subcategories accurately related to lake tourism through a content analysis procedure. This study goes further by proposing a scale of LDI based on five factors or image dimensions such as: “natural resources”, “infrastructures”, “tourist leisure and recreation”, “culture and heritage” and “atmosphere”, which determine the structure of LDI. These dimensions were defined and grounded on Beerli and Martín’s scale (2004) mixed with lake destination theory (Ryhänen, 2001). Previous studies related to lake tourism image extracted some attributes, but they were not based on a proposed scale.

In conclusion and from a more theoretical perspective, this research attempts to move forward in three ways, (i) by increasing understanding and awareness in the area of lake tourism and LDAs as a very recent academic topic in tourism studies in which investigation only started in the 2000s (Tuohino and Lóránt, 2012); (ii) by advancing research in DI studies through exploring non-traditional destinations and types of tourism scarcely investigated before; and (iii) by proposing a life-cycle model applied to constructs as a new methodology for the literature review stage.

Methodologically speaking this thesis corroborates the rationale that integration of research techniques within a single project opens new and huge opportunities (Bryman, 2006; Siber, 1973). Further, this research not only advocates the combination of methods, but is based on a mixed-methods research (Creswell 2013; Creswell and Plano Clark, 2011; Teddlie and Tashakkori, 2012) demonstrating the benefits of integrating qualitative and quantitative procedures for measuring DI as argued by Jenkins (1999). In this particular study, qualitative research was assumed as the priority followed by the quantitative methods. The qualitative approach allowed an exploration of the lake tourism concept and dimensions and a depiction of the image variables most related to LDAs, through the use of content analysis; and the quantitative approach help to determine a set of image variables for LDI through testing a structural equation model of LDI. Moreover, this study is genuinely grounded on the usage of these two approaches in an integrated perspective, since the research design, research instrument, data collection and analysis were based on different ways of thinking each one with a different procedure (Bryman, 2006).

Lastly, there is an additional observation to be made regarding methodological issues: the use of imagery such as photographs, in addition to textual data, to extract image attributes in both approaches, structured and unstructured. Although this imagery

technique was not the primary stimulus to elicit perceived DIs from the respondents, it enriched the procedure. In fact, it allowed a broadening of the range of image attributes of LDAs. As stated by Heisly (2001: 45) regarding the discussion about scientific legitimization of the usage of visual work for scholarly purposes, “a product that combines the visual with the textual (...) should be considered superior in disseminating knowledge.”

9.3. Empirical and Managerial Implications

The main results and conclusions detected in this explorative research allow an examination of the nature and formation of LDI. Regarding the empirical Papers, the fourth and fifth Papers' contribution is to enrich the knowledge about the existence of a lake tourism definition and specific characteristics of this type of tourism and, simultaneously, identify image attributes specifically applied to LDAs. The results of these Papers provide evidence that all the decisions to create or improve an LDA image, its positioning in the market and to strengthen the competitive advantage of such locations are based on the development of a set of image attributes extracted from the content-analysis of textual and pictures. Useful insights into how lake tourism has its own particularities that can build upon an effective image and strategically use it in promotional campaigns were made. It is further shown that lake tourism as a concept is grounded on five dimensions (Resource, Supply, Logistical, Organizational, and Meaning), which may help to identify the image attributes of LDAs most appropriate to mark.

Further, a feasible image for LDAs is depicted through the case of the Alqueva Lake. A set of 39 variables that best describe the Alqueva Lake as an LDA was obtained and validated by the industry side. The LDI attributes were already pre-defined, generated by the previous stage. For that reason open-ended questions were included, which gave rise to a more detailed and authentic portrait of the Alqueva Lake. At the managerial level, these results may bring useful implications for tourism management authorities (regional DMO), since image building, brand creation and marketing positioning might be set up. A strategy focused on selling ‘waterscapes’ as a totally new landscape and reality could be implemented. This is a new lake that did not exist until 2002 and, as results have demonstrated in this thesis, telling the story of the lake

(“culture, history and art”, “history of the lake and surrounding region” can be viewed as a potential attribute to be explored in the context of lake tourism. In fact, it is believed that key ideas such as ‘water that didn’t exist before’, ‘new landscape and a totally new territory’, ‘blue spots of water in the driest and hottest region of Portugal’ as a consequence of the Alqueva dam construction might constitute a powerful combination and a unique opportunity for developing environment, historical, cultural and contextual themes for storytelling related to tourism (Mossberg, 2008). New experiences and tourism products regarding the Alqueva Lake can be created around these themes and stories. In addition, since this is a new territory that is in the very beginning, it will be interesting to carry out in the future longitudinal studies, exploring the behaviour of the market (e.g. long and short-hall markets).

Lastly, as far as strategic implications are concerned a conceptual model is proposed based on two DI approaches, attribute and photo-based image approach (ABI and PBI), which confirms the need for DMOs to pay more attention to visual representations of the destination that is being promoted. Further, the results indicate a set of image dimensions which form the image of LDAs such the as the ones studied: “natural resources”, “tourist leisure and recreation”, “infrastructures”, “culture and heritage” and “atmosphere” and that “atmosphere” was the most important factor in explaining LDI, which is in line with a tendency in DI literature of strengthening the psychological (more intangible) attributes. The results also provide information about the items that constitute these dimensions, which might help destination managers to define not only the image that should promote the Alqueva Lake, but also contribute to decisions related to the creation and development of destination experiences and products.

9.4. Limitations and Future Research Directions

Limitations and future research directions have been individually emphasised over the seven Papers that structure this thesis. The objective was to aim attention at each topic under investigation at a more detailed level. Nevertheless, some important limitations are covered in this section, which also open new avenues for future research. Firstly, related to the geographic area where the research was conducted. On the one hand, the attributes used to measure LDI with a structured technique are conditioned by the destination itself. In this case, the fact that the Alqueva Lake is at the very beginning of

tourism development might uncover some other attributes which are important in measuring destination image of an LDA. Further, the results do not completely capture the image of the Alqueva Lake. Any quantitative approach leaves itself open to what respondents understand from the questionnaire items. On the other hand, the destination also influences the characteristics of the sample, of which domestic tourists (Portuguese tourists) were the chosen since this is the dominant market with 73% of the market share (ERT, 2013).

However, despite the fact that modelling LDI has offered an explorative study in a completely new type of tourism in a newly-formed destination, it does not permit generalisation of the relevant indicators in each construct across different LDAs. Future studies should propose a more generic scale that includes a wide range of attributes based on different types of lakes and test its globally (for more detailed information see Byon and Zhang, 2010). Actually, since there are different types of lakes with totally different realities it will first be appropriate to determine a classification system or a typology of lakes based on pre-defined criteria (e.g. origin or surface of the lake, geographical location, level of tourist development?). These categorical types will allow a more rigorous validation of the image measurement scale. The development of these scales will make it possible to settle on the right courses of action or strategies that should be implemented to improve destination competitiveness. Nevertheless, the main contribution of this Paper is to step forward into the still unknown field of destination image in LDAs, completely absent from DI research over forty-five years. A set of image dimensions and attributes specifically related to lake tourism and LDAs was then proposed and measured. This research should be then applied to other LDAs and markets in order to strengthen the results and generalize the findings.

Finally, several additional directions are suggested for future research. Firstly, future lines of investigation should be directed towards a reliable and valid scale of image measurement for LDAs. The multi-method approach, specifically the unstructured technique that was used to explore and examine the nature of lake tourism and LDI has revealed a very useful instrument to extract information about the type of tourism and the destination under investigation. It will be interesting in the future to apply other qualitative techniques in order to deeply understand the nature of this new destination, e.g. grounded-theory, in a mix process of induction and deduction.

In this context, the next step will be, for instance, and based on these results to replicate Alcañiz *et al.*'s (2009) analysis through an applicability of the functional-psychological continuum of Echtner and Ritchie (1991, 1993), but applied now to the context of LDAs. In addition, the affective image (Gartner, 1993) should also be considered, since "atmosphere" was the predominant component of LDI structure as the findings have demonstrated. Further, lake tourism and LDAs are strongly characterized by landscape as an important image attribute as the findings of this study have revealed. And since 'waterscape' is all about human experience, meanings and emotions attached to them (Tuohino and Pitkänen, 2004), the pre-conditions are undoubtedly established for measuring the affective image of LDAs. The scale of Russel (1980) and his colleagues was applied to DI in 1997 (Baloglu and Brinberg, 1997) and has prevailed during decades of research. However, it will be a challenge in terms of investigation to explore other affective scales or even develop new ones and apply them based on the lake tourism context.

Another important conclusion that can be added is regarding the Alqueva Lake in particular. Since the perceptions that tourists hold about a destination have a crucial role for the success of a destination marketing strategy, based on the results of this study the regional DMO of the Alentejo region and the Alqueva Lake have now the opportunity to consider this information at a marketing research level and carefully examine the strengths and weaknesses of this emergent destination and define the most suitable marketing strategy for the lake. A market positioning effort and a brand advantage should now be the priority for DMO regarding the Alqueva Lake and engage cooperative destination marketing through a unifying brand management (Laws *et al.*, 2002). This study strongly recommends the multiple stakeholders involved in this process to adopt a short-term convergence strategy, in order to enhance all the projects and initiatives and promote a co-branding for the Lake. More concretely, stakeholders such as the DMO (Regional Tourism Organization for Alentejo and Ribatejo), ATTGLA (Association of the Alqueva Evolving Municipal Areas in Portugal and Spain), EDIA responsible for the management of the Alqueva Dam, Alqueva Dark Sky Reserve (see Paper 3) should engage in cooperative brand marketing and branding for the Alqueva Lake based on the model proposed by Cai (2002). Further, adding another aspect should be emphasized: the relevance of creating integrated images of a local destination within a large entity and at the same time being able to maintain each

destination's distinctive image (Wang, 1997; Wang *et al.*, 2005). Taking the Alqueva Lake as a specific case, there should be cohesion in positioning the Alqueva Lake as a sub-regional travel destination regarding a more regional level such as the Alentejo region. According to Wang *et al.* (2005) each destination may hold some strong or distinctive images; however, a small destination may find it hard to distinguish itself from its larger partners. In other words, this study advocates that an image strategy for the Alqueva Lake should be defined based on its own geographical and territorial delimitation, but steadily articulated with the image and promotion strategy for the Alentejo region.

