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Nature-Based Tourism in Mallorca's Natural Areas

The Benefits of Tourism for Natural Areas

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Luisa Wolter

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The Benefits of Tourism
for Natural Areas

With forewords by Prof. Dr. Louisa Klemmer
and Prof. Dr. Harald Zeiss

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Foreword

This thesis was written in partial fulfilment of the requirements for the degree of Master of Arts in *Tourism and Destination Development* at the University of Applied Sciences Hochschule Harz. Ms Luisa Wolter examined tourist demand for sustainable products within the natural parks on the Spanish island of Mallorca and was supported in her work by the Govern de les Illes Balears.

Based on a thorough literature review, the motivations and interest of over 400 tourists for sustainable activities and products were empirically examined. Visitor motivation profiles were created using exploratory factor analysis in order to then examine tourist satisfaction levels with the existing products, as well as interest and preferences for various sustainable products using both correlation analyses and analyses of variance. Based on the findings, recommendations for new sustainable tourism product developments were made. Based on Ms Wolter's work, the natural parks can develop new products and marketing strategies adapted to their current visitor profiles in order to contribute to the promotion of a more sustainable tourism development within the region.

Louisa Klemmer

Geleitwort

Die vorliegende Arbeit von Frau Luisa Wolter wurde an der Hochschule Harz in Wernigerode am Institut für Tourismusforschung (ITF) im Rahmen des Master-Studienganges „Tourism and Destination Development“ verfasst. Betreut wurde die Arbeit von Frau Prof. Dr. Louisa Klemmer und Herrn Prof. Dr. Harald Zeiss. Beide Betreuer haben ihren Forschungsschwerpunkt im Bereich Nachhaltiger Tourismus. Prof. Zeiss leitet darüber hinaus das Institut für nachhaltigen Tourismus (Inatour) in Hannover.

Die zentrale Fragestellung der Arbeit von Frau Wolter liegt in der Prüfung, ob und inwieweit Naturparkbesucher auf Mallorca Interesse an nachhaltigen touristischen Produkten haben. Die aus der Analyse gewonnenen Erkenntnisse werden zur Definition von Besucherprofilen herangezogen, welche als Grundlage bzw. Handlungsempfehlungen für die Erstellung neuer, maßgeschneiderter touristischer Produkte auf der größten Insel der Balearen dienen. Die Untersuchung erfolgte mittels einer quantitativen Vor-Ort-Besuchenumfrage mit 423 Touristen aus Deutschland und Großbritannien. Als Auswertungsmethode wurden die explorative Faktorenanalyse sowie die Korrelations- und Varianzanalyse angewendet.

Wissenschaftliche Untersuchungen im Bereich Naturtourismus untersuchen meist nur einzelne spezifische Tourismusformen. Die vorliegende Untersuchung hat durch den empirischen Ansatz eine besondere wissenschaftliche Bedeutung. Die Erstellung der Besucherprofile und die damit verbundene Produktgestaltung sind darüber hinaus von hohem Nutzen für die Praxis. Trotz des empirischen Schwerpunkts der Arbeit wird aber auch ein sehr guter und ausführlicher Überblick über den theoretischen Stand im Bereich des Naturtourismus gegeben, insbesondere zu den vier Formen Agri-, Abenteuer-, Wildlife- und Eco-Tourismus.

Die Arbeit wurde vom Govern de les Illes Balears unterstützt und gefördert.

Harald Zeiss

Preface

The last two years I spent in the Tourism and Destination Development master's program at Hochschule Harz were the most instructive of my student life. I grew personally and professionally in a way I would never have expected. I would like to thank every single person who accompanied me on this journey and made me a stronger person.

Particularly, I would like to thank my parents for their continuous support and love, and for "letting me do my own thing and go M.I.A." – Mom, you will certainly get to see your daughter more often in the near future! Promised. My brother and soul mate Stefan always made me laugh when I felt like crying and brought me back to the sunny side of life. I would like to thank him for his eternal love and care – I could not ask for a better brother.

I would like to thank Prof. Dr. Harald Zeiss, without whom I would never have had the chance to work on this amazing project. Many thanks to Neus Lliteras Reche for making this project possible. Furthermore, I would also like to thank Maria Francesca López Cortès from the bottom of my heart for her help and support, for being like a sister and for providing me a second home in Palma. ¡Mil gràcies, Cuca! I am also thankful for the support of the employees at Parc Natural de s'Albufera and Llevant. Without the help of my brother and all the tourists who were willing to answer my questions I would not have been able to collect the data necessary. Thank you all.

Most of all and from the depths of my heart, I would like to sincerely thank my mentor and role model, Prof. Dr. Louisa Klemmer, for her constant support, trust and belief in me. She always encouraged me to go the extra mile and to accept the challenge of conducting this research. When I felt like failing, it was her guidance and expertise that helped me to "see the big picture" again. Having found my mentor in her was the best that happened to me during the course of my studies. None of the existing words seems to be sufficient to express and describe my gratefulness properly. I will be eternally thankful that I had the opportunity to meet and have her as my mentor. She has been everything that one could want in an adviser.

Moreover, I would like to thank my friends for being that supportive during the last couple of months. A special thanks to Ellen Meier for sharing her knowledge about psychology and the secrets of putting together a questionnaire. Many thanks to Vivien Nasick for her wise advice on tourism research that she provided me from the very first to the very last minute of writing this thesis. I am also very thankful to my dear friend Katrin Meilke for always cheering me up and giving me positive energy. Christin Hobusch, I would like to thank you for your support and giving me encour-

agement since we have met as undergraduates. My best friend Christoph Hillmann keeps surprising me with his understanding and love. I am also extremely grateful to my female soul mate Melissa Lynn Perez for always taking care of me from the far Floridian sun. I have been deeply touched and moved to tears by having you all believing in me.

Additionally, I would like to thank my colleague Marietta Müller for her warm welcome at work and for distracting me from my academic worries three times a week and during several late-night walks.

Writing this thesis was like a ride on the rollercoaster. After the rain came sunshine, and vice versa. But I truly appreciate every single minute of this experience and I count myself lucky to have had this unique research opportunity and the greatest support I could ever have asked for.

In the end, the big picture is truly complete and to say it in the words of my academic mother Louisa Klemmer – *“Life is good, life is real good”*.

Luisa Wolter
Wernigerode, September 2013

Abstract

Nature-based tourism studies have mainly researched what specific forms are like or what nature-based tourists do, instead of studying what they would like to experience and in which way.

According to the definition of sustainable tourism, it addresses the needs of the destination and those of the tourists. Hence, it also is of paramount importance to understand the motivation and interest of nature-based tourists to make sustainable development feasible, matching theoretical guidelines and actual demand. Therefore, the primary purpose of this study was to investigate motivations of nature-based tourists visiting natural parks. A secondary purpose was to analyze their satisfaction with the existing park offer, and interest in and importance of sustainable products and willingness to pay for these products. The data for this study were collected from tourists in the two natural parks s'Albufera and Llevant in the North of Mallorca, in support of El Govern de les Illes Balears. A total of 423 park visitors were approached in 11 days and 402 agreed to complete the questionnaire, which resulted in a 95% response rate.

This study found four distinct motivational dimensions among the visitors in the natural parks s'Albufera and Llevant, respectively, identifying an overlap of different forms of nature-based tourism. Overall, educational products/ offers are of high interest among all visitors, however, a large part also indicated that imparting knowledge should be combined with an experience/ fun factor. Except for only one motivational group, all other visitors placed high importance on sustainable product characteristics, such as conservation of nature and involvement of the local community. By examining natural park visitors' motivations and interests, natural area managements can develop new products and marketing strategies that address their very own visitors, contribute to the sustainable development of their region and influence the visitors' views and behaviors by raising environmental awareness.

