EXPLORING THE BENEFITS OF USING A MIXED METHODS APPROACH IN DESTINATION IMAGE STUDIES

AS VANTAGENS NA ADOÇÃO DE MÉTODOS MISTOS EM ESTUDOS DE IMAGEM DE DESTINOS

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Abstract: This study aims to demonstrate that mixed-methods are suitable when assessing the image of a tourism destination. Depict the image attributes that influence a lake destination area and conceptualize lake tourism are the goals of this study. Lake tourism is a growing academic field of tourism studies. However, little attention has been given to tourism images. The case is the newly-formed Alqueva Lake, Portugal, the biggest man-made lake in Europe. A mixed-design method was adopted, particularly a *complementarity* approach. The data were first collected in the qualitative stage, then analysed. Results were used to develop a follow-up questionnaire. A set of image attributes that best describe Alqueva Lake was obtained and validated. The advantages of adopting mixed-methods to studies about destination image are discussed.

Keywords: Tourism; Destination Image; Lake Tourism; Mixed-Methods; Alqueva Lake.

Resumo: O estudo objetiva demonstrar que métodos mistos são adequados para avaliar a imagem de um destino turístico, bem como descrever os atributos de imagem que influenciam em uma área de destino de lagos e conceitualizar o turismo de lagos. O caso em estudo é o recém formado "Lago Alqueva em Portugal", o maior lago feito pelo homem, na Europa. Foi adotado um método misto de *design*, particularmente, uma abordagem de complementaridade. Inicialmente foram coletados os dados em um estágio qualitativo e, então, analisados. Os resultados foram usados para desenvolver um questionário de acompanhamento. Foi obtido um conjunto de atributos de imagem que melhor descrevem o Alqueva. São discutidas vantagens de adotarem-se métodos mistos para estudos de imagens de destino.

Palavras-chave: Turismo; Imagem de Destinos; Turismo de Lagos; Métodos Mistos; Lago do Alqueva.

1 Introdução

Over the last forty five years of research, destination image (DI) has been difficult to investigate because of their complex, multiple, relativistic, and dynamic nature. Fundamentally, three lines of thought for measuring this construct during the last four decades have evolved within an evolutionary perspective (RODRIGUES; CORREIA;

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KOZAK, 2012). At a first stage (during the 1970s and 1980s) a positivist approach was adopted, essentially based on structured methods where DI was mainly measured using quantitative methods. However, these methods and techniques frequently did not capture the DI as an `umbrella construct´ that includes vague and elusive meanings, which is considered as a "global unit that stands for an entire complex thing" (DUBIN, 1969, p. 60), which draws together a great number of properties interacting with each other, but without explaining how and under what circumstances they interact.

In the 1990s and 2000s relying on a more constructivist critical view of the research process, a qualitative approach was proposed in order to better capture DI as a complex construct. 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; RITCHIE, 1991) assessed DI in terms of attribute lists and not in terms of holistic impressions. All the components of DI were not being fully captured. As a consequence, researchers have realized that a combination of structured and unstructured methodologies should be used (ECHTNER; RITCHIE, 1991, 1993; JENKINS, 1999).

It seems also important to highlight that alternative means of image assessment, such as the qualitative approach and techniques, lies in a shift of consumer behaviour theory regarding information processing. The discursive or descriptive information processing mode gave birth to a form of imagery processing that is characterized as a mode in which multisensory information is represented in a more *gestalt* form in the working memory, where imagery is evoked by sensory experiences (MACINNIS; PRICE, 1987). Holbrook and Hirschman (1982) named it as the "experiential view", the consumption act or the "hedonic consumption" (HOLBROOK; HIRSCHMAN; 1982), where images are assumed as an important stimulus in a multisensory consumption act.