It will also be interesting in the future and based on these findings as a primary stage, to undertake not a competitive analysis, but a benchmarking approach based on Kozak's (2002) work, among others. As the author says, "competitive analysis only looks at the characteristics of those in the same geographic area, while benchmarking seeks to find the best practices regardless of location." (Kozak, 2002: 500). Actually, the Alqueva Lake as a very recent destination that is not yet recognized in international markets should pay attention to developing consistent benchmarking studies in the future since strategies, models and, techniques may not be directly applicable to another destination that seems to be comparable. Each destination differs in its culture, values, leadership and, individual characteristics as well as its own visions and strategies for the future (Kozak, 2000, 2002; Kotler *et al.*, 1996). Furthermore, since there are different types of benchmarking, this study strongly recommends the adoption of the most suitable according to Kozak and Nield's (2001). A functional benchmarking or non-competitive benchmarking could be a valuable starting point, which refers more to comparative research based on the analysis of examples operating in similar fields and not the ones who compete directly (see Kozak and Nield, 2001). Thus, Alqueva Lake is at the very beginning of its development process, wherein its destination competitiveness is mainly based on comparative advantages, but not yet on competitive advantages (Ritchie and Crouch, 2003) and totally unknown by the international market. Because of that, a competitive analysis or a competitive benchmarking in this phase would be totally inadequate in terms of destination marketing strategy.

It is worth mentioning that following and even strengthening the primacy of visual representations of places in the construction of destination images (Garrod, 2008), it will be interesting to apply other visual techniques such as the case of visit-employed

photography which has been scarcely applied in tourism (e.g. Haywood, 1990). The goal here will be to explore the analysis of pictures taken by the tourists themselves who assume a determining role in the research as generators of the pictures while they are experiencing the Alqueva Lake. This is a very promising technique to depict the DI, mainly in emerging destinations, since it relies on a close relationship between the tourist and his experience. The findings will be able to reveal relevant DI attributes through the 'lens' of the tourist himself. Actually, as pointed out by Tuohino and Pitkänen (2004:78) "in a world overburdened with visual representations the questions arises, how can commercialisation and marketing bring out the spirit of the region?" How is possible to represent the 'spirit of a lake', in this case the Alqueva Lake, limited through the sense of vision and lens of just one photographer, through institutional photos? It is believed that other approaches, methodologies and techniques should be explored in further studies.

Finally, and based on the findings of this study, a more rooted conceptualization paper concerning lake tourism is needed grounded on a framework for analysis. This study set the conditions to undertake a more inductive approach and contribute in the future to building theory regarding lake tourism as a recent academic sub-field of tourism studies. There is some prior theory about this topic that can benefit from an induction work in the future, although based on a continuous reciprocity between induction and deduction approaches.

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APPENDICES

**Appendix 1 - A Composite List of Image Attributes more related to LDAs from
Content Analysis**

Appendix 1 - A Composite List of Image Attributes more related to LDAs from Content Analysis

Category/Sub-category	Supporting Qualitative Data
A. NATURAL RESOURCES	A.1 Origin/natural/man-made/dam/artificial; Type (Volcanic/glacier/glacial/tectonic); Surface (large/largest); Depth/deep/deepest; Elevation/High; Length/longest; Water transparency, clear; water temperature; Catchment area; Shoreline/lakeside/lakefront/lakeshore; Topography /configuration (Islands, bays, peninsulas, nooks, crannies, basins); Lake System/Water Body/single lake, lake district, Lakeland/canal/chain
A.2 Richness of nature	Protected Areas (UNESCO, Ramsar sites, Natura 2000 network, Starlight reserves, national park, regional nature reserve, etc); Flora/fauna/ fish, birds, reptiles, mammals, amphibians, invertebrates, plants, wildlife, animal, species; Sky; beaches/sand
A.3 Climate	Temperature/climate/Weather/snow/sunshine/summer/frozen/unfrozen/ice/freeze
B. GENERAL INFRASTRUCTURE	B.1 Access roads to the lake; Circular drives around the lake
B.1 Quality of roads	B.2 Existence of a nearby airport; From main transport centres to the lake; From main cities/villages to the lake; Between lakes; Between islands on the lake (ferry services, water taxis); Between villages around the lake
B.2 Transport facilities	
B.3 Nautical facilities and other infrastructures	B.3 Marinas; Ports and harbours; Public ramps; Boat slips or slipways; Public Pier; Swimming areas
C. TOURIST INFRASTRUCTURE	C.1 Restaurants, specialty shops, cafes, bars; Campgrounds/ camp sites; Caravan parks/resorts; Chalets; Cottages; Farm holiday; Guest houses/ inns; Holiday apartments/ flats; Holiday villas and homes; Hotels; Real Estate properties; Resorts; Rough camping; Self-catering homes; Timeshares; Vacation rentals; Villa rentals; Youth hostels/ backpacker lodgings
C.1 Accommodation and catering facilities	
C.2 Available packages	C.2 Organized tours/excursions (sightseeing, touring cruises, regular passenger cruises, half-day cruises, whole-day cruises, lunch cruises, evening cruises, fishing trips, children's and adventure tours, berry picking, mushroom, vineyard, ATV, etc)
C.3 Signed trails and paths	
C.4 Tourist services and information	C.3

Appendix 1 - A Composite List of Image Attributes more related to LDAs from Content Analysis (cont.)

	Bicycle trails; Climbing trails; Cross-country ski; Hiking trails; Horseback trails; Mountain biking trails; Nature trails; Scenic car ride; Scenic trails; Walking trails
C.4	Information maps (e.g. cycling, fishing); Tourist offices; Visitor and learning centres; Guided services (fishing, canoes); Nature centres; Townpaths/Promenades ; Picnic areas; Sport centres and parks (e.g. hot-air ballooning, cross-country ski, snowboard parks, ski resorts, summer ski-resorts, surf camps, adrenaline parks); Rental services (e.g. sailboats, boats, kayaks, canoes, fishing, rowboats, powered cruisers, yachts, motorboat, paddleboat, horses); Charter services (e.g. fishing); Access to licences/permits
D. Tourist Leisure and Recreation	
D.1	Boardwalk; Canoeing; Cruise boating; Fishing; Houseboating; Jet ski slipway; Kayaking; Kite-surfing; Pedal boats; Power boating; Rafting; Rowing; Sailing; Scuba diving; Sightseeing; Speed boating; Sunbathing; Swimming/Swimming marathons; Tubing; Wake-boarding; Water skiing; Occasional/casual boating; Photography ; Rowboating; Windsurfing
D.2	Biking; Birdwatching; Bungee jumping; Caving; Climbing; Golfing; Hang-gliding; Hiking; Horse riding; Horse-drawn carriage; Hot air balloon; Hunting; Miniature golf; Mountain biking; Mountain climbing/alpinism; Parachuting; Paragliding; Panoramic flights; Picnicking; Promenade; Rock climbing; Scenic walking; Sightseeing; Skating; Tandem paragliding; Tree climbing; Walking; Wildlife viewing
D.3	Alpine and Nordic skiing; Cross-country skiing; Curling ; Dog sledding; Downhill skiing; Ice fishing; Ice skating; Sledding; Snowboard; Snowmobiling; Snowshoeing; Snow rafting; Toboggan
D.4	Sport competitions and events (e.g. World championships, regattas, world cup, tournament, races, parades, shows, exhibitions, marathons); Themed events and festivals (e.g. evening parties, wine festivals, beach parties, etc); Shopping; Casinos; Local attractions (e.g. planetarium, playgrounds, mini-golf, swimming pools, casinos, Lake Aquarium, zoos, parks, gardens); Night life
E. Culture, History and Art	
E.1	Historic ruins; Pre-historic paintings; Archaeological ruins and artifacts; Local architecture; Legends/stories; Caves and World Culture Heritage Site/UNESCO
E.1	History of the lake and surrounding region
E.2	Museums; Castles; Fortress; Fortifications; Churches; Monasteries; Abbey; Chapel; Cathedral; Monasteries; Palaces; Medieval Quarter
E.3	

Appendix 1 - A Composite List of Image Attributes more related to LDAs from Content Analysis (cont.)

E.3 Cultural attractions and events	Music festivals and demonstrations; Concerts; Exhibitions; Galleries; Theatre; Dance and performances
E.4 Gastronomy	E.4 Local dishes, cheese, wine
F. Political and Economic Factors	F.1 Countries and region boundaries (transboundary lakes); Geo-political significance of the lake
F.1 Geographical location and territorial division	F.2 Salt extraction, sand for construction, fishery, energy production, supply of drinking water, agricultural, transportation
F.2 Lake Purposes (past and present)	
G. Natural Environment	G.1 Historic villages; Mountain villages; Cities; Hamlets; Lakeside towns; Small towns; Base camp; Home base; Starting point; Hot spot
	G.2 Rural; Natural; Alpine; Mountain; Vineyards; Farms; Orchards; Sloping banks; Vegetable farms; Deep valleys; Foothills; Alpine; Steep slopes; Cliffs; Meadows; Forests/woodlands; Waterfalls; Woodlands; Green orchards; Rural countryside; Wildlife; Pasture
H. Social Environment	H. Presence of local people; Way of life; Hospitality and friendliness
I. Atmosphere of the Place	I. Active; Amazing scenery; Amazing vistas; Beautiful scenery; Breath taking views; Challenging; Clear sky Dramatic scenery; Endless adventure; Exciting; Friendly and Family-oriented lake ; Funny and party atmosphere; Hospitable; Idyllic countryside; Inspired; Lake simplicity; Lake tranquility; Lake beauty; Magnificent views; Majestic landscapes; Majesty of alpine mountains; Memorable; Outdoor destination; Peaceful scenery; Picturesque Quiet; Rejuvenation; Relaxing; Romantic; Scenic villages; Spectacular views; Sunny days; Tranquility; Unique; Landscapes; Unspoiled views; Untouched; Uncrowded; Visually stunning