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List of Abbreviations

ATTA	-	Adventure Travel Trade Association
CuEx	-	Culture-Explorer
DNL	-	Dedicated Nature-Lover
GSTC	-	Global Sustainable Tourism Council
IUCN	-	International Union for Conservation of Nature
NS	-	Nature-Scout
PA	-	Protected Area
SC	-	Self-Challenger
TALC	-	Tourist Area Life Cycle
TIES	-	The International Ecotourism Society
WCED	-	World Commission on Environment & Development
WTO	-	World Tourism Organization
WTTC	-	World Travel and Tourism Council

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Chapter 1

Introduction

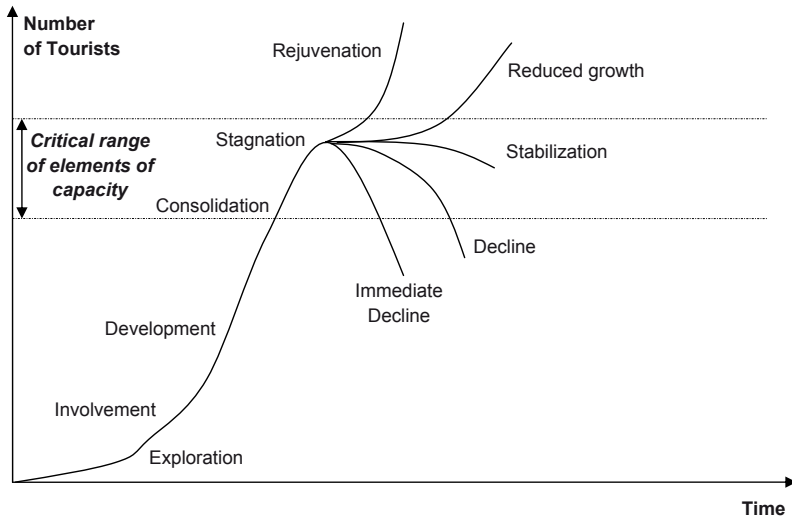
“Over the decades, tourism has experienced continued growth and deepening diversification to become one of the fastest growing economic sectors in the world” (UNWTO, 2013a). A look at the numbers of international tourist arrivals confirms this statement: the number grew from 277 million in 1980 to 1,035 billion in 2012 (UNWTO, 2012, 2013b). With a contribution of approximately 5% to the gross domestic product, the tourism industry has even surpassed the food and automobile industry (UNWTO, 2013a).

The World Tourism Organization (WTO) defines tourism as “(...) the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes” (2002, p. 101).

Tourism takes place all over the world, both in urban and natural areas, and it may favor the development of a country and can create economic, environmental and social benefits for a destination’s community. However, it does not have only positive impacts, taking the example of development of tourism on Mallorca.

"Simple, calm Majorca is a green Switzerland beneath a Calabrian sky, and with the silent solemnity of the Orient" (Sand, 1855 cited in Paul, 2005, p. 28) – that is how the Balearic Island was described by the French writer and one of the pioneering tourists to Mallorca, George Sand, back in 1838. Her book attracted many royal and aristocratic figures from all over Europe during the second half of the 19th century and led to the first stage of destination development - exploration of the island, according to Butler’s (1980) Tourist Area Life Cycle (TALC) (see Figure 1.1).

Figure 1.1 Tourist Area Life Cycle (TALC)



Source: Adapted from Butler, 1980

In order to meet the demand of the increasing number of tourists arriving between 1900 and 1960, the Mallorcan Tourism Board, *Fomento del Turismo*, was founded and also the local community realized the enormous potential of the island. Infrastructure was improved; hotels, attractions and entertainment facilities were built. Until World War II, "(...)" which brought tourism to a temporarily halt" (Haak, 2009, p. 32) about 40,000 tourists had visited the island. After the war and with increasing income, Europeans rediscovered Mallorca as a destination (Barceló, 1990).

The development of the destination for mass tourism started in the early 1960s, with 360,000 visitors a year at that time. Only 27 years later, the number of tourists rose up to five million. A once agricultural-oriented community turned into a modern service society (Haak, 2009).

Since Mallorca has turned into a well-known sun and beach tourism destination in the 1960s, high investments in mass tourism facilities construction led to environmental deterioration and high consumption of its natural resources. This exploitative development, also known as the process of *deCOASTruction* (Cabellos, 2012), led to the image of overcrowded beaches and coastlines, indicating a missing sustainable tourism-policy. Ever since, Mallorca is perceived as a holiday destination for package travel, sun and beach and party tourism. As in most cases, Mallorca entered the consolidation stage (see Figure 1.1) after the attacks on September 11,

but a downward trend could already be recognized before, probably because of its negative image as a mass tourism destination, most of all popular among German and British people. "Therefore, Mallorca intends to eliminate the bad reputation through focusing on quality instead of quantity" (Haak, 2009, p. 27).

With new market segments emerging, such as sports tourism, wellness tourism, cultural tourism, and congress and incentive tourism, the number of tourists started increasing again after 2003 and reached 11,317,291 in 2012 (ATB, 2013). But still, Mallorca is perceived as a mass tourism destination where most of all coastlines are overcrowded. The island needs to change its strategy of tourism development by making use of its natural assets, promoting and protecting them at the same time in order to diversify its demand and reallocate the masses of visitors, and hence, reposition its destination image.

Due to the industry's rapid growth, more and more of the tourism industry's stakeholders worldwide recognize its pressures and therefore, the need to protect a destination's environmental, social and cultural heritage (UNEP, 2002). However, the economic potential of tourism should not be reduced or limited. The concept of sustainable tourism development (defined further below in Chapter 2) takes these requirements into account.

As the development of Mallorca's natural areas for tourism is focused in this study, this research is based on the framework of sustainable tourism, which is defined as "tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities" (UNEP & UNWTO 2005, p. 12). Retaining both, economic and social advantages of tourism development, and reducing negative impacts on the environment, are the objectives of sustainable tourism.

1.1 Statement of the Problem

It has been acknowledged that tourism in protected areas causes pressure on the environment (Eagles et al., 2002; Rossi, 2002; UNEP & UNWTO, 2005; Buckley, 2011) and therefore, a sustainable approach of development is essential (Eagles et al., 2002; Zhenhua, 2003; UNEP & UNWTO, 2005).

In past studies, where tourism in protected areas is heavily researched, the main focus is on: principles and guidelines for park management (Eagles et. al, 2002; UNEP & UNWTO, 2005; Buckley, 2009c), impacts (Pickering et al., 2003; Strickland-Munro et al., 2010; Belsoy et al., 2012), visitor numbers (Eagles et al., 2000;

Mason, 2005; Shultis & More, 2011), financing (Font et al., 2004; Eagles & Hillel, 2008; Crompton, 2011), and access and partnerships (Kaltenborn et al., 2001; Pfueller et al., 2011).

However, it seems as if there is a gap in research in terms of focusing on the protected areas' visitors. According to the definition of sustainable tourism, it addresses the needs of the destination and those of the tourists. Hence, it also is of paramount importance to understand the motivation and interest of park visitors to make sustainable development feasible, matching theoretical guidelines and actual demand. Therefore, the primary purpose of this study was to investigate motivations of nature-based tourists visiting natural parks on Mallorca. A secondary purpose was to analyze their satisfaction with the existing park offer, and interest in and importance of sustainable products and willingness to pay for these products in order to determine different visitor park profiles and suggest suitable products.

Please note

Instead of the English name *Majorca*, the author decided to apply the denomination *Mallorca* as this name is originated in Mallorquin and Spanish as the official languages of the island. Moreover, all proper nouns in this thesis are written in Mallorquin as the author wants to support the current language issue on the island concerning whether Mallorquin should be kept as the first official language or not.