Despite the fact that mixing quantitative and qualitative methods is increasingly popular in DI research, there is insufficient theoretical rationale for doing so. This paper aims to discuss that the use of mixed methods research (MMR) is the most appropriate procedure for measuring DI and, stress how this methodology can add value in terms of increase confidence on findings. Its seems quite odd that so little attention has been paid to theoretical and organizational issues and prospects related to the integration of multiple research methods within this field. The main reason for the application of a multimethod

approach is more related to an empirical concerned in terms of DI assessment, without discussing it conceptually.

The underlying foundation of this study 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 "the field of tourism needs to embrace a general recognition of the legitimacy of a variety of research tools" (WALLE, 1997, p. 535).

With this in mind this research attempts to explore, discuss that the use of a mixed-method approach is considered as being a superior means for researching DI issues (RODRIGUES; CORREIA; KOZAK, 2016). In order to do that the focus of this study lies on a process for conceptualizing and measure a lake destination image using a mixed-method research approach, specifically an exploratory sequential design. In fact, results of an investigation based on an image assessment of a lake-destination area, such as the Alqueva Lake located in Portugal, will be presented and analyzed. Finally, a model for incorporating the rationale and purpose for conducting MMR in DI will be discussed.

2 Literature review

2.1 Destination image

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 destination image found in the literature between the 1970s and 1990s (RODRIGUES; CORREIA; KOZAK, 2012). More recently, in the 2000s, a great number of researchers still agree that image is an "overall impression" or a "combination". For Martin e Rodriguez Del Bosque (2008) it is a "multi-dimensional phenomenon"; and, finally, a two-sided definition as a "combination of what is communicated by a destination and what is understood by the tourists" (ROLO-VELA, 2009, p. 419). Destination image, is definitely, multidimensional (ECHTNER; RITCHIE, 1993; BALOGLU; McCLEARY, 1999), an "umbrella construct", a kind of catch-all concept "of several theoretical categories that continuously appear in the literature"

(RODRIGUES; CORREIA; KOZAK, 2012, p. 138). Some authors have even highlighted the misunderstanding between destination image construct and others, such as brand image (TASCI; KOZAK, 2006).

The analysis of the destination image concept unquestionably requires examining the nature of the concept (MARTIN; RODRIGUEZ DEL BOSQUE, 2008) or its structure (BOO; BUSSER, 2005). More concretely, it is necessary to distinguish the main streams of destination image research. In the beginning of the life cycle of the destination image construct (1970s and 1980s), the cognitive component emerged as the most important dimension in the composition of destination image (GARTNER, 1986). Moreover, within the cognitive component there were functional elements of destination image that prevailed (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 embrace by Etchner and Ritchie's (1993) three-dimensional approach, one of the most cited scales in destination image research. In conclusion, destination image is constituted by different components or dimensions, which are perceived differently by tourists and deserve special attention for marketing positioning strategies. Hence, an analysis of image based on their components should be then investigated (AHMED, 1991).

Regarding the measurement of destination image construct over the decades, an attribute-intensive directive has prevailed in data collection and analysis techniques. Since destination image is a multi-attribute construct its measurement has been focused on multi-attribute-based images, grounded only on quantitative methods and techniques.

Nevertheless, the inconsistencies between conceptualization and operationalization of the construct have been continuously pointed out (ECHTNER; RITCHIE, 1991; GALLARZA; SAURA; GARCIA, 2002). Therefore, new measurement approaches started to emerge in the 1990s. As a consequence of a new cycle in terms of destination image theorizing, alternative methods of measuring destination image soon come to light. New methodological procedures based on qualitative methods (JENKINS, 1999) were proposed, such as the example of free-elicitation technique (REILLY, 1990) or visual-based studies (JACOBSEN, 2007). These new perspectives on destination image research, which arose in the 1990s and were strengthened in the 2000s, contribute to exploring new ways of perceiving image attributes, framed by a more interpretivist paradigm that will "enlarge and deepen our understanding of what it means to be human in this more-than-human realm" (ANGEN, 2000, p. 380).

2.2 Lake tourism

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; 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, 2007).