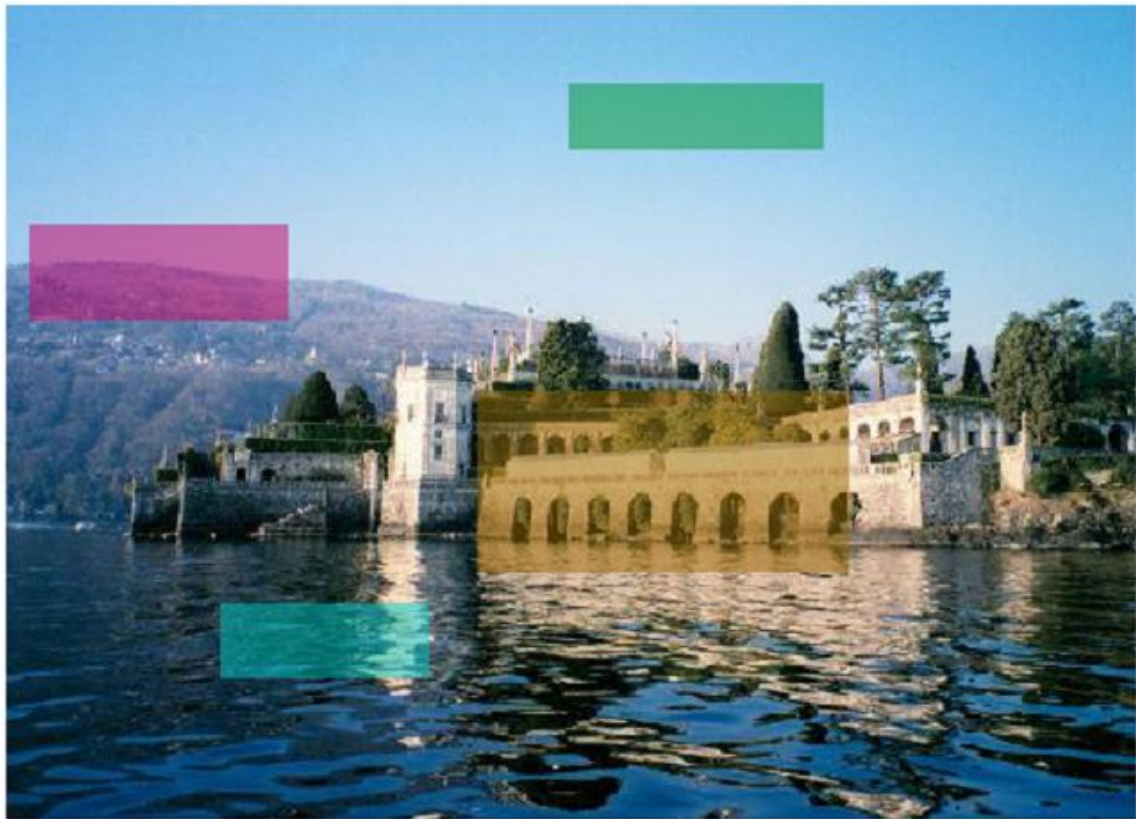
Source: Own Elaboration

Appendix 2 – Content Analysis of Photos using WebQDA Software: an Example

Appendix 2 – Content Analysis of Photos using WebQDA Software: an Example



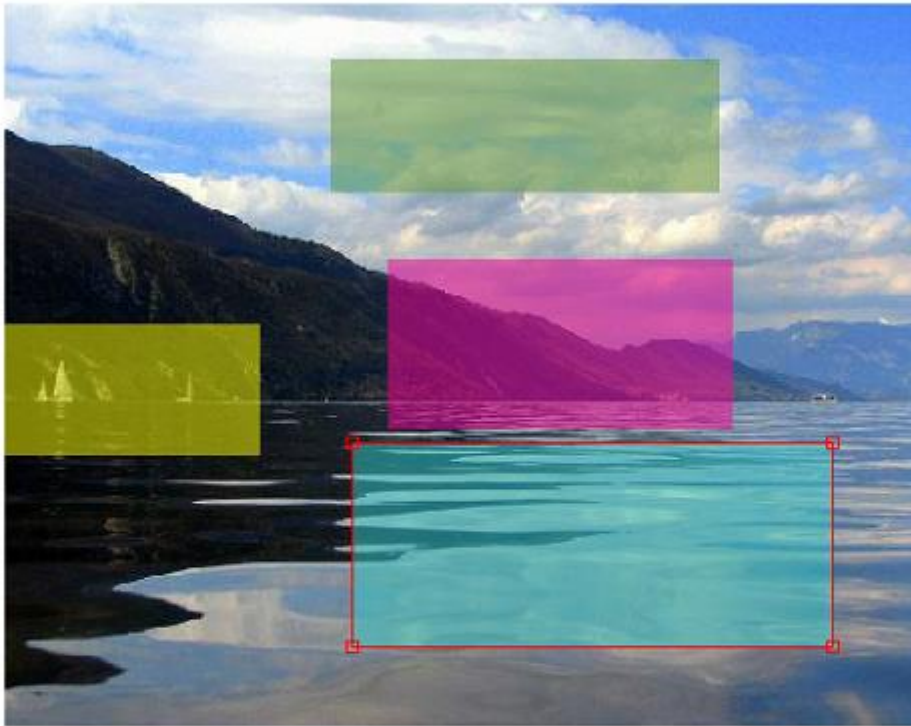
Fonte: Fontes Internas/LakeLubbers portal/Italy /PH_IT20_63



		Descrição:	Criado	Modificado
	1	Heritage/monuments/culture	17-09-2013 13:00:48	17-09-2013 13:02:37
	2	Surrounding mountains/landscape	17-09-2013 13:01:07	17-09-2013 13:02:37
	3	Lake tranquility, quite waters	17-09-2013 13:01:59	17-09-2013 13:02:37
	4	open and blue sky	17-09-2013 13:02:17	17-09-2013 13:02:37

Source: WebQDA web-based computer application.

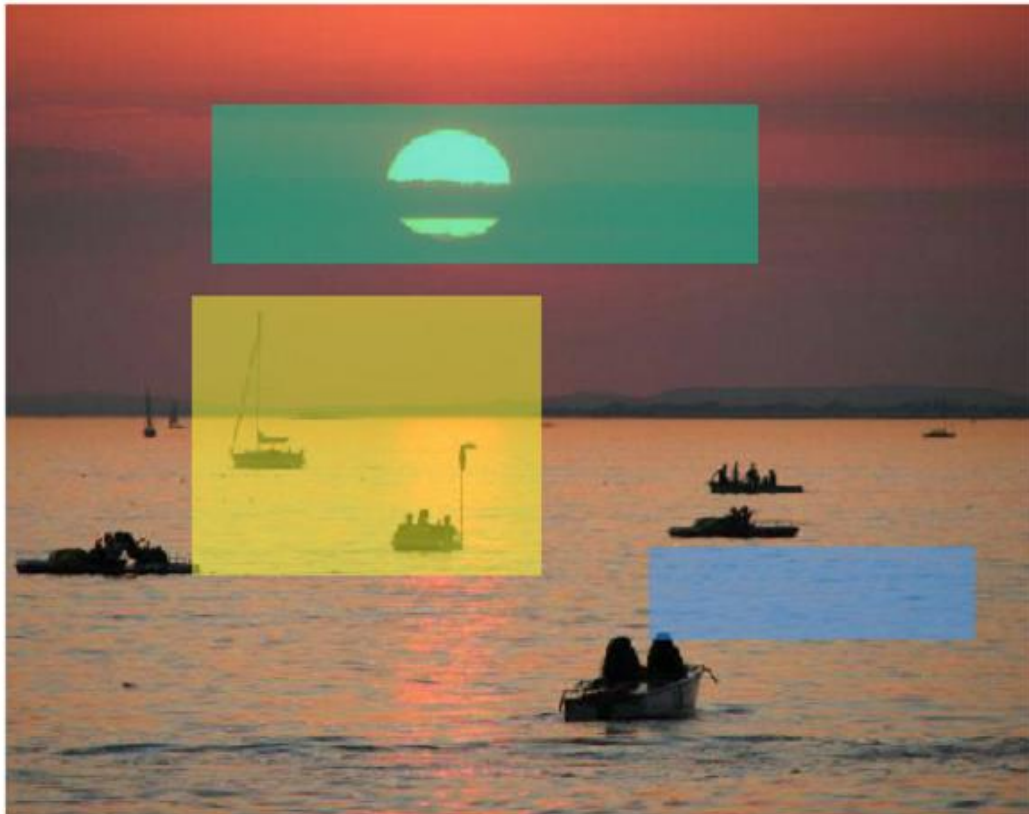
Fonte: Fontes Internas/LakeLubbers portal/France/PH_FR08_26



		Descrição:	Criado	Modificado
	1	several boats sailing on the lake	15-09-2013 19:36:18	15-09-2013 19:47:21
	2	tranquile, peaceful water	15-09-2013 19:36:50	15-09-2013 19:47:21
	3	Surrouding landscape/mountains	15-09-2013 19:37:25	15-09-2013 19:47:21
	4	Blue and open sky	15-09-2013 19:38:15	15-09-2013 19:47:21

Source: WebQDA web-based computer application.

Fonte: Fontes Internas/LakeLubbers portal/Germany /PH_GE09_29



		Descrição:	Criado	Modificado
	1	Sunset at the lake	16-09-2013 00:11:33	16-09-2013 01:24:13
	2	Boating and sailing on the lake	16-09-2013 00:12:02	16-09-2013 01:24:13
	3	peaceful and quite water	16-09-2013 00:13:10	16-09-2013 01:24:13

Appendix 3 - Procedure of Pictorial Data Content Analysis (examples of outputs)

Appendix 3a - List of Motifs (Objects or Appearances) Extracted with no Constraints from Content Analysis of Photos using WebQDA (1st step)

Water colour	Tourists walking on the lake/scenic walking	Services and infrastructures along the lakeshore
Houses/villages on the shoreline	Vegetation and topography on the lake	Boats on a mooring /nautical infrastructures
Natural environment/Landscape (mountains)	Colour of the water/blue and transparency	Lighthouse on the lake
Blue Sky/light	Vegetation on the lake	Uneven waters
Immense, blue and open sky	Towpath on the lake/infrastructures	Person fishing/lake activity
Village on the shoreline/lakeside communities	Colour of water/transparency	Promenade along the lake/ tourist infrastructures
Natural environment/mountains surroundings	Tourists looking at the landscape/amazing scenery	Tourists bathing and swimming on the lake
Blue, peaceful and calm waters	Water as mirror	Water transparency
Monument/cathedral on the lakeshore	Lake sunset	Road along the lake/general infrastructures
Monument/historical building	Anchored boats on a port	Islands on the lake/topography
Lake shoreline	Boat slips and piers/nautical infrastructures	Tourists on the lakeside
Communities on the lakeside	City near the lake/urban landscape	People/tourists on the boat
Sailing boat	Tranquil, quite waters	Bay at the lake/topography/configuration
House on the lakeshore	Sailing on the lake/sailing boat	People/tourists walking along the lake/promenade
Boat slip/nautical infrastructures	Cities on the lakeshore	Tourists visiting the monument located on the lake
Nature surrounding the lake/trees/vegetation	Open and blue Sky	Ice on the lake/Winter
Private boats	Surrounding scenery/vegetation/forests	Idyllic countryside, picturesque
Harbours/nautical infrastructure	Signals on water/nautical infrastructures	Flowers, flora richness along the lake
Surrounding mountains/natural setting/landscape	Richness of fauna/natural resources/birds and swans	Man-made lake/dam over the lake
Walking trail on the lakeshore	Boat on a slip/_boat anchored. Marina?	Man working on the lake
Local architecture	Trees, forests, vegetation	Natural beaches on the lake
Nautical infrastructures/access to the water/pier	Tranquil, calm and peaceful water	Karst topography
Houses on the lakeside	Several boats sailing on the lake	Cascading waterfalls
Lake beauty and tranquility; water reflection effect	Uneven waters	Contrast between blue and green
Type of lakeshore/forests/vegetation	Water acts as a mirror for the surrounding scenery	Pathway on the lake/infrastructures
Topography of the lake (bays, nooks and crannies)	Air view over the lake: configuration of the lake	Sunset at the lake
Tourist walking on the lakeshore/majestic views	Sailing boats anchored in a marina	Boating and sailing on the lake
Houses on the lakeshore/local architecture	Flowers/natural element (flora)	Pathway directly adjacent to the lake
Colour of the water highlighted	Marina/infrastructures	Monuments along the lakeshore/cultural

Source: Own Elaboration

Appendix 3b - The Process of Tying a Motif to a Theme or Thematizing (3th step)

42 motifs thematized/5 THEMES

Natural Elements	Infrastructures	Activities and Recreation	Culture and History	Natural Environment/Atmosphere
Natural beaches	Anchored boats	bath and swimming	heritage/monuments	Idyllic countryside, picturesque landscape
Blue Sky	Bays, nooks and crannies	Fishing	Local architecture	Private houses on the lakeshore
Richness of fauna (birds, swans)	Marina	Boating	Lighthouse on the lake	Landscape/mountains
Richness of flora	Ports and harbors	Tourist walking on the lakeshore	Cultural	Vegetation on the shoreline
Islands	Road along the lake	Walking trail on the lakeshore		Air view of the lake
Karts topography	Dam over the lake	Tourists admiring the view		lakes shoreline
Lake sunset		Tourists visiting the monument		Villages on the shoreline
Uneven waters	Others			City near the lake/urban
Water acts as a mirror	Man working on the lake			
Water transparency	Snow			
Water's blue color	Ice on the lake			

Source: Own Elaboration.