1.2 Research Questions

This study was undertaken to answer the following research questions:

Overall: How can Mallorca's natural parks be used to develop sustainable tourism products?

1. What are tourists' main motivations when visiting the natural parks?
2. How satisfied are tourists with the presently existing products?
3. What type of products/ offers would be desirable from the tourist perspective?
4. What would tourists be willing to pay for such products?

1.3 Contribution of the Study

Nature-based tourists' motivations have been widely studied, but research has concentrated mainly on specific types of nature-based tourists (such as ecotourists, bird-watchers or wildlife tourists). Studies were carried out focusing the tourists' activity (Hvenegaard, 2002; Meisel & Cottrell, 2003; Parsons et al., 2003; Eubanks et al., 2004; Kwan et al., 2008) which led automatically to their classification, for instance tourists taking part in whale-watching activities were determined as whale-watchers. Earlier studies have mainly researched what different forms of nature-based tourism are like or what they do, instead of studying what they would like. This study proposes to extend previous studies by measuring motivations with items derived from relevant literature, but with the difference that research concentrates not only on motivation but also on interest which will lead to a better understanding of tourist types in natural parks in order to specify their demand and create suitable products/ offers.

1.4 Delimitations

This study was delimited to German and British tourists who were 14 years and older visiting the two natural parks s'Albufera and Llevant in the North of Mallorca between May 15th and June 1st 2013. As the German and British tourists represent the two biggest guest segments of all arriving visitors on Mallorca (approx. 56%) and the Balearic Government expressed high interest in the two groups, this research was delimited to these two nationalities only (Agencia de Turismo de les Illes Balears 2012).

1.5 Limitations

The findings are not generalizable to all groups of tourists on Mallorca, due to sampling of visitors from Germany and the UK only. Additionally, this research was only undertaken during spring. Findings may differ depending on the season of the year. Moreover, recommendations given are based on the type and nature of the parks. Therefore, it has to be taken into account that products/ offers have to be customized to the natural circumstances and may vary depending on the type of protected area researched.

1.6 Definitions

The following terms were used as defined within the context of this study:

- **Nature-Based Tourism:** Tourism that depends on nature and natural settings (Hall & Boyd, 2005). In this study, nature-based tourism is defined as outdoor tourism activities in natural areas.
- **Sustainable Tourism:** “Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities” (UNEP & UN-WTO 2005, p. 12).
- **Demand:** Demand in economics is defined through the consumer’s desire, the willingness and ability to pay for the desired good/ product (Gupta, 2006).
- **Motivation:** Motivation is described as a state of need that makes individuals take particular actions or activities to satisfy their needs (Brown, 2007).
- **Natural Area:** A natural area is an area of unique ecological, scenic, historic or geologic value, usually protected to maintain its natural condition and character (Dudley, 2008).

Chapter 2

Literature Review

The literature related to the examination of nature-based tourists in natural areas, their impacts and sustainable tourism development is presented in this chapter. The chapter is organized in four major sections:

1. Sustainable Tourism Development in Protected Areas
 - a) Protected Areas
 - b) Sustainable Tourism Development

2. Nature-based Forms of Tourism
 - a) Adventure Tourism
 - b) Agri-Tourism
 - c) Wildlife Tourism
 - d) Ecotourism

3. Impacts of Tourism in Protected Areas
 - a) Economic Impacts
 - b) Environmental Impacts
 - c) Social-Cultural Impacts

4. Summary

2.1 Sustainable Tourism Development in Protected Areas

“To illustrate how difficult communication can be internationally, here is an example from outside of conservation. If you walk into a Starbucks in America and ask for a café grande, they will give you a medium-sized cup of coffee. If you ask for a café grande in Mexico, they may give you a bowl of coffee and a quizzical look. Ask for a café grande in Venice, and they will direct you to a shop on the Piazza Indipendenza. To understand parks and protected areas globally, we have to have a common language” (Mitchell, 2007, p.1).

In order to address the problem of misconception, the International Union for Conservation of Nature (IUCN) created a classification system for protected areas which will be presented in the following. Further, the idea of sustainable tourism develop-

ment will be defined to allow a comprehensive understanding of its relevance for protected areas.

2.1.1 Protected Areas

According to the *Guidelines for Applying Protected Area Management Categories* by the IUCN, Dudley (2008) specifies a protected area (PA) as “a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values” (p. 8). The term encompasses a wide variety of designations, such as nature reserve, wilderness area, national park or protected landscape that can be land, inland water, coastal or marine areas, or a combination thereof. Different aims and restrictions apply to every IUCN protection category. However, all categories pursue the principle of conserving biodiversity and maintaining diversity of landscape or habitat (Dudley, 2008).

In total, the IUCN classified protected areas into six categories with each having different management objectives to “reflect recognition that conservation is not achieved by the same route in every situation” (Dudley, 2008, p. 3). Table 1 gives an overview of the different categories and their characteristics, based on the IUCN guidelines (2008).

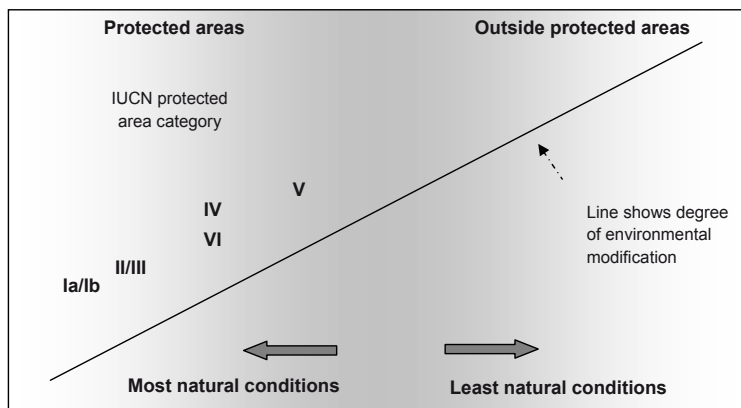
Table 1 IUCN Management Categories of Protected Areas

Category	Description
Ia. Strict nature reserves	- strict control and limitation of human visitation, use and impacts - managed mainly for scientific research
Ib. Wilderness areas	- usually large unmodified or slightly modified areas - focus is on preservation of the areas' natural character without permanent or significant human habitation
II. National parks	- large natural or near natural areas - managed mainly for ecosystem protection, education and recreation
III. Natural monument or feature	- generally quite small areas with a huge visitor value - managed mainly for conservation of specific natural features (e.g. submarine cavern, cave, landform)
IV. Habitat/species management areas	- managed mainly for protection of particular species or habitats through management interventions
V. Protected landscapes/seascapes	- areas of distinct character with significant ecological, biological, cultural and scenic value - formed by high interaction of people and nature - managed mainly for conservation and recreation
VI. Protected areas with sustainable use of natural resources	- generally large areas - managed mainly for the sustainable use of natural ecosystems and conservation of cultural values

Source: Adapted from Dudley, 2008, p. 13-22

As can be noticed from the descriptions above, the extent of human intervention differs in every category. However, this classification system does not automatically imply a gradation in the areas' naturalness in order from I to VI, as illustrated in Figure 2.1(Dudley, 2008).

Figure 2.1 Naturalness and IUCN Protected Area Categories



Source: Adapted from Dudley, 2008, p. 24

It should be noted, however, that all designations of each of the IUCN categories are not fixed. The classification is rather “a framework to guide improved application of the categories” (Dudley, 2008, p. 3) and it is up to individual countries to determine which category and term describes their protected areas best. For example, the term ‘national park’ existed long before the IUCN category system and many national parks worldwide pursue different aims than those defined under the guidelines’ category II. Therefore, some national parks are categorized under other IUCN categories (see Table 2).