Lake tourism as a concept is multifactorial. Lake tourism is not only tourism on the lake itself, but also in the surrounding areas of the lakes (TUOHINO, 2008). For some authors (COOPER, 2006) lake tourism is very much based on rural experiences characterized by nautical activities and shoreline home development. But they are more than that. A part from being a natural feature, lakes also support human life and some of them dating back thousands of years, with a valuable cultural heritage that should be shared. For this, 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; 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 (KOIVULA et al. 2005; SAARINEN, 2004).

Regarding the link between lakes and tourism, it seems important to mention Cooper´s though for whom,

> In terms of the analysis of tourism destinations, lakes are significant. They represent the attraction element of a destination as they generate the visit to the region. As such, they are often the core of a destination's attractiveness – as at Lake Balaton in Hungary or the English Lake District. Lakes represent resource-based tourism attractions, demanding high levels of management and coordination between users (HALL; HÄRKÖNEN, 2006, p. 28).

In fact, there are several examples of lake-based destinations aound the world, where regional or local attractions are mainly based on a lake resource. On February 8th in 2002 the dam gates of the Alqueva Reservoir, located in the Alentejo region, were closed and reservoir started to fill up. In the case of the 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; ZOLTÁN; LÓRÁNT, 2010). This new resource gave to the Alentejo region a total new existence economically and environmentally speaking (RODRIGUES; CORREIA; KOZAK, 2013).

Aiming to investigate the Alqueva Lake as a totally new lake-destination area (LDA) the awareness of the complexity of phenomenon soon emerged, since the management of any lake requires an integrated management approach. The presenT study presupposes then that due to the complexity of a lacustrine tourist system the 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 and Kozak (2010) posit that the probability of choice by tourists is strongly affected by different attributes related to destination characteristics, among other variables.

Image analysis and management is, in fact, a key tool for destination competitiveness. Since positioning a destination requires a process of simplifying a large number of associations and ideas connected with the place, creating an image reveals as a fundamental step in order to reach that. Image means work on focused and clarified messages and destinations should be oriented to target positioning in their own competitiveness set through that image (KOZAK; RIMMINGTON, 1999). In sum, image is considered a key construct in destination positioning, conclude Pike and Ryan (2004).

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 a lake-destination image, in order to improve the LDA competitiveness. Indeed, a "successful lake-destination area marketing is tied to a strong destination image" (ERKKILÄ, 2006, p. 211). Actually, the

fact that the regional tourist organization of Alentejo is now defining a vision and a strategy for the Alqueva Lake until 2020 entirely justifies and validates the present study.

3 Aims of the study and research design

In response to the previous observations and concerns, this study 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 study also attempts to contribute to enrich lake tourism as a recent typology of tourism and as a new field of tourism studies. In addition, the underlying foundation of this study 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).

Framed by this discussion this study (RODRIGUES, 2015) soon posed the following question: *Since the Alqueva Lake is at the very beginning as an lake-destination area, 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 study 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.

Considering the goals of this study, not only to extract and identify a set of image variables that might form the image of lake-destination areas, but also to investigate the nature and the concept of lake tourism, in order to contribute to a theory building process, this study advocates that a MMR approach, first qualitative and then quantitative should be the most suitable way to more freely extract a complete image of a place. In the last decade multimethod studies have been increasing in this field of research (MARTÍN; RODRÍGUEZ DEL BOSQUE, 2008; O'LEARY; 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, 2004), which might suggest that the characteristics of a specific destination have not been taken into consideration when an image assessment occurs.

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; PLANO CLARK, 2011). This approach is based on the pragmatic paradigm supported by pragmatic researchers (ONWUEGBUZIE; LEECH, 2005) or the 'third methodological community' (TEDDLIE; TASHAKKORI, 2012) for whom qualitative and quantitative research strategies are neither mutually exclusive nor interchangeable, but understood as an 'interactive continuum' (NEWMAN; BENZ, 1998). Therefore, 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; CARACELLI; GRAHAM, 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; RODRIGUEZ 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; 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 study is simultaneously illustrating the utility of a mixed-methods design applied to a DI study.