Appendix 3c - Visual information on the Five Sub-Categories/Themes: Final Classification (4th Step)

Category/N° of Photo	N° of Images	% of Images
1. Natural Elements	47	38
2. Infrastructures	22	18
3. Activities and Recreation	20	16
4. Culture and History	12	10
5. Natural Environment	23	19

Source: Own Elaboration

Appendix 4 - Interview Guide

Appendix 4 - Interview Guide



Universidade do Algarve/Instituto Politécnico de Beja

Investigação de Doutoramento em Turismo

Avaliação de Imagem de Destinos de Lagos: O caso do Lago do Alqueva, Portugal

Image Assessment of Lake-Destination Areas: the Case of Alqueva Lake, Portugal

Doutoranda: Ana Isabel Rodrigues (Docente do Instituto Politécnico de Beja)

Orientadores:

- (1) Professora Doutora Antónia Correia, Faculdade de Economia, Universidade do Algarve
 - (2) Professor Doutor Metin Kozak, School of Tourism and Hospitality Management Dokuz Eylul University, Turquia
-

Solicitamos a sua participação num estudo sobre a avaliação de imagem do Lago do Alqueva como um destino de Lagos emergente. O principal objetivo deste trabalho é o de medir e avaliar a imagem de destinos de Lagos. É também nosso propósito contribuir para um melhor entendimento sobre uma área de investigação recente: Turismo de Lagos e Destinos de Lagos, tendo como estudo de caso o Lago do Alqueva. Para isso solicitamos a sua participação para ajudar a definir os atributos de imagem a incluir na escala de imagem e responder a algumas questões relacionadas com o Lago do Alqueva, tendo por base a sua experiência. Esta participação será voluntária e o registo das respostas feito pelo próprio entrevistador. Todas as explicações serão dadas, caso haja alguma dúvida. Pode interromper a entrevista em qualquer momento. Para assegurar o rigor da análise dos dados recolhidos precisamos de proceder à gravação áudio (apenas da 2ª parte). Tudo o que disser será estritamente confidencial apenas a usar no âmbito deste estudo. Gostaríamos de saber se aceita participar nesta entrevista e se autoriza a gravação da mesma.

AGRADECEMOS A SUA COLABORAÇÃO.

Entrevista nº _____ Data: ____/____/____

Início: _____ Final: _____

Organização: _____

Nome: _____

Cargo: _____

1ª PARTE: Atributos de Imagem

Questão 1: A percepção de um destino de Lagos está associada a um conjunto de atributos que poderão ser mais ou menos relevantes na formação da imagem turística. Dos vários atributos que vos apresentamos gostaríamos de saber a sua opinião sobre dois assuntos:

- a) Grau de importância para um Turismo de Lagos;
- b) Se descrevem o Alqueva como destino de Lagos;

(Assinale com uma cruz a opção que considera mais adequada. Registo feito pelo entrevistador)

A. RECURSOS NATURAIS	1=Sem importância; 2=Com alguma importância; 3=Indiferente; 4=Importante; 5=Muito importante					1=Não Descreve; 2=Descreve um pouco; 3=Indiferente; 4=Descreve; 5=Descreve de todo				
	1	2	3	4	5	1	2	3	4	5
A.1. Características naturais do lago										
1. Origem do lago (artificial, natural)										
2. Tipo de lago (vulcânico, glacial)										
3. Superfície do lago										
4. Profundidade do lago										
5. Nível das Águas										
6. Qualidade das águas										
7. Transparência da água										
8. Temperatura da água										
9. Topografia do lago (ilhas, baías, penínsulas)										
A.2. Riqueza da Natureza										
10. Existência de Áreas Protegidas (e.g. UNESCO)										
11. Céu limpo										
12. Praias naturais										
A.3. Clima										
13. Temperatura do destino										
14. Época/temporada do lago (verão/inverno)										

B. INFRAESTRUTURAS GENÉRICAS	1	2	3	4	5		1	2	3	4	5
B.1. Desenvolvimento/qualidade de estradas											
15. Estradas de acesso ao lago											
16. Estradas que circundam o lago											
B.2. Facilidades de transporte											
17. Proximidade de aeroporto											
18. De vilas e cidades em direção ao lago											
19. Entre as ilhas do lago (serviços de ferry, táxis)											
20. Entre cidades/vilas que circundam o lago											
B.3. Desenvolvimento de infraestruturas náuticas											
21. Marinas e portos de recreio											
22. Rampas de acesso público a barcos											
23. Ancoradouros e cais públicos											
24. Áreas para banhos											
25. Escolas e centros náuticos											
C. INFRAESTRUTURAS TURÍSTICAS	1	2	3	4	5		1	2	3	4	5
C.1. Alojamento e restauração											
26. Restaurantes, lojas de especialidade, cafés											
27. Parques de campismo e caravanismo											
28. Resorts											
29. Turismo em Espaço Rural											
30. Pousadas											
31. Hotéis											
32. Apartamentos Turísticos/Villas											
C.2. Programas/Pacotes disponíveis											
33. Tours de barco organizados (e.g. meio-dia)											
34. Tours na região envolvente organizados											
C.3. Trilhos/Percurso sinalizados											
35. Existência de percursos (e.g. pedestres)											
C.4. Informação e Serviços Turísticos											
36. Mapas informativos (e.g. bicicleta, pesca)											
37. Existência de Postos de Turismo											
38. Centros Informação/interpretação											
39. Serviços de Guia (pesca, canoas)											
40. Áreas de picnic											

41. Serviços de aluguer (e.g. vela, barcos, pesca)											
42. Acesso a licenças de pesca											
D. TURISMO DE LAZER E RECREIO	1	2	3	4	5		1	2	3	4	5
D.1. Atividades aquáticas de desporto e recreio											
43. Passeios de barco/cruzeiros											
44. Canoagem e remo											
45. Pesca											
46. Passeios de "barco-casa"											
47. Kayak											
48. Kite-surf											
49. Barcos a pedal e remos											
50. Vela											
51. Banhos de Sol											
52. Natação											
53. Insufláveis, bananas, boias											
54. Wake-board											
55. Ski aquático											
56. Fotografia											
57. Windsurf											
D.2. Atividades em terra e ar, desporto e recreio											
58. Passeios de bicicleta											
59. Birdwatching/ Observação da natureza											
60. Escalada											
61. Caminhadas											
62. Balão de ar quente											
63. Caça											
64. Salto de páraquedas											
65. Parapente											
66. Voos panorâmicos											
67. Picnics											
68. Passeios a cavalo											
69. Percursos pedestres											
70. Observação da natureza											
D.4. Entretenimento e Eventos											
71. Competições desportivas											
72. Eventos temáticos (e.g. festivais gastronómicos)											
73. Visita a atrações locais (e.g. parques temáticos)											
74. Shopping											
75. Vida noturna											
E. CULTURA, HISTÓRIA E ARTE	1	2	3	4	5		1	2	3	4	5
E.1. História do lago e região envolvente											
76. Vestígios históricos e											

arqueológicos											
77. Classificação pela UNESCO											
78. Lendas/histórias sobre o lago											
79. Arquitetura local											
E.2. Museus e edifícios históricos											
80. Museus											
81. Castelos, Fortalezas e fortificações											
82. Edifícios religiosos (igrejas, ermidas)											
83. Centros históricos											
E.3. Atrações Culturais e Eventos											
84. Festivais de música (concertos, recitais)											
85. Galerias, exposições , teatro											
	1	2	3	4	5		1	2	3	4	5
E.4. Gastronomia Local											
86. Pratos típicos											
87. Vinho local											
F. FATORES POLÍTICOS E ECONÓMICOS	1	2	3	4	5		1	2	3	4	5
F.1. Localização geográfica e divisão territorial											
88. Localização do lago											
89. Definição de fronteiras territoriais do lago											
90. Significado geo-político do lago											
F.2. Finalidade do lago (passado/ presente)											
91. Conhecer as funções do lago (e.g.energia)											
G. AMBIENTE NATURAL	1	2	3	4	5		1	2	3	4	5
G.1. Atratividade das comunidades envolventes											
92. Vilas/cidades históricas perto do lago											
93. Existência de vilas/aldeias ribeirinhas											
94. Comunidade como ponto de partida da visita											
	1	2	3	4	5		1	2	3	4	5
G.2. Beleza da Paisagem											
95. Paisagem natural e rural											
96. Paisagem montanhosa											
97. Paisagem vinícola											
98. Vales profundos											
99. Encostas íngremes											
100. Planícies											
101. Florestas											
H. Ambiente Social	1	2	3	4	5		1	2	3	4	5

H.1. Comunidade Local											
102. Presença de população local											
103. Hospitalidade e afabilidade											
I. Atmosfera	1	2	3	4	5		1	2	3	4	5
104. Ativa e desafiante											
105. Divertida e de festa											
106. Atmosfera acolhedora											
107. Pitoresca, típica e tradicional											
108. Esplendorosa e inesquecível											
109. Intacta e intocável											
110. relaxante, pacífica e calma											
111. Cenário idílico e romântico											
112. Céu limpo e dias solarengos											
113. Lago amigável e orientado para a família											

Questão 2: *No seu entender, quais os atributos que mais caracterizam a imagem do Alqueva como destino de Lagos?*

Questão 3: *De seguida poderá visualizar algumas imagens do destino Alqueva que compõem o banco de imagens da antiga TGLA (Turismo Terras do Grande Lago Alqueva). As fotos estão classificadas em cinco temáticas: (A) Recursos Naturais; (B) Infraestruturas; (C) Atividades de Recreio e Lazer; (D) Cultura, História e Arte; (E) Ambiente Natural/Atmosfera . Pedimos o favor de visualizar com atenção cada uma das fotos e indicar as que mais utilizaria para promover o Alqueva enquanto turismo de lagos*