Table 2 Various Categories for ‘National Park’

Category	Name	Location
Ia	Dipperu National Park	Australia
II	Yellowstone National Park	USA
III	Gross Barmen Hot Springs National Park	Namibia
IV	Ethniko Parko Schinia Marathona National Park	Greece
V	Fuji-Hakone-Izu National Park	Japan
VI	Koroyanitu National Heritage Park	Fiji

Source: Adapted from World Database on Protected Areas, 2012a-f

Regardless of the category, according to Stolton (2009, p. 13), all protected areas serve a variety of purposes along with biodiversity, conservation and have their main benefits in providing a basis for:

- “Recreation
- Health and well-being, quality of life
- Environmental education
- Sustainable tourism and transport
- Sustainable land-use (agriculture, forestry, fishery, hunting)
- Sustainable development of rural areas
- Regional and national identity
- Regional marketing
- Integrated regional development (including economic impacts)
- Employment (including economic impacts).”

If a protected area is managed in an environmentally sound way to aim for these benefits and the principle of conservation is pursued, it may be used economically for sustainable tourism development.

2.1.2 Sustainable Tourism Development

Increasing tourist numbers worldwide have led to the recognition of an urgent need “to promote sustainable tourism development to minimize its environmental impact and to maximize socio-economic benefits at tourist destinations” (Neto, 2003, p. 218). As mentioned at the beginning of this thesis, uncontrolled tourism development can lead to destruction and exploitation of nature and thus, a destination may lose its original appearance, identity and resources.

The concept of sustainable development was popularized by the World Commission on Environment and Development (WCED) in its 1987 report entitled *Our Common Future*, also known as the *Brundtland Report* (Tosun, 1998), that defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, IV.1). Five years later, the Rio Earth Summit adopted *Agenda 21*, a blue print to secure the concept of sustainability and to address environmental and development issues (Jafari, 2000). It should be noted that tourism was not included in *Agenda 21*. However, it pointed out that tourism could offer sustainable development opportunities.

As tourism as an industry grew more and more and its impacts on the environment emerged and were recognized by the industry’s key stakeholders, sustainability in

tourism gained in importance and resulted in the definition of the priorities of sustainable tourism and finally in the development of *Agenda 21 for the Travel and Tourism Industry* by the World Travel and Tourism Council (WTTC) in 1995 (UN, 2001). The growing awareness of sustainability paved the way for a more sustainable approach to development of tourism and led to the publication of the *Global Code of Ethics for Tourism* by the United Nations World Tourism Organization (UNWTO) in 1999, focusing the postulates of sustainable tourism to assist governments and diverse tourism organizations to achieve sustainable development. The guiding principles are highlighted in Table 3.

Table 3 Guiding Principles for Sustainable Development

<ol style="list-style-type: none"> 1. Travel and tourism should assist people in leading healthy and productive lives in harmony with nature. 2. Travel and tourism should contribute to the conservation, protection, and restoration of the earth's ecosystem. 3. Travel and tourism should be based upon sustainable patterns of production and consumption. 4. Nations should cooperate to promote an open economic system, in which international trade in travel and tourism services can take place on a sustainable basis. 5. Travel and tourism, peace, development, and environmental protection are interdependent. Protectionism for trade in travel and tourism services should be halted or reversed. 6. Environmental protection should constitute an integral part of the tourism development process. 7. Tourism development issues should be handled with the participation of concerned citizens, with planning decisions being adopted at the local level. 8. Nations shall warn one another of natural disasters that could affect tourists or tourist areas. 9. Travel and tourism should use its capacity to create employment for women and indigenous peoples to the fullest extent. 10. Tourism development should recognise and support the identity, culture, and interests of indigenous peoples. 11. International laws protecting the environment should be respected by the travel and tourism industry
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Source: UNWTO, 1996, p. 34

The above-mentioned principles underpinning sustainable development in tourism are, however, not unique to tourism and can be applied to sustainable development in general. It is of paramount importance that tourism stakeholders cooperate with local authorities and environmental agencies to work towards a sustainable development and achieve the principles of sustainability. Due to varying interpretations and perceptions of sustainability, a holistic approach is therefore essential (Slee et al., 1997).

In 2004, the UNWTO defined “sustainable tourism development guidelines and management practices [as being] applicable to all forms of tourism (...), including mass tourism and the various niche tourism segments” (UNEP & UNWTO, 2005, p. 11). The organization also highlighted that the principles of sustainable development in tourism must concern environmental, economic and socio-cultural issues in a suitable balance in order to ensure a long-term effect (UNEP & UNWTO, 2005). These issues will be described more closely in Chapter 2 (p. 32).

Finally, the UNWTO’s concept of sustainable tourism in the context of sustainable development refers to tourist activities “leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems” (UN, 2001, p. 3).

To tighten a holistic approach towards sustainable development and offer a common framework for sustainable practices in the tourism industry, the World Conservation Congress in Barcelona in 2008 announced for the very first time globally relevant sustainable tourism criteria (UNEP, 2008). The Global Sustainable Tourism Council (GSTC) was established two years later to ensure the dissemination and application of the global sustainable tourism criteria. To date, the GSTC developed two sets of criteria: one for hotels and tour operators, and one for destinations. Both sets focus on the four main themes of maximizing tourism’s social and economic benefits to local communities; reducing negative impacts on cultural heritage; reducing harm to local environments; and planning for sustainability (GSTC, 2013).

To summarize, the term sustainability “implies steady life conditions for generations to come” (Zhenhua, 2003, p. 461) and can be considered state-focused. Sustainable development is more process-oriented and encompasses managed changes that aim at bringing improvement for those being involved. In the context of tourism, there are several forms that can contribute to sustainable development of destinations as long as its principles are pursued.

Most of all, fragile environments and protected areas are in need of sustainable development to preserve their natural resources and habitats, especially when there is a growing interest by locals and tourists. The impacts of human interference are inevitable but can be intentionally managed. A closer examination of impacts of tourism on protected areas will be given in section 3 of this chapter. Prior to that, several nature-based forms of tourism will be analyzed as they are considered as being *alternative tourism* which, according to Holden (2007, p. 232) “can be viewed as being synonymous with the concept of sustainable tourism development“. Additionally, the fol-

lowing characteristics of alternative tourism comply with the principles of sustainable development and the four main themes of the global sustainable tourism criteria:

- “Small scale of development with high rates of local ownership
- Minimised negative environmental and social impacts
- Maximised linkages to other sectors of the local economy
- Retention of the majority of the economic expenditure from tourism to local people
- Localised power sharing and involvement of people in the decision-making process
- Pace of development directed and controlled by local people rather than external influences” (Holden, 2007, p. 233).

2.2 Nature-Based Forms of Tourism

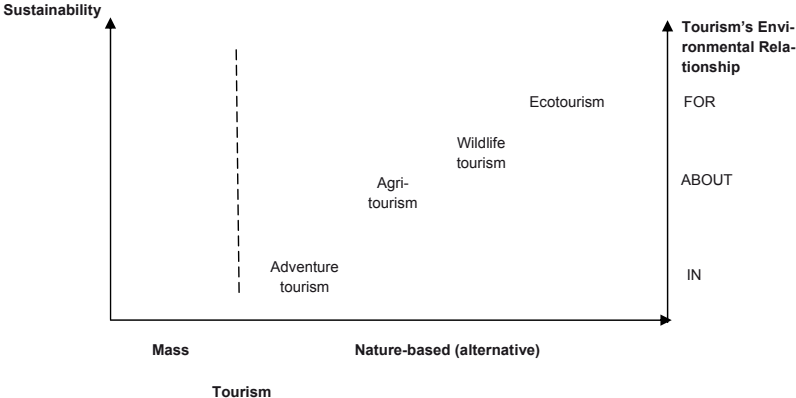
In the late 1980s (Weaver & Oppermann, 2000), nature tourism accounted for only 2% of all tourism whereas today, according to Buckley (2009a), it represents more than 20%. It is obvious that nature tourism nowadays is of high importance in the tourism industry due to its explosive growth over the last decades. Therefore, nature tourism on the one hand has a strong capability to change natural areas but on the other also tourism itself.