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 desi**'** 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; PLANO CLARK, 2011, p. 187). In this study the methodological approach is then comprised of a three-phase model (Figure 1) with an initial or preliminary phase to specify the domain of the constructs and identify the main DI attributes in existing literature.
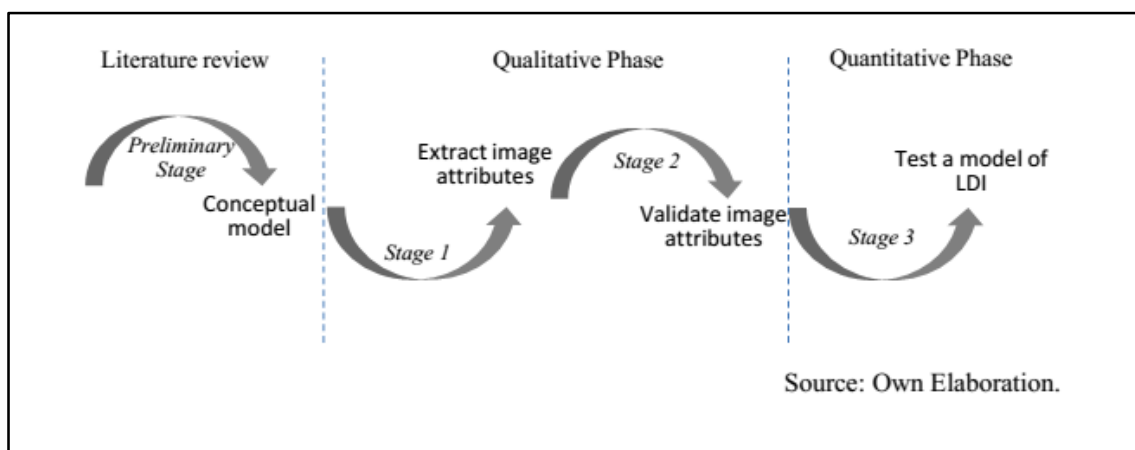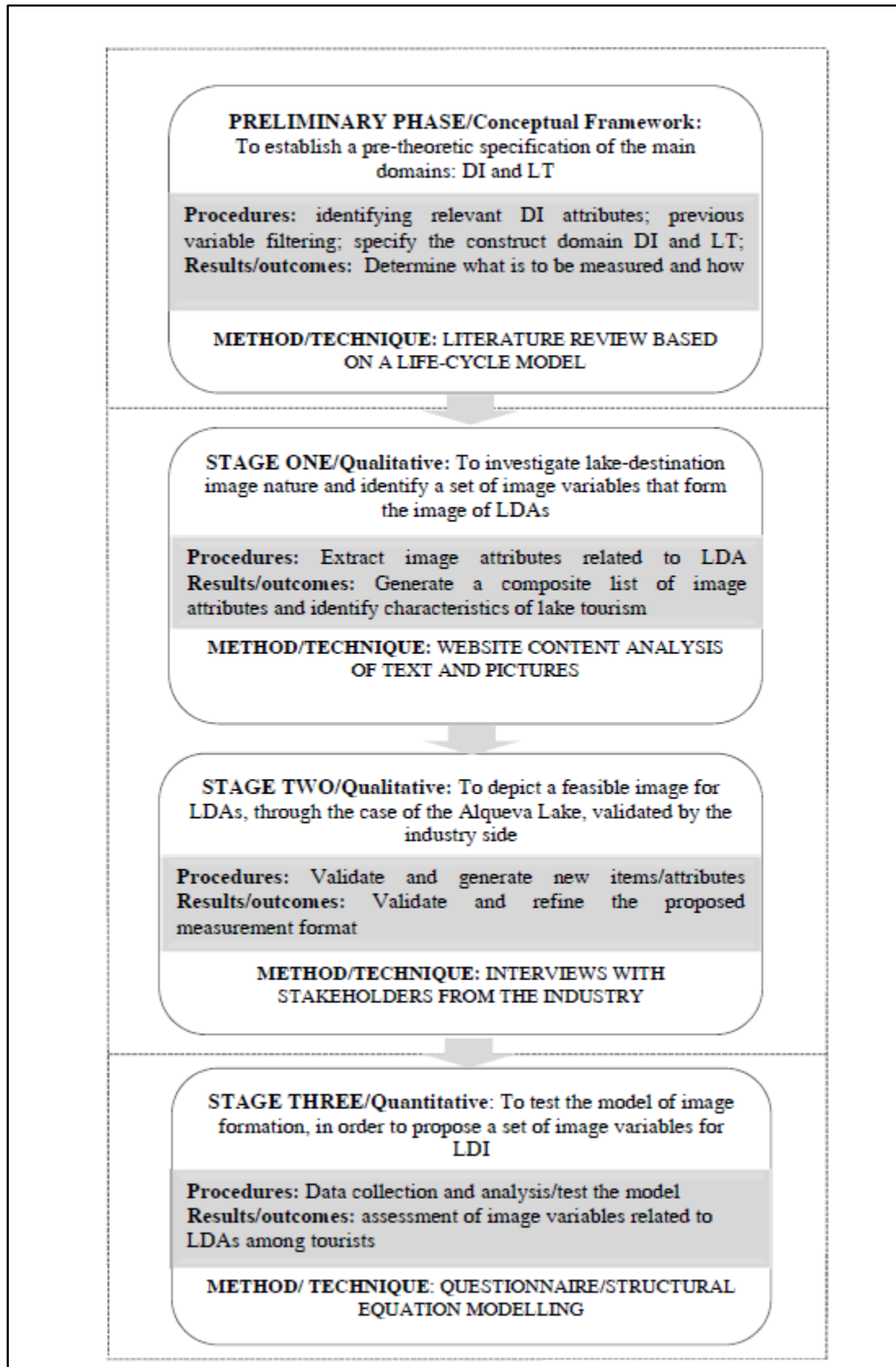