Categoria A: Recursos Naturais

<i>Registo feito pelo entrevistador</i>	1	2	3	4	5	0
A. Recursos Naturais						
F1A						
F2A						
F3A						
F4A						
F5A						
F6A						
F7A						

1- Não utilizaria de todo
2- Não utilizaria
3- Indiferente
4- Utilizaria
5- Utilizaria com toda a certeza
0- Não sei

Categoria B: Infraestruturas

<i>Registo feito pelo entrevistador</i>	1	2	3	4	5	0
B. Infraestruturas						
F1B						
F2B						
F3B						
F4B						
F5B						
F6B						

1- Não utilizaria de todo
2- Não utilizaria
3- Indiferente
4- Utilizaria
5- Utilizaria com toda a certeza
0- Não sei

Categoria C: Atividades de Recreio e Lazer

<i>Registo feito pelo entrevistador</i>	1	2	3	4	5	0
C. Atividades de Recreio e Lazer						
F1C						
F2C						
F3C						
F4C						
F5C						
F6C						
F7C						

1- Não utilizaria de todo
2- Não utilizaria
3- Indiferente
4- Utilizaria
5- Utilizaria com toda a certeza
0- Não sei

Categoria D: Cultura, História e Arte

<i>Registo feito pelo entrevistador</i>	1	2	3	4	5	0
D. Cultura, História e Arte						
F1D						
F2D						
F3D						
F4D						
F5D						
F6D						
F7D						
F8D						

1- Não utilizaria de todo
2- Não utilizaria
3- Indiferente
4- Utilizaria
5- Utilizaria com toda a certeza
0- Não sei

Categoria E: Ambiente Natural/Atmosfera

Registo feito pelo entrevistador	1	2	3	4	5	0
E. Ambiente Natural/Atmosfera						
F1E						
F2E						
F3E						
F4E						
F5E						
F6E						
F7E						
F8E						
F9E						

1- Não utilizaria de todo
 2- Não utilizaria
 3- Indiferente
 4- Utilizaria
 5- Utilizaria com toda a certeza
 0- Não sei

Questão 4: Nas fotos que identificou na pergunta anterior como as que melhor promovem o Alqueva como Destino de Lagos, indique os atributos que mais sobressaem para si em cada uma das categorias.

CATEGORIA	ATRIBUTO	ATRIBUTO
A. Recursos Naturais		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
B. Infraestruturas		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
C. Atividades de Recreio e Lazer		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
D. Cultura, História e Arte		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
Foto nº		
E. Ambiente Natural/Atmosfera		
Foto nº		
Foto nº		
Foto nº		
Foto nº		

Foto nº		
Foto nº		
Foto nº		

2ª PARTE: Semi-Estruturada/Estratégia do Destino

Estivemos a falar de Turismo de Lagos e do Lago Alqueva. Como é do seu conhecimento, o Lago do Alqueva é o maior lago artificial da Europa. Este novo recurso apresenta potencial para o desenvolvimento do Turismo.

Questão 5: De acordo com Ryhänen (2001) um Destino de Lagos pode ser visto com base em 5 dimensões: **recursos** (naturais e culturais); **de oferta** (serviços, infraestruturas, facilidades); **logística** (acessibilidade ao lago); **organizacional** (gestão do lago e ligação entre várias entidades envolvidas); **de representação** (conjunto de associações ao lago/atmosfera/sensações). Com base nestas dimensões, considera que o Alqueva é um destino de Lagos ou tem potencial para vir a sê-lo no futuro?

Questão 6: Assim e na continuidade da resposta anterior, pode identificar quais os pontos fortes e fracos do Lago Alqueva? Como avalia a importância da qualidade da água do Lago Alqueva?

Questão 7: Considerando a sua experiência no destino, quais as principais motivações de visita ao Alqueva?

Questão 8: E as atividades que promove junto dos turistas no Lago Alqueva?

Questão 9: Qual a sua opinião sobre a forma como o Lago do Alqueva está a ser promovido turisticamente? Tem existido um trabalho conjunto entre empresas e entidades públicas?

Questão 10: Como gostaria de ver o Lago Alqueva daqui a 10/20 anos?

Questão 11: Como define Turismo de Lagos e Destino de Lagos, segundo a sua visão e experiência no destino?

**Appendix 5 - Assessing Lake-Destination Image Attributes through the Results
from Checklist Technique**

Appendix 5: Assessing Lake-Destination Image Attributes through the Results from Checklist Technique

IMPORTANCE FOR LDA		DESCRIPTION OF THE ALQUEVA LAKE	
Examples of items with potential influence on image formation of LDA		Attributes that best describe the Alqueva as an LDA	
	Mean		Mean
<u>Name of the attribute N=44</u>		<u>Name of the attribute N=37</u>	
1. Quality of the lake water	4.8	1. Rural and natural landscape	4.5
2. Ports and marinas	4.8	2. Hospitality and friendliness	4.5
5. Boat tours on the lake	4.8	3. Clear sky and sunny days	4.5
8. Boating	4.8	4. Houseboating	4.4
3. Public ramps	4.7	5. Lake topography (Islands, bays)	4.4
4. Docks and berths	4.7	6. Surface of the lake	4.3
6. Organized tours in the region	4.7	7. Local dishes/gastronomy	4.3
7. Information maps	4.7	8. Local wine	4.3
9. Canoeing	4.7	9. Picturesque and traditional	4.3
10. Houseboating	4.7	10. Peaceful, quiet and relax	4.2
11. Photography	4.7	11. Destination climate	4.2
12. Sport competitions	4.7	12. Castles, fortress, fortifications	4.1
13. Themed events	4.7	13. Landscape with plains	4
14. Local dishes/gastronomy	4.7	14. Rural houses	3.9
15. Local wine	4.7	15. Boating	3.9
16. Existence of riparian villages	4.7	16. Existence of riparian villages	3.9
17. Hospitality and friendliness	4.7	17. Historical villages/cities	3.8
18. Fishing	4.6	18. Hospitable atmosphere	3.7
19. Birdwatching	4.6	19. Access roads to the lake	3.6
20. Castles, fortress, fortifications	4.6	20. Organized boat tours on the lake	3.6
21. Historical villages/cities around the lake	4.6	21. Historical and archeological ruins	3.6
22. Transport facilities to the lake	4.5	22. Religious buildings (e.g. churches)	3.6
23. Restaurants and cafes	4.5	23. Main functions of the lake	3.6
24. Rural Houses	4.5	24. Presence of local people	3.6
25. Existence of signed trails and paths	4.5	25. Idyllic, romantic and inspired	3.6
26. Tourist office	4.5	26. Unspoiled and untouched	3.5
27. Visitor and information centers	4.5	27. Friendly and family-oriented lake	3.5
28. Sailing	4.5	28. Water temperature of the lake	3.4
29. Scenic walking	4.5	29. Protected areas around the lake	3.3
30. Nature walking	4.5	30. Lake season (winter /summer lake)	3.3
31. Religious buildings (e.g. churches)	4.5	31. Fishing	3.3
32. Historical centers of villages and cities	4.5	32. Photography	3.3
33. Rural and natural landscape	4.5	33. Historical centers of villages/cities	3.3
34. Presence of local people	4.5	34. Location of the lake	3.2
35. Hospitable atmosphere	4.5	35. landscape with vineyards	3.2
36. Picturesque and traditional	4.5	36. Docks and berths	3.1
37. Unspoiled and untouched	4.5	37. Existence of a nearby airport	3.1
38. Peaceful, quiet and relax	4.5		
39. Idyllic, romantic and inspired	4.5		
40. Clear sky and sunny days	4.5		
41. Friendly and family-oriented lake	4.5		
42. Surface of the lake	4.4		

Source: Own Elaboration.

**Appendix 6 - Official Photos of the Alqueva Lake used for Photo-Elicitation
Technique during Interviews**

Appendix 6 - Official Photos of the Alqueva Lake used for Photo-Elicitation Technique during Interviews

CATEGORIA: RECURSOS NATURAIS (1)

Ficha A

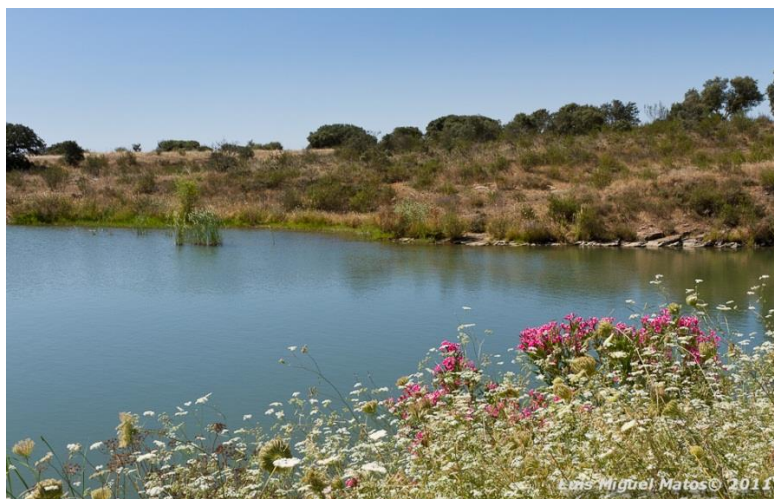


F1A



Luis Miguel Matos© 2011

F2A



Luis Miguel Matos© 2011

F3A



F4A



F5A



F6A



F7A



F1B



F2B



F3B



F4B



F5B



F6B



F1C



F2C



F3C



F4C



F5C



F6C



F7C



F1D



F2D



F3D



F4D



F5D



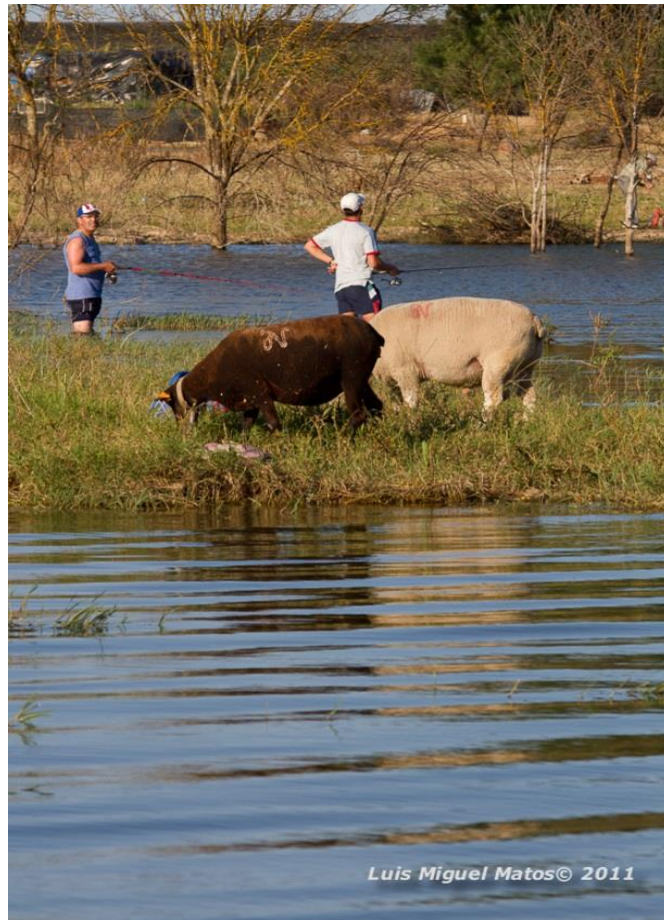
F6D



F7D



F8D



F1E



F2E



F3E



F4E



F5E



F6E



F7E



F8E



F9E

Source: Official photos from the former DMO of the Alqueva reservoir (TGLA) with permission.