The terms nature tourism or nature-based tourism are used interchangeably in the literature (Kline, 2001; Newsome et al., 2002) and denote “all types of tourism that rely on relatively undisturbed natural environments or natural features” (Buckley, 2009a, p. 5). It can include activities based on: consumptive uses (such as recreational hunting and fishing); outdoor recreation and adventure; passive enjoyment of scenery, geology, flora and fauna; and non-consumptive activities for conservation and research (Coghlan & Buckley, 2012). Thus, nature tourism encompasses the following forms of tourism (Hall & Boyd, 2005):

- tourism in natural settings (e.g. adventure tourism)
- tourism about specific elements of the natural environment (e.g. wildlife tourism, agri-tourism)
- tourism developed to protect or conserve natural areas (e.g. ecotourism).

At first glance, this classification already reveals that nature-based tourism is a very diverse sector and has different levels of sustainability. Moreover, the environmental relationship differs, depending on the form of nature tourism as shown in Figure 2.2. Therefore, the four selected categories of nature-based tourism illustrated in Figure 2.2 will be examined more closely.

Figure 2.2 Nature-Based Tourism and Sustainability



Source: Adapted from Newsome et al., 2002, p. 13

2.2.1 Adventure Tourism

Adventure tourism as a form of nature-based tourism with focus on the environment and only little sustainable aspects is a worldwide industry with a global annual turnover of around one trillion US dollar, offering more than hundreds of thousands of individual products worldwide (Buckley, 2009b). According to the Adventure Travel Trade Association (ATTA, 2012), adventure travel is growing at a rate of 17% a year, and could be 50% of all reasons to travel by 2050.

Making use of today's technology and looking for adventure tourism on the search engine Google (see Appendix A), results show images of whitewater rafting, bungee jumping, horse riding, ballooning, hiking and climbing amongst others. Hence, the term adventure can be used for a variety of activities and therefore, a closer examination of its meaning in tourism is required. The term itself is relatively new in aca-

demographic research due to its obvious wide scope, including numerous categories of outdoor activities (Buckley, 2010).

According to the World Tourism Organization (1991), a leisure activity only qualifies as tourism if it includes an overnight stay outside of the participant's place of residence. Depending on the destination, the minimum threshold travel distance can vary between 40 km (e.g. in Australia) and 160 km (e.g. in Canada). However, many commercial adventure activities are offered as single-day tours. But, as most of the participants are vacationers who are already far away from home, they eventually qualify as tourists and thus, such adventure activity tours rank among tourism (Buckley, 2010).

Another important distinction that has to be taken into consideration is between adventure tourism and adventure recreation. In the case of adventure tourism, a client pays mostly a tour operator to provide an adventure experience (very often as an all-inclusive product, where equipment and specialist clothing are provided as well). Departure from a specified gateway and date are set and organized. Whereas, in the case of an adventure recreation, individual participants carry out the same activity on their own. Coupled with this, there is no general definition of the character of an adventure activity given that some are fixed-site and others are mobile activities. A dude ranch, for instance, has a fixed site, whereas a back-country horse ride tour is mobile (Buckley, 2009a). Millington et al. (2001) therefore suggest that adventure tourism could be divided into two types – activity-driven and destination-driven.

From the above mentioned facts, it can be already deduced that adventure tourism's focus is on action. Moreover, from a tourism management's perspective, the division allows to conclude that individual tourists traveling for adventure recreation make use of mass tourism transportation and accommodation to access public areas of land and water, such as forests and national parks. In contrast, commercial adventure tour operators may adapt their offer to the needs of their clients and can negotiate with transport and accommodation providers. Hence, it is difficult to tell in general whether a tourist being interested in adventure holiday is rather an independent or organized traveler.

As mentioned before, adventure tourism includes a broad range of activities and thus, Swarbrooke et al. (2003, p. xiii) argue "the concept of adventure is highly personal, and means different things to different people. Something that is quite everyday or mundane for one person can be rare adventure for another, depending on experience and personality". Buckley (2009b) adds a core characteristic of adventure to the previous statement by stating "what fills one person with fear fills another with boredom, and vice versa" (p. xvii). Below are some words listed that are generally

used in magazines and brochures to purvey adventure products (Swarbrooke et al., 2003).

- | | | |
|-----------|--------------|--------------|
| • Thrill | • Adrenaline | • Excitement |
| • Fear | • Terror | • Risk |
| • Conquer | • Success | • Daring |

These associations show that adventure is very often related with an action or feeling being considered relatively extreme. But again, the definition of the extreme lies in the eye of the beholder. For one person an adventure might be spending some days with cloistered monks in silence whereas for another person adventure means jumping out of an airplane with a parachute.

For this reason, adventure tourism is often divided into soft and hard dimensions. Soft adventure vacations include biking, bird-or-animal-watching, hiking, horseback riding, rafting, scuba diving and snorkeling; and caving, climbing and trekking are ranked among the hard adventure activities (ATTA, 2010). Studies indicate that there has been a shift in classification. At the beginning of the 21st century, rafting and scuba diving were classified as hard adventure activities at that time (Travel Industry Association, 1998 as cited in Meyer et al., 2003). It seems as if nowadays these activities have lost some of its thrill and the adventure travelers are looking for something more risky, unusual and novel. According to Christiansen (1990), soft adventure activities are pursued by those tourists being interested in a perceived risk and adventure with little actual risk. As the example of bird-or-animal watching shows, soft adventure activities blend physical adventures (in this case, visiting the natural area) with enriching activities (learning from the birds' observation). On the contrary, hard adventure activities are known by both the participant and the service provider to have a high level of risk and involve more physically demanding activities as well as training and preparation.

Generally, the following core characteristics or qualities are regarded to be the basis of adventure activities (Ewert, 2001; Swarbrooke et al., 2002):

- involvement with a natural environment
- uncertain outcomes
- danger and risks
- challenge
- anticipated rewards
- novelty
- stimulation and excitement
- escapism and separation

- exploration and discovery
- absorption and focus
- contrasting emotions.

From this examination it can be concluded that adventure tourism should be described as tourism that is focused on active recreation participation in a natural area which can be an exotic, remote, unusual or wilderness destination. The tourists put themselves voluntarily in an unknown situation that challenges them either physically or intellectually and therefore includes some risk. Thereby, a range of emotions is induced that is different from everyday life and eventually, the adventure experience is intrinsically rewarding and provides opportunities for learning, enjoyment and self-development. Hence, the components that create an adventure in tourism are travel (transportation), setting (location) and an activity (Newsome et al., 2002; Swarbrooke et al., 2003; Buckley, 2009b).

The ATTA's survey (2010) revealed that adventure travelers are equally likely to be male or female, even within the category of hard adventure activities, and single or married. Soft adventurers are slightly more female, accounting for 62.3%. The majority of the adventure tourists are between 35 and 47 years old and more highly educated than other types of travelers. In comparison to other travelers of which 47% have a higher education, 63% of the soft adventurers and 70% of the hard adventurers have a post-secondary education. Consequently, they also may have higher levels of household income.