Figure 1: Methodological Approach: Three-Phase Model
Source: Rodrigues, 2015.

Firstly, stage one to extract image attributes more related to LDA and explore lake tourism concept; secondly, stage two to assess the applicability of items/attributes in an existing LDA, and stage three to test a lake a model of lake-destination image. Website content-analysis and semi-structured interviews with stakeholders from the tourism industry were carried out. A questionnaire was designed and implemented to collect data from tourists visiting the Alqueva Lake.

Figure 2 illustrates in detail the research design of this exploratory mixed-method study, and it was developed according general rules for drawing visual models for mixed-methods designs (IVANKOVA et al. 2006). This graphical representation helps to portray the sequence of the research activities in a mixed-method study (TASHAKKORI; TEDDLIE, 1998; CRESWELL, 2003). 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 of the stages of the study.

In conclusion, 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; PLANO CLARK, 2011; CRESWELL, 2003), which implies collecting data either simultaneously or sequentially in order to understand the research problem (in this case sequentially).

PRELIMINARY PHASE/Conceptual Framework:
To establish a pre-theoretic specification of the main
domains: DI and LT

Procedures: identifying relevant DI attributes; previous
variable filtering; specify the construct domain DI and LT;
Results/outcomes: Determine what is to be measured and how

METHOD/TECHNIQUE: LITERATURE REVIEW BASED
ON A LIFE-CYCLE MODEL

STAGE ONE/Qualitative: To investigate lake-destination
image nature and identify a set of image variables that form
the image of LDAs

Procedures: Extract image attributes related to LDA
Results/outcomes: Generate a composite list of image
attributes and identify characteristics of lake tourism