- 1- Não utilizaria de todo
- 2- Não utilizaria
- 3- Indiferente
- 4- Utilizaria
- 5- Utilizaria com toda a certeza
- 0- Não sei

Appendix 7 – Questionnaire

Appendix 7 - Questionnaire



Universidade do Algarve
Instituto Politécnico de Beja
Doutoramento em Turismo

Local: _____ Inquiridor: _____ Data: ___/___/___ Nº _____

Caro/a Visitante:

QUESTIONÁRIO SOBRE IMAGEM DE DESTINO

Este questionário integra um estudo de Doutoramento em Turismo da Universidade do Algarve/Faculdade de Economia, realizado pela Professora Ana Isabel Rodrigues do Instituto Politécnico de Beja. A validade dos resultados depende de um número significativo de respostas, por isso estamos muito gratos pelo seu contributo. Pedimos assim o favor de responder às seguintes questões. A informação é confidencial. Agradecemos o seu tempo e consideração.

Parte A - Lago do Alqueva /Experiência Turística

- 1 Há quanto tempo está de visita ao Lago do Alqueva? _____ dias.
- 2 Quanto tempo pensa ficar na região? _____ dias.
- 3 Como denomina o território/região que está a visitar? _____.
- 4 Já visitou alguma vez o Lago do Alqueva?
- | | |
|--|---|
| <input type="checkbox"/> 1 Não, é a primeira vez que visito este Lago | <input type="checkbox"/> 4 Sim, com regularidade. |
| <input type="checkbox"/> 2 Não, mas já visitei outros locais no Alentejo | <input type="checkbox"/> 5 Sim, mas não com regularidade |
| <input type="checkbox"/> 3 Não, mas já visitei outros locais em Portugal | <input type="checkbox"/> 6 Sim, mas não tenciono visitar novamente. |
| | <input type="checkbox"/> 7 Outro. Qual? _____. |
- 5 Onde está/esteve alojado durante a sua visita ao Lago do Alqueva?
- 5.1. **Localidade** : _____.
- 5.2. **Tipo de alojamento** :
- | | |
|--|--|
| <input type="checkbox"/> 1 Apartamento Turístico | <input type="checkbox"/> 5 Parques de Campismo/Caravanismo |
| <input type="checkbox"/> 2 Casa arrendada | <input type="checkbox"/> 6 Residência Própria |
| <input type="checkbox"/> 3 Hotéis | <input type="checkbox"/> 7 Resort |
| <input type="checkbox"/> 4 Casa de familiares e amigos | <input type="checkbox"/> 8 Turismo em Espaço Rural |
| | <input type="checkbox"/> 9 Outro. Qual? _____. |
- 5.3. **De entre as opções anteriores que tipo de alojamento é o mais indicado para um Turismo de Lagos ?**
(pode indicar mais do que um) R: _____ e _____.
- 6 Que fontes de informação utilizou na decisão e recolha de informação sobre o Lago do Alqueva?
- | | |
|---|---|
| <input type="checkbox"/> 1 Agente de Viagens | <input type="checkbox"/> 4 Internet |
| <input type="checkbox"/> 2 Brochuras e guias turísticos | <input type="checkbox"/> 5 Promoções |
| <input type="checkbox"/> 3 Familiares & Amigos | <input type="checkbox"/> 6 Publicidade em jornais, revistas, TV |
| | <input type="checkbox"/> 7 Outro. Qual? _____. |
- 7 Qual o meio de transporte que utiliza para se deslocar nesta visita ? _____.

Parte B - Lago do Alqueva/Atributos de Imagem

8 A listagem que se segue indica um conjunto de aspectos importantes na formação da imagem de destinos de lagos. Para cada aspecto pedimos que indique se este descreve a imagem do Alqueva como destino de lagos.

1 - Nada ; 2 - Pouco ; 3 - Mais ou menos ; 4 - Bastante; 5 - Muito ; NS - Não sei

	Descreve o Lago Alqueva					
	1	2	3	4	5	NS
1. Saber a origem Lago Alqueva (<i>se é natural ou artificial</i>)	1	2	3	4	5	NS
2. Saber a superfície do Lago Alqueva	1	2	3	4	5	NS
3. Saber a profundidade do Lago Alqueva	1	2	3	4	5	NS
4. Qualidade da água do lago	1	2	3	4	5	NS
5. Água transparente	1	2	3	4	5	NS
6. Topografia do lago interessante (ilhas, baías, penínsulas)	1	2	3	4	5	NS
7. Áreas naturais protegidas	1	2	3	4	5	NS
8. Céu limpo e dias solarengos	1	2	3	4	5	NS
9. A temperatura na região do lago é amena	1	2	3	4	5	NS
10. Existência de várias épocas do lago (o "lago de verão" e "lago de inverno")	1	2	3	4	5	NS
11. Boas estradas de acesso	1	2	3	4	5	NS
12. Aeroporto próximo	1	2	3	4	5	NS
13. Marinas e portos	1	2	3	4	5	NS
14. Alojamento em espaço rural de qualidade	1	2	3	4	5	NS
15. Percursos de barco organizados	1	2	3	4	5	NS
16. Passeios de barco de recreio	1	2	3	4	5	NS
17. Passeios de canoas e kayaks	1	2	3	4	5	NS
18. Pesca recreativa	1	2	3	4	5	NS
19. Passeios de "barcos-casa"	1	2	3	4	5	NS
20. Fotografia panorâmica	1	2	3	4	5	NS
21. Prática de windsurf	1	2	3	4	5	NS
22. Passeios de bicicleta	1	2	3	4	5	NS
23. Observação de aves (<i>Birdwatching</i>)	1	2	3	4	5	NS
24. Património histórico e arqueológico	1	2	3	4	5	NS
25. Arquitectura local	1	2	3	4	5	NS
26. Núcleos históricos interessantes	1	2	3	4	5	NS
27. Gastronomia local de boa qualidade	1	2	3	4	5	NS
28. Boa localização do lago	1	2	3	4	5	NS
29. Importante conhecer a história/finalidades do aparecimento do lago	1	2	3	4	5	NS
30. Vilas/Aldeias ribeirinhas interessantes	1	2	3	4	5	NS
31. Paisagem rural e natural	1	2	3	4	5	NS
32. Paisagem com planícies	1	2	3	4	5	NS
33. Paisagem vinícola	1	2	3	4	5	NS
34. Hospitalidade e simpatia da população local	1	2	3	4	5	NS
35. Ambiente pitoresco e tradicional	1	2	3	4	5	NS
36. Ambiente de isolamento e pouca gente	1	2	3	4	5	NS
37. Ambiente calmo e tranquilo	1	2	3	4	5	NS
38. Ambiente campestre idílico e romântico	1	2	3	4	5	NS
39. Lago amigável e orientado para a família	1	2	3	4	5	NS

Parte C - Lago do Alqueva/Fotografias

9 Imagine que ainda não decidiu visitar o lago alqueva, analise as fotos e indique para cada uma delas qual a possibilidade de decidir visitar este lago com base nestas fotos.

Categoria A - Recursos Naturais					
Foto 1	1	2	3	4	5
Foto 2	1	2	3	4	5
Categoria B - Infraestruturas					
Foto 3	1	2	3	4	5
Foto 4	1	2	3	4	5
Foto 5	1	2	3	4	5
Foto 6	1	2	3	4	5
Categoria C - Actividades de Lazer					
Foto 7	1	2	3	4	5
Foto 8	1	2	3	4	5
Foto 9	1	2	3	4	5
Foto 10	1	2	3	4	5
Foto 11	1	2	3	4	5
Categoria D - Cultura e Património					
Foto 12	1	2	3	4	5
Foto 13	1	2	3	4	5
Foto 14	1	2	3	4	5
Foto 15	1	2	3	4	5
Foto 16	1	2	3	4	5
Foto 17	1	2	3	4	5
Foto 18	1	2	3	4	5
Foto 19	1	2	3	4	5
Categoria E - Atmosfera/Ambiente Natural					
Foto 20	1	2	3	4	5
Foto 21	1	2	3	4	5
Foto 22	1	2	3	4	5
Foto 23	1	2	3	4	5
Foto 24	1	2	3	4	5
Foto 25	1	2	3	4	5

Escala:

1 - Não visitaria de certeza

2 - Não visitaria

3 - Indiferente

4 - Visitaria

5 - Visitaria de certeza

Opcional: Se está interessado em acompanhar o projecto sobre Turismo de Lagos/Lago do Alqueva, indique por favor o seu contacto de email para receber mais informação: _____.



Nº _____

Parte D - Lago do Alqueva /Questões Abertas**10** Qual a sua impressão global do Alqueva como destino de Lagos?

-
- 1 Muito negativa
-
- 2 Negativa
-
- 3 Mais ou menos
-
- 4 Positiva
-
- 5 Muito positiva

11 Que imagens ou características vêm à sua cabeça quando pensa no Alqueva como destino de lagos? (Indique por favor algumas palavras/ideias)Resposta: _____
_____**12** Como descreveria a atmosfera ou ambiente do Alqueva como destino de lagos? (Indique por favor algumas palavras/ideias)Resposta: _____
_____**13** Para si quais as características únicas e distintivas do Alqueva como destino de lagos? (Indique por favor algumas palavras/ideias)Resposta: _____
_____**Parte E - Características sócio-demográficas****14** Idade _____**15** Sexo: 1 Masculino 2 Feminino**16** Nacionalidade: _____**17** País de Residência: _____**18** Qual a razão principal da sua viagem? _____**19** Que actividades realizou ou pretende realizar durante a sua estada?

(pode indicar mais do que uma) R: _____

20 Com quem está a passar as suas férias?

-
- 1 Em casal
-
- 2 Em família
-
- 3 Com amigos
-
- 4 Sózinho(a)
-
- 5 Grupo organizado

21. Rendimento médio familiar:

-
- 1 Menos de 2000 €
-
- 2 2001€- 3500€
-
-
- 3 3501€ - 5000€
-
- 4 5001€ - 8000€
-
-
- 5 Mais de 8001€

22. Ocupação Profissional:

-
- 1 Empregado
-
- 2 Desempregado
-
-
- 3 Não activo
-
- 4 Estudante
-
-
- 5 Reformado(a)
-
- 6 Outro

Qual? _____

23. Formação:

-
- 1 Elementar
-
- 2 Secundária
-
- 3 Universitária
-
- 4 Pós-Universitária
-
-
- 5 Outra. Qual: _____



Nº _____

Parte F - Parte Final/Opinião e Sugestões

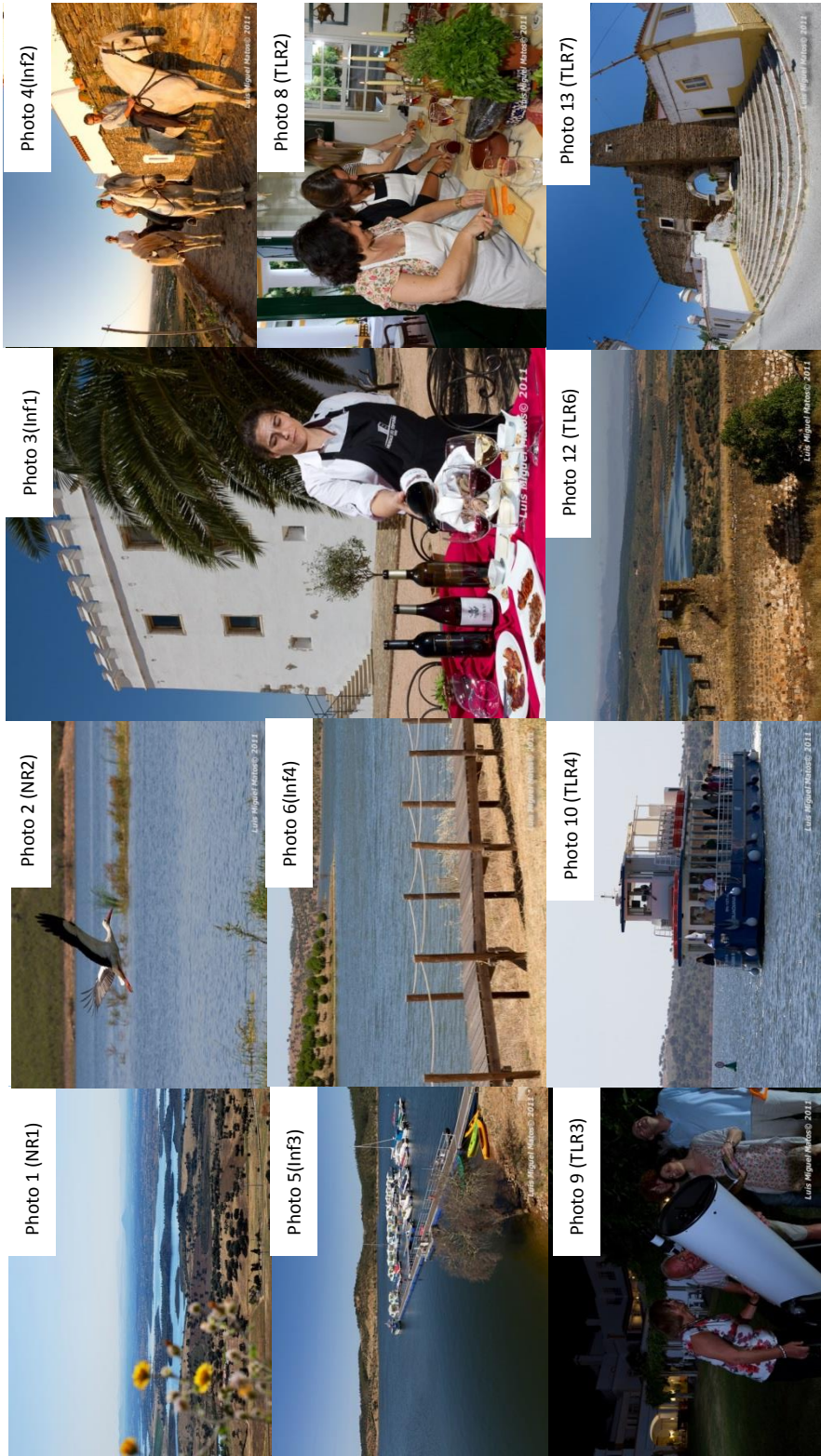
O Lago do Alqueva está ainda em fase inicial de desenvolvimento turístico. A sua opinião é importante. Por favor indique-nos os principais pontos/aspectos a melhorar no futuro tendo em conta a sua experiência neste local (*Indique por favor algumas palavras/ideias*)

Resposta: _____

Muito Obrigada.

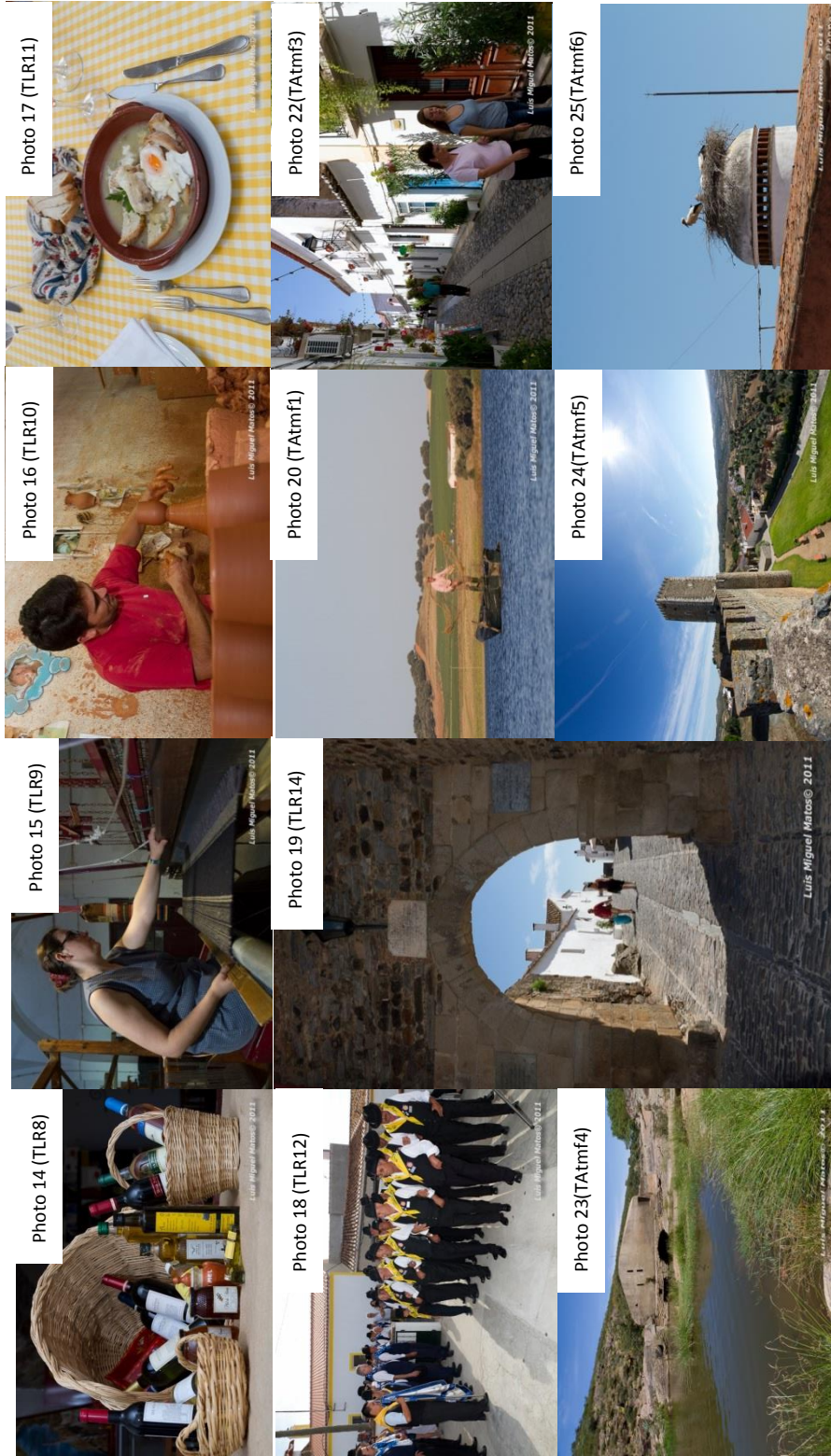
Appendix 8 – Photos used for Photo Ranking in the Questionnaire

Appendix 8 - Photos used for Photo Ranking in the Questionnaire (1)



Source: Official photos from the former DMO of the Alqueva Reservoir (TGLA) with permission.

Appendix 8 - Photos used for Photo Ranking in the Questionnaire (2)



Source: Official photos from the former DMO of the Alqueva Reservoir (TGLA) with permission.

Appendix 9 - Photo Ranking Results for Photo-Based Image (PBI)/Model 2

Appendix 9 - Photo Ranking Results for Photo-Based Image (PBI)/Model 2

Categories	Variable/Name	Photo Ranking (%)				
		1	2	3	4	5
Natural Resources						
	Photo 1 (NR1)	0.6	1.2	7.6	50.6	40.0
	Photo 2 (NR2)	0.6	2.0	11.4	49.0	37.0
Infrastructures						
	Photo 3 (Inf1)	1.0	2.2	14.8	45.0	37.0
	Photo 4 (Inf2)	1.2	3.6	20.0	44.2	31.0
	Photo 5 (Inf3)	0.2	2.2	14.6	48.0	35.0
	Photo 6 (Inf4)	0.2	2.0	14.6	48.8	34.4
Tourist Leisure & Recreation						
	Photo 8 (TLR1)	0.4	2.0	8.4	46.0	43.2
	Photo 9 (TLR2)	1.2	2.4	20.6	41.6	32.2
	Photo 10 (TLR3)	0.6	2.6	21.6	42.8	32.4
Culture & Heritage						
	Photo 12 (CH1)	0.2	2.4	10.6	44.4	42.4
	Photo 13 (CH2)	0.2	1.0	12.2	43.4	43.2
	Photo 14 (CH3)	0.4	2.4	13.8	39.2	44.2
	Photo 15 (CH4)	0.8	2.2	20.6	42.2	34.0
	Photo 16 (CH5)	0.6	3.6	17.4	40.6	37.6
	Photo 17 (CH6)	0.2	1.4	10.8	37.2	50.2
	Photo 18 (CH7)	0.8	1.8	16.4	41.2	39.6
	Photo 19 (CH8)	0.0	1.4	9.4	36.0	53.0
Atmosphere						
	Photo 22 (Atmf1)	0.0	1.4	12.0	46.2	40.4
	Photo 23 (Atmf2)	0.4	1.8	11.8	38.4	47.6
	Photo 24 (Atmf3)	0.0	1.2	8.2	41.2	49.4
	Photo 25 (Atmf4)	0.8	2.8	14.0	37.6	44.8

Source: Own Elaboration

Appendix 10 – Authors Retained Copyrights Editors Statements

Appendix 10a - Authors Retained Copyrights Editors Statements (Paper 1/Tourismos)

TOURISMOS: AN INTERNATIONAL MULTIDISCIPLINARY JOURNAL OF TOURISM
Volume 6, Number 3, Winter 2011, pp. 93-110
UDC: 338.48+640(050)

A MULTIDISCIPLINARY APPROACH ON DESTINATION IMAGE CONSTRUCT

Ana Isabel Rodrigues
Polytechnic Institute of Beja

Antónia Correia
Algarve University

Metin Kozak
Mugla University

Destination image has a significant theoretical and practical contribution in tourism. Since the last four decades conceptual and empirical studies concerning this topic have been conducted. However, there is still a lack of theoretical framework due to the complex and multiple construct of destination image. This paper presents work in progress towards the development of a destination image model and intends to be a reflective thinking concerning image and destination image research. A review is provided and a way towards a theoretical framework based on an alternative approach is presented. Following the assumption that destination image construct is ambiguous a broader understanding grounded on a multidisciplinary approach is required. Recommendations are made for using this holistic conception on destination image research, aiming to a future development of an integrative model to be applied on the Alqueva Lake, the largest man-made lake of Europe, located in the south of Portugal.

Keywords: *Tourism, image, destination image, multidisciplinary approach*

JEL Classification: L83, M1, O1

INTRODUCTION

This theoretical paper presents work in progress towards the development of an integrative destination image model to be implemented in a lake area, located in the south of Portugal, the Alqueva Lake. The purpose of this paper is three-fold. Firstly, a reflective thinking for a broader concept of image is conducted. An insight into the multiple nature of the destination image construct, by highlighting different perspectives and perceptions is proposed. Image is a multifaceted construct whose

© University of the Aegean. Print ISSN: 1790-8418, Online ISSN: 1792-6521

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Appendix 10b - Authors Retained Copyrights Editors Statements (Paper 2/ Tourism Recreation Research)

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Responder Responder a Todos Reencaminhar Mover Eliminar Fechar

Tourism Recreation Research_Permission to use publication for PhD purposes
Ana Isabel Barros Pimentel Rodrigues

Mensagem reencaminhada em 23-07-2015 13:26.

Enviado: sexta-feira, 8 de Maio de 2015 16:01
Para: jonathan.manley@tandf.co.uk

Routledge, Taylor & Francis Group
Mr. Jonathan Manley,

The paper "Exploring the Life-Cycle Model Applied to Umbrella Constructs: Destination Image as an Example" co-authored with Professor Antónia Correia and Professor Metin Kozak, was published in Tourism Recreation Research in 2012 (Vol.37, Nº2) and is part of my PhD research which is in the final stage. Therefore, I come to ask your permission to use it for the purpose of integrating it in the body of my thesis. I also need to include your permission/response to this email in my thesis. The paper will be fully referenced as published in Tourism Recreation Research Journal. The thesis will be only available at University of Algarve repository (Portugal).

I would also like to thank you once again for the opportunity to publish in this Journal.

I look forward to hearing from you.

Best regards,

Ana Isabel Rodrigues
Polytechnic Institute of Beja (Portugal)
Management and Tourism Department
www.ipbeja.pt
ana.rodrigues@ipbeja.pt

Escreva aqui para procurar Esta Pasta Livro de Endereços Opções Terminar Sessão

Responder Responder a Todos Reencaminhar Mover Eliminar Fechar

RE: Tourism Recreation Research_Permission to use publication for PhD purposes
Manley, Jonathan [Jonathan.Manley@tandf.co.uk]

Respondida em 23-07-2015 13:11.

Enviado: quinta-feira, 23 de Julho de 2015 12:35
Para: Ana Isabel Barros Pimentel Rodrigues

Dear Ana (if I may)

I apologise for our slow reply. You have our permission to integrate your article into your thesis, with due acknowledgement to the original source.

With regards

Jonathan Manley - Publisher
Routledge, Taylor & Francis Group
4 Park Square, Milton Park, Abingdon, Oxon OX14 4RN, UK
Tel: +44 (0)20 7017 6387; mob +44 (0)7771375953
Fax:+44 (0)20 7017 6336
Web: <http://www.tandfonline.com>
email: jonathan.manley@tandf.co.uk

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-----Original Message-----
From: Ana Isabel Barros Pimentel Rodrigues [<mailto:ana.rodrigues@ipbeja.pt>]
Sent: 23 July 2015 11:28
To: Manley, Jonathan
Subject: FW: Tourism Recreation Research_Permission to use publication for PhD purposes

Mr. Jonathan Manley,

I apologize for disturbing you again with this subject. I have keep in contact with the Permission Team in order to have the permission to use "Exploring the Life-Cycle Model Applied to Umbrella Constructs: Destination Image as an Example", published in Tourism Recreation Research, 37 (2), 133-143, in the body of my PhD thesis."

I ask the permission, but I have a feedback saying that could take 3/4 weeks..I sent another email asking if it could be

Appendix 10c - Authors Retained Copyrights Editors Statements (Paper 3/Polish Journal of Natural Sciences)



Ana Isabel Rodrigues <aibprodrigues@gmail.com>

FW: Polish Journal of Natural Sciences_Permission to use publication for PhD purposes

2 messages

Aurelia Grejner <a.grejner@uwm.edu.pl>
To: aibprodrigues@gmail.com

24 June 2015 at 10:58

Dear Mrs. Ana Isabel Barros Pimentel Rodriguez,

Thank you for your e-mail. I'm very sorry for such late answer.

Hereby I give you my permission to use the paper "The Alqueva Reservoir in Portugal: Towards the Development of a New Lake Destination" co-authored with Professor Antonia Correia and Professor Metin Kozak published in "Polish Journal of Natural Sciences" in 2013. I give you my permission to use this paper for the purpose of integrating it in the body of your thesis.

Best regards,

Aurelia Grejner

Ana Isabel Rodrigues <aibprodrigues@gmail.com>

25 June 2015 at 11:31

To: a.grejner@uwm.edu.pl

Bcc: Ana Isabel Barros Pimentel Rodrigues <ana.rodrigues@ipbeja.pt>, Ana Isabel Rodrigues <aibprodrigues@gmail.com>

Dear Mrs. Aurelia Grejner,

Thank you very much for your email and your permission.

I think that this contact is sufficient for this process. If you don't mind I'll inform you if I need anything else.

Once again I would like to thank you the opportunity to publish in the "Polish Journal of Natural Sciences". It was really a pleasure.

Best regards,

Ana Isabel Rodrigues
Polytechnic Institute of Beja

Subject: FW: Polish Journal of Natural Sciences_Permission to use publication for PhD purposes

To: aibprodrigues@gmail.com

[Quoted text hidden]

Appendix 10d - Authors Retained Copyrights Editors Statements (Paper 4/Advances in Culture, Tourism and Hospitality Research)

Responder Responder a Todos Reencaminhar Mover Eliminar Fechar

FW: URGENT_RE: Your Emerald paper has been published
Chris Tutill [CTutill@emeraldinsight.com]

Respondida em 21-07-2015 11:58.

Enviado: terça-feira, 21 de Julho de 2015 11:36
Para: Ana Isabel Barros Pimentel Rodrigues

Dear Ana Isabel Rodrigues,

Thank you for your email.

Please allow me to introduce myself, my name is Chris Tutill and I am the Rights Assistant here at Emerald.

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I hope the above has answered your query but should you require any further information, please do not hesitate to contact me.

Thank you
&
Kind Regards,

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-----Original Message-----
From: Ana Isabel Barros Pimentel Rodrigues [<mailto:ana.rodrigues@ipbeja.pt>]
Sent: 19 July 2015 00:24
To: Lucy Spafford
Subject: URGENT_RE: Your Emerald paper has been published

Dear Mrs Lucy Spafford,

This paper "Lake-Destination Image Attributes: Content Analysis of Text and Pictures" co-authored with Professor Antónia Correia, Professor Metin Kozak and Anja Tuohino that was just published in Advances in Culture, Tourism and Hospitality Research is part of my PhD research which is in the final stage. Therefore, I come to ask your permission to use it for the purpose of integrating it in the body of my thesis. I also need to include your permission/response to this email in my thesis. The paper will be fully referenced as published in Tourism Recreation Research Journal. The thesis will be only available at University of Algarve repository (Portugal).

I would also like to thank you once again for the opportunity to publish in this Edit Book.

I look forward to hearing from you.

Best regards,

Ana Isabel Rodrigues
Polytechnic Institute of Beja (Portugal) Management and Tourism Department www.ipbeja.pt ana.rodrigues@ipbeja.pt



Ana Isabel Rodrigues <aibprodrigues@gmail.com>

**Editor_ Permission to use publication for PhD purposes_Advances in Culture,
Tourism and Hospitality Research (Vol. 10)**

1 message

Ana Isabel Barros Pimentel Rodrigues <ana.rodrigues@ipbeja.pt>
To: "aibprodrigues@gmail.com" <aibprodrigues@gmail.com>

21 July 2015 at 11:48

De: Arch Woodside [arch.woodside@bc.edu<<mailto:arch.woodside@bc.edu>>]
Enviado: segunda-feira, 20 de Julho de 2015 12:13
Para: Ana Isabel Barros Pimentel Rodrigues
Assunto: Re: Permission to use publication for PhD purposes_Advances in Culture, Tourism and Hospitality Research (Vol. 10)

Ana,

Yes. Of course, you have my permission for the following publications. The article 'Lake-Destination Image Attributes: Content Analysis of Text and Pictures' co-authored with Professor Antónia Correia, Professor Metin Kozak and Anja Tuohino that was recently published in Advances in Culture, Tourism and Hospitality Research (Vol. 10) is part of my PhD research which is in the final stage.

As the Editor of Advances you have my permission to use it for the purpose of integrating it in the body of your thesis. and permission/response to this email in your thesis. The paper will be fully referenced as published in Advances in Culture, Tourism and Hospitality Research (Vol. 10). The thesis will be only available at University of Algarve repository (Portugal).

Best wishes,
Arch
Arch G. Woodside
Editor, Advances in CTHR
BOSTONCOLLEGE

Appendix 10e - Authors Retained Copyrights Editors Statements (Paper 5/Editor Book Routledge)

24 June 2015

TO WHOM IT MAY CONCERN

Re: Lake-Destination Image Attributes: A Neural Network Content Analysis

I am pleased to confirm that the above-referenced paper, co-authored by Antónia Correia and Metin Kozak, has been reviewed and accepted for publication as a chapter in an edited book entitled *Destination Marketing*, edited by Professors Metin Kozak and Nazmi Kozak. The book will be released by Routledge in 2015.

Sincerely yours,



Dr. Metin Kozak
Co-editor, *Anatolia*
www.tandf.co.uk/journals/rana

Visiting Professor
School of Hotel and Tourism Management
Hong Kong Polytechnic University
17 Museum Street