When it comes to interest and motivations, the literature review leads to the conclusion that several studies (Pearce & Caltabiano, 1983; Ewert, 1985; Blamey & Hatch, 1995; Sung et al.; 1996) put early focus on the adventurers' motivations. Findings are that adventure tourists can be divided into inexperienced and experienced adventurers and therefore have different types of motivation (Ewert, 1985). The most basic distinction of motivation is between intrinsic or extrinsic motivation. Intrinsic motivation refers to "the doing of an activity for its inherent satisfactions rather than for some separable consequence" (Ryan & Deci, 2000, p. 3). Hence, a person being intrinsically motivated is moved to do an activity simply for the enjoyment or challenge. In contrast, extrinsically motivated persons do an activity in order to attain some separable outcome. This type of motivation comes from outside of the person (Ryan & Deci, 2000). According to Ewert's study (1985), the inexperienced adventure tourist is more extrinsically motivated and the experienced adventurer has an intrinsic motivation. Fluker and Turner (2000) confirm Ewert's findings and add that inexperienced tourists' motivations are mainly based on the exploration of nature.

But motivation depends on the type of activity the adventure tourist participates in. Meisel and Cottrell (2003) undertook a survey among 300 divers in the Florida Keys. Their results showed that the top motives were to explore the underwater nature and to have fun. Dickson and Dolnicar's (2006) research in New Zealand confirmed that also for hikers enjoying and exploring nature is their major motivation. In contrast, paragliders' participation is mainly based on challenging themselves and having an adventure experience. The experience of nature itself is less motivating for them, according to Chang and Huang's (2012) survey in Taiwan.

2.2.2 Agri-Tourism

Another form of tourism that has nature as one of its core dimensions is agri-tourism (Colton & Bissix, 2005; Phillip et al., 2010) which stands for agricultural tourism and is very often also named agrotourism (Kizos & Iosifides, 2007; Martínez, 2008). Generally, agri-tourism is "business conducted by working farms or ranches for the attraction, enjoyment and education of visitors" (DeBarbieri, 2012). The basic idea is that tourists stay on a farm that provides touristic services (farm-prepared food service and accommodation). During their stay, vacationers have the opportunity to participate actively in the farm life, feed animals and harvest crops, and learn about the farmers' daily-life routine (Jafari, 2000; Greif et al., 2011).

However, agri-tourism is not exclusively limited to spending the holidays on a farm. Agri-tourism also includes activities such as visits to wineries, plantations, guest ranches, agricultural festivals, fairs, craft workshops and farm tours (Adams, 2008; Sznajder et al., 2009; Kime et al., 2011) and is then referred to as agri-tainment (composed of agri and entertainment) or agri-education (agri and education; Maetzold, 2002). Hence, culture and nature are complementary and the experience of the cultural landscape as well as gaining knowledge about the locals' life is the focal point of agri-tourism. This aspect leads to a higher level of sustainability than adventure tourism has. As rural areas are mainly the destinations of this tourism type, also activities such as hiking or horse riding complement the agri-tourism experience. If those activities and experiences are offered, agri-tourism also encompasses other forms of tourism, such as nature tourism or ecotourism (Colton & Bissix, 2005; Kizos & Iosifides, 2007; Sznajder et al., 2009).

Due to its extensive spectrum, agri-tourism attracts different kinds of tourists, according to Wagner et al. (1997). It is estimated that about 55% of all agri-tourists are couples or singles without children and with an average income, being interested in traveling and acquiring new experiences. But also families with children and students show major interest in agri-tourism as the environment and farmers' life is a great

escape from their usual surroundings (especially for city dwellers) and helps to revitalize.

As Greif et al. (2011) report, a decrease in the target group of the 30 to 49-year-old agri-tourists will be expected by 2015. The number will probably go down from 24 million to 22 million persons whereas the target group of the 50-plus-travelers is supposed to increase from 32 million to 36 million. The growth is expected due to the increased life expectancy and thus, higher health-awareness and interest in organic products of the vacationers (Jolly & Reynolds, 2005). However, it should be pointed out that current studies mainly concentrate on the motivations for agri-tourism entrepreneurship and there is a lack in research regarding the agri-tourists' motivations (Nickerson et al., 2001; McGehee & Kim, 2004; Barbieri & Mshenga, 2008; Barbieri, 2010). The most recent study by Norby and Retallick (2012) regarding US Americans motivations towards participating in agri-tourism activities reveals that their motivation is most of all influenced by the opportunity to purchase fresh products, support local farmers, spend time with family or friends and enjoy the rural scenery. A comprehensive literature review revealed a paucity of research that examines agri-tourists' motivations and it seems as if Norby and Retallick's research is in fact the only survey that has been done to the present day. It should be noted, however, that there are hardly studies on agri-tourism as it is "a specific form of tourism within the framework of rural tourism" (Leco et al., 2012, p. 255) which has been widely researched.

2.2.3 Wildlife Tourism

Two associations that cross the mind when one thinks of wildlife tourism might be animals in the wild and therefore nature that attracts tourists to a specific destination. It is assumed that wildlife tourism focuses on the desire of human beings to have an encounter with animals in a natural environment. In fact, early definitions restricted the term wildlife to wild animals (Yarrow, 2009). However, wildlife covers both - flora and fauna (Tapper, 2006).

According to Newsome et al. (2005), "wildlife tourists seek an experience that will enable them to explore, no matter for how short a time, a new ecosystem and its inhabitants" (p. 21). The indication of seeking an experience points out that wildlife tourism is partly an adventure travel. Moreover, it is of course a nature-based form of tourism and additionally involves ecotourism's key principles of being sustainable and educative (Buckley, 2009a). As a matter of fact, wildlife tourism is referred to by several terms in the literature, demonstrating the overlapping of wildlife tourism with other forms. In many studies, for example, wildlife tourism is perceived as a subset of

adventure tourism (Millington et al., 2001; Swarbrooke et. al, 2003), marine tourism (Garrod & Wilson, 2003) or nature-based tourism (Higginbottom, 2004).

Duffus and Dearden (1990) developed an early conceptual framework for wildlife tourism focusing on three dimensions of wildlife-human interaction: hunting and fishing (consumptive use), zoos and aquaria (low-consumptive) and wildlife observation and photography (non-consumptive).

As the focus of this thesis is on sustainable tourism in natural areas, only one of the three dimensions is relevant, which is the non-consumptive use of wildlife. The other two dimensions will be disregarded.

There are two forms of interaction with wildlife that are eventually of interest for sustainable tourism. The first is the interaction between the tourist and free-living but habituated wildlife (Buckley, 2009a). Most commercial wildlife tours and safaris, including those that qualify as ecotourism, focus on this form of interaction. To fulfill the principles of sustainable development, the ideal for a wildlife-watching eco-tour is a neutral interaction which would be the case if the animals ignored the presence of humans and hence, no change to their behavior occurs. However, it takes a significant period of time to achieve this goal, sometimes involving several generations of the species concerned. Consequently, the aim is that the animals “perceive humans neither as a threat, nor as a source of benefits, nor as potential prey or competitors” (Buckley, 2009a, p. 14). As for the humans (especially for the guides), acquiring knowledge of the animals’ behavior and body language is of high importance to keep sufficient distance and behave in an appropriate manner to avoid any disturbance to the wildlife. Tour operators offer, for instance, watching polar bears in Canada’s Churchill or whale and dolphin watching in many sites worldwide (Audley Travel, 2013).

The other sustainable form of human-wildlife interaction involves free-ranging and non-habituated animals. That is to say, tourists encounter the animals by accident, by skilled tracking or by knowledge of the animals’ behavior. Therefore, the tourists need stalking skills and experience to get a good view and approach the animals without scaring and disturbing them. Due to the fact that such skills are required, mostly individual travelers with high interest in wildlife participate in such an activity. Bird watching can be named as an example for this kind of wildlife interaction (Newsome et al., 2005).

As mentioned earlier, wildlife also encompasses the flora and many travelers have developed a fascination for plants and mushrooms. In this context, wildlife tourism is traveling to exotic locations to explore the plants’ regions of provenance and to dis-

cover new species. Very often, such traveling is combined with activities such as photography or painting, for instance in the Amazon Rainforest (Rainforest Expeditions, 2013).

Hence, wildlife tourism motivations can be either based on the desire to study and explore rare wildlife to expand one's knowledge, to commune with nature as a recuperative activity or to be simply entertained by the natural behavior of animals. Thus, wildlife tourists can be divided into generalists (with an overall interest in nature and wildlife) and specialists having a high degree of knowledge of a particular species (Pennisi et al., 2004).

Research on wildlife tourists' motivations is very limited and mostly concentrates on bird-watching. Surveys carried out by Hvenegaard (2002) and Eubanks et al. (2004) in Thailand and the United States found that there are subgroups amongst bird-watchers (committed, active and casual) and their motivations differ depending on their level of involvement. For the casual bird-watchers, motivations unrelated to birds (e.g. seeing trees and wildflowers, visiting parks) are more important than for the two advanced subtypes. However, Sali et al.'s (2007) survey among US birders shows that the major motivations of bird-watchers are of emotional (e.g. going outdoors and enjoying nature) and intellectual (e.g. studying birds' behavior) character (see Appendix B for a complete list). A study by Parsons et al. (2003) carried out among whale-watchers in Scotland, indicates that enjoying and experiencing nature is of key importance for participating.

With a growth rate of 10% each year, the global market size of wildlife tourism has been estimated at 12 million trips annually and to be worth approx. US\$ 45 billion (Mintel, 2008). In terms of the tourist's profile, there are many different types of wildlife tourists and little research has been done on their basic characteristics (Moscardo, 2005). However, wildlife tourists tend to be older than 55 years when it comes to bird-watching activities which are more time-intensive and costly (extra equipment is needed). If a more active sport such as hiking is part of the wildlife experience, the majority of the participants are between 35 and 54 years old. There is also almost an even split among men and women being interested in wildlife tourism (except for bird-watching which attracts more males than females), the majority traveling as a couple but also traveling with family and friends or in an organized tour group is popular among the wildlife vacationers. Like adventure travelers, also wildlife tourists have a high level of education, with 84% of bird-watchers having a college degree and therefore they may have a higher level of income. The average annual income of bird-watchers is about US\$ 50,520 (Boxall & McFarlane, 1993; Moscardo, 2005; Lemelin & Smale, 2006; Patterson, 2007).

2.2.4 Ecotourism

Ecotourism is the form of nature-based tourism that pursues the concept of sustainability the most, as could be seen in Figure 2.2 above. Over the last decade, the term ecotourism has somewhat become a buzzword in the tourism industry since almost every tour operator seems to have ecotours on offer and ecotourism is no longer just a niche market. However, the use of the term ecotourism does not automatically imply a sustainable tourism approach if its principles are not implemented. A group tour through the Himalayas leaving garbage behind is not an ecotour and it is rather a labeling than pursuing the right philosophy that ecotourism stands for. Also, the Galapagos Islands, for instance, is a popular destination for ecotourism but in 2007, the islands were placed on UNESCO's list of World Heritage Sites in Danger (UNESCO, 2007).

Trying to define this term, however, seems to be a challenge for academics as the literature reveals a large number of definitions (Fennell, 2001). The origin of the term can be traced back to the 1960s, when researchers started to become concerned over inappropriate use of natural resources. Hetzer (1965) used the term to explain the relationship between tourists and the environments and cultures in which they interact, and identified the four following pillars that should be followed to have a more responsible form of tourism (1965, cited in Fennell, 2008, p.17):

- (1) "minimum environmental impact
- (2) minimum impact on – and maximum respect for – host cultures
- (3) maximum economic benefits to the host country's grassroots
- (4) maximum recreational satisfaction to participating tourists."

Already in 1976, the Canadian government offered ecotours around the Trans-Canada Highway passing by different ecological zones (Fennell, 1998). But it was not until the 1980s, that the term ecotourism was named for the very first time by Ceballos-Lascuráin who defined it as "traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations found in these areas" (cited in Boo, 1990). Ever since, academics have tried hard to define the term and a research by Fennell (2001) identified 85 separate definitions. Finally, the World Tourism Organization (WTO) suggested that five distinct criteria should be used to define ecotourism (UNWTO, 2002):

- (1) Observation and appreciation of a nature-based product and its traditional culture
- (2) Environmental education

- (3) Generally organized by specialized tour operators for small groups
- (4) Minimal impact management
- (5) Contribution to conservation and community.

Thus, ever since the four pillars mentioned above had been identified by Hetzer in 1965, the tourism industry nowadays attaches great importance to education, sustainable use and conservation of the natural resources by involving the respective community. As Ziffer (1989) argues, the concept of ecotourism serves as an ethic of how to open natural areas for tourists, draw their attention to nature and ensure a minimum impact on its resources at the same time. Further, unlike nature tourism which is more consumer-based, the concept of ecotourism is based on a planned/managed approach by the destination authorities (Ziffer, 1989).

Based on these findings, the author considers Fennell's definition of ecotourism to be applicable (2008, p.24):

"Ecotourism is a sustainable, non-invasive form of nature-based tourism that focuses primarily on learning about nature first-hand, and which is ethically managed to be low-impact, non-consumptive, and locally oriented (control, benefits and scale). It typically occurs in natural areas, and should contribute to the conservation of such areas."

Due to the given range of activities in ecotourism, ecotourists span a wide range of ages and interests. Generally, an ecotourist is a person engaging in "responsible travel to natural areas that conserves the environment and improves the well-being of local people" (The International Ecotourism Society - ITES, 2006, p.1) and embraces the principles of ecotourism. Page and Dowling (2002) recommend classifying ecotourists by level of interest in nature, importance of sustainability concepts, amount of education sought, frequency of travel, amount of physical activity involved, and level of independence (Page & Dowling, 2002). Several surveys (Weaver, 2002; TIES, 2006; Dolnicar et al., 2008; Honey, 2008) suggest that ecotourists tend to be slightly older (between 35 and 54), better educated (82% are college graduates) and therefore more affluent. Thus, they are prepared to pay more for their holidays and are likely to stay longer as they want to explore the destination more thoroughly than those participating in mass tourism (Weaver, 2002; Dolnicar et al., 2008). Ecotourists are also better informed and more experienced (Page & Dowling, 2002). These studies also indicate that females are slightly more represented amongst ecotourists (Weaver, 2002).

According to Self et al. (2010), ecotourism is the fastest growing sector within the tourism industry, growing from 10 to 30 percent a year. During the past years, sever-

al studies therefore have examined the ecotourists' motivations (Ballantine & Eagles, 1994; Diamantis, 1998; Tao et al., 2004; Kwan et al., 2008; Hartley & Harrison, 2009). Ballantine and Eagles (1994) concentrated their study on two motivational criteria – an attraction travel motivation (e.g. the wilderness) and a social travel motivation (e.g. learning about nature). They then formulated a model by adding a time dimension of at least one-third of the vacation spending in nature areas to distinguish ecotourists from other tourists. The study was undertaken among 120 Canadian tourists taking part in safari tours in Kenya and revealed that ecotourists' (84% meeting all three criteria) primary motivations were visiting tropical forests, wilderness or undisturbed nature, and learning about nature. Hence, attraction travel motivations are drawing in ecotourists and in contrast, mainstream tourists prefer social travel motivations (e.g. spending time with loved ones).

Other approaches included surveying British and international ecotourists in Australia for their motivations without explaining the criteria used for considering them ecotourists (Diamantis, 1998; Harrison & Hartley, 2009). Tao et al.'s (2004) research in a national park in Taiwan was based on Ballantine and Eagles' model for ecotourists (wilderness setting, learning about nature and spending at least one third of the vacation in natural settings) and compared their profiles to visitors perceiving themselves as ecotourists. One of the most recent studies by Kwan et al. (2008) analyzed visitors' motivations staying at ecolodges in Belize, also making use of Ballantine and Eagles' model (1994) dividing the motivations into attraction and social motivations.

All four studies (Diamantis, 1998; Tao et al., 2004; Kwan et al., 2008; Hartley & Harrison, 2009) were similar to Ballantine and Eagles' findings with 'tropical forests' and 'wilderness or undisturbed nature' being the major attraction motivations and 'learn and explore nature' the highest social motivation (see Appendix B for a complete list).

However, an exact profile of an ecotourist does not exist and the reason for the lack of exact data might be that ecotourism is widely researched as nature tourism and the above mentioned studies' motivations were fairly general (e.g. increasing knowledge about nature (Diamantis, 1998)). Some academics even question the existence of a distinct ecotourism market (Sharpley, 2006; Beaumont, 2011) and therefore, only false assumptions would be made regarding the size of the market as travel motivations overlap with those of other forms of tourism (Wight, 1996). Even today, studies analyzing travel decisions based on ecotourism principles are missing (Beaumont, 2011). Wight (cited in Honey, 2008) sees the non-existence of a standard definition and the non-homogeneity of the ecotourism market as the major barriers for analyzing, distinguishing and understanding clearly the motivations and interests of ecotourists only.

2.3 Impacts of Tourism on Protected Areas

As Wall (1994) remarks, nature-based tourism attracts attention to natural resources but at the same time it increases the pressures and impacts upon them. “It relies on a balance between conservation of the natural environment and the provision of a quality visitor experience. The former element often proves a challenge, as biophysical, social, and economic impacts are inevitable in natural areas used for tourism” (Moore & Polley, 2007, p. 291).

Impacts of tourism can be either negative or positive. Literature also refers to positive impacts as *benefits* and to negative impacts as *costs* (Lindberg et al., 1996; Eagles et al., 2002; Pickering & Hill, 2007).

In the following, the three forms of impacts, referring to the three dimensions of sustainability – economic, environmental and social-cultural –, will be highlighted in order to point out the importance of nature-based tourism for protected areas but identifying potential risks at the same time.

2.3.1 Economic Impacts

Tourism in protected areas can create and increase employment opportunities and thereby income for the local community in a destination. As protected areas are very popular among international tourists, tourism plays an important role in foreign exchange earnings as Mbaiwa (2003) argues in his study about tourism development due to wildlife attractions in Botswana. Eagles et al. (2002) add that the creation of a job in tourism is relatively inexpensive in comparison to a job in manufacturing and therefore, tourism is often used for economic development by a country’s government. Since most protected areas are situated in peripheral areas, tourism activities are especially a significant catalyst for the economic development of these areas (Murphy & Price, 2005; Lordkipanidze et al., 2008).

A popular example is Costa Rica where tourism generates about 140,000 jobs, represents about 72% of national monetary reserves and accounts for approximately 5.2% of the gross domestic product (ICT, 2012a; UNEP, 2013). More than 25% of its territory is classified under some protection category and it is its national park system that “forms the foundation for its successful ecotourism industry” (Honey cited in Brown, 2001, p. 25). Of the 2,192,059 arrivals in 2011, it is estimated that approximately 60% of these tourists visited a protected area (ICT, 2012b).

It is important that there are products and services for tourists to spend money on in the protected areas and that the amount that leaks out of the local area is as low as possible in order to achieve such positive economic impacts as the case of Costa Rica demonstrated (GCE, 2011). According to Lordkipanidze et al.'s literature review paper (2008), the initial costs of developing tourist activities and facilities in protected areas will be high, but the estimated revenues will exceed costs after a certain amount of time if the PA's management pursues an enhancement strategy with focus on conservation. Consequently, tourism in PAs raises awareness and can increase governmental funding for these areas and local communities (Eagles et al., 2002). As nature-based tourists have a high interest in natural assets, they are willing to spend and even donate money for the access and use of protected area facilities, as several studies proved (Wight, 1996; More et al., 1996; Brown, 2001).

However, negative economic impacts of tourism can be, according to Lordkipanidze et al.'s findings (2008), the potential risk of seasonal employment in protected areas due to high and low season for traveling. Having mostly international tourists arriving, the demand for foreign languages increases and thus, very often local labor is replaced by outside labor from developed countries having the required language skills. Moreover, tourism brings along increased living costs since also locals have interest in visiting protected areas but are obliged to pay the same amount of money for products/ offers as tourists do (Brown, 2001; Eagles et al, 2002; Philip, 2012).

Most of all, the development of tourism in protected areas causes the potential problem of overdependence on tourism. As Eagles et al. (2002, p. 31) argue, local economy and protected areas "(...) may become vulnerable to external factors beyond their control, such as natural disasters, currency fluctuations, competitive capture of markets or political instability".

2.3.2 Environmental Impacts

As stated above, tourism in protected areas can raise awareness and be a key factor for their conservation and preserves natural heritage. At the same time, it also supports the preservation of historic buildings and monuments as many PAs are lived-in protected landscapes and therefore, often contain resources of historic, architectural and archaeological interest. Revenues collected through entry or user fees may be used for this purpose as well as for the maintenance of biodiversity. Eagles et al. (2002) make clear that due to nature-based tourism, natural resources are protected that have no perceived value to residents and it contributes to education and inter-

pretation of natural and cultural heritage of both – visitors and residents – as well as to the development of sustainable practices.

Besides improving local facilities, transportation and communications, tourism has also the capacity and potential to improve an area's appearance in visual and aesthetic terms, according to Belsoy et al. (2012), for instance through trees being planted.

Even though nature-based tourism mostly pursues the fundamental idea of sustainability, it will always produce negative impacts that are inevitable but can be reduced.

In order to be able to offer tourist activities, Belsoy et al. (2012) comment that facilities (such as visitor centers or bird hides) and trails need to be built resulting in degradation of landscape and destruction of habitat and ecosystems. Development of tourism means increasing visitor numbers and with it a higher level of noise which causes distress to wildlife and disruption of the wildlife's natural cycles (such as breeding cycle) and behavior.

Tourism activities and movement can also destroy flora and lead to soil erosion, especially through sporting activities. Pickering et al.'s study in Australia's protected areas (2003) explained that visitors may even collect plants, leave garbage and human waste behind and provoke trampling.

If the protected area is accessible with motor vehicles, air pollution rises which has severe effects on the flora and fauna. The threat of toxic pollutants (such as used oils) is therefore more present and can result in the impoverishment and contamination of grounds (Van der Duim & Caalders, 2002).

2.3.3 Social-Cultural Impacts

Sustainable tourism development should not only be aligned with economy and the environment, but also the host community should benefit from it. Successful tourism development implies a cultural exchange between the locals and visitors and the improvement of quality of life comes to the fore.

Especially in lived-in protected areas, tourism should contribute to strengthen community values and traditions and encourage the development and appreciation of culture.

Nature-based tourism in PAs does not only create jobs and raise income, as described earlier, it also improves communications in terms of upgrading roads and providing better access to the areas' surroundings. The establishment of protected

areas also increases the environmental education level of locals. Since language skills are required, some protected areas provide language training to their staff which can then be applied in the community as well (Syngé, 1999).

But increased tourist numbers may disturb community activities, lead to overcrowding and even loss of authenticity of local traditions there where they are commercialized. Visitor regulations also affect local residents and can sometimes represent an intervention in traditional practices (e.g. prohibition on plant collection for spiritual uses). Consequences can be loss of community character and eventually decline of local friendliness and hospitality (Syngé, 1999; GCE, 2011) when “communities are not given choices, or have no control over their involvement with tourism” (Eagles et al., 2002, p. 32).

2.4 Summary