METHOD/TECHNIQUE: WEBSITE CONTENT ANALYSIS
OF TEXT AND PICTURES

STAGE TWO/Qualitative: To depict a feasible image for
LDAs, through the case of the Alqueva Lake, validated by the
industry side

Procedures: Validate and generate new items/attributes
Results/outcomes: Validate and refine the proposed
measurement format

METHOD/TECHNIQUE: INTERVIEWS WITH
STAKEHOLDERS FROM THE INDUSTRY

STAGE THREE/Quantitative: To test the model of image
formation, in order to propose a set of image variables for
LDI

Procedures: Data collection and analysis/test the model
Results/outcomes: assessment of image variables related to
LDAs among tourists

METHOD/ TECHNIQUE: QUESTIONNAIRE/STRUCTURAL
EQUATION MODELLING

Figure 2: Research Design based on MMR
Source: Rodrigues, 2015.

4 Results

A mixed methods study involves qualitative and quantitative data collection and includes an explanation of how the two types of data were mixed: merged, connected, or embedded (CRESWELL; PLANO CLARK, 2011). In this paper the results and inferences from the three stages are presented individually, but the next section of this paper will explain how the results from each phase are connected**.**

4.1 Stage 1: extract image attributes (website content analysis of text and pictures)

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, 1980; BARDIN, 1979). From this perspective "photographs, videotapes, or any other item that can be made into text are amenable to content analysis" (MILES; HUBERMAN, 1994, p. 240). As Krippendorff 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." (KRIPPENDORFF, 1980, p. 23). 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 (STEPCHENKOVA; MILLS, 2010). The analytic procedure was based on the general stages of content-analysis procedure in Krippendorff's (1980) 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 general objective of this stage is reflected in the following research question:

RQ1: *What are the image attributes most specifically related to lake tourism and LDAs, and simultaneously, what defines lake tourism as a recent sub-field of tourism studies?*

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 lake tourism and LDA, identifying their main dimensions/characteristics.

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; 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; JAMES, 1988; GOVERS; 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 us 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) (SOUSA; COSTA; MOREIRA, 2011).

4.2 Stage two: validate image attributes (content analysis of interviews to the industry)

This stage aims to contribute 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 lake-destination image and enrich a theory-building process in regard to this recent field of research. 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; RYAN; PANAKERA, 2003).

Thereupon, the purpose of the current research intends to respond to the following research question: *What is the image more feasible for lake-destinations areas, based on the case of the Alqueva Lake and validated by the industry side?* The goal was 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. The sample included seventeen semi-structured interviews, which followed a selective and purposeful strategy (COYNE, 1997), 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 (FAIRWEATHER; SWAFFIELD, 2002; MACKAY; FESENMAIER, 1997). Various experts professionally involved with the tourism industry were selected as key-informants, such as Public Administration, accommodation, tourist guides, and the outdoor tourism sector. 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.

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 previous results, which identified a list of image attributes specifically related to

LDAs. Regarding free-elicitation, this technique was also used to enrich the results (OLSON; MUDERRISOGLU, 1979), in which respondents are free to say anything and everything that comes to mind when presented with a stimulus (O'LEARY; DEEGAN, 2005; 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 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 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.

4.3 Stage three: test a model of lake destination image (questionnaires to the tourists)

The purpose of this stage was 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"), 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. 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 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.

5 Conclusion

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; LÓRÁNT, 2012); (ii) by advancing research in DI studies through exploring non-traditional destinations and types of tourism scarcely investigated before.

Methodologically speaking this study 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, 2003; CRESWELL; PLANO CLARK, 2011; TEDDLIE; 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 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" (HEISLY, 2001, p. 45)

Further, a feasible image for LDAs is depicted through the case of the Alqueva Lake. A set of 37 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 qualitative 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 tourism board), since image building, brand creation and marketing positioning might be set up.

Finally, the findings of this study also bring useful insights to the advantages of adopting a mixed-methods approach to destination image studies, in order to explore it in future research.

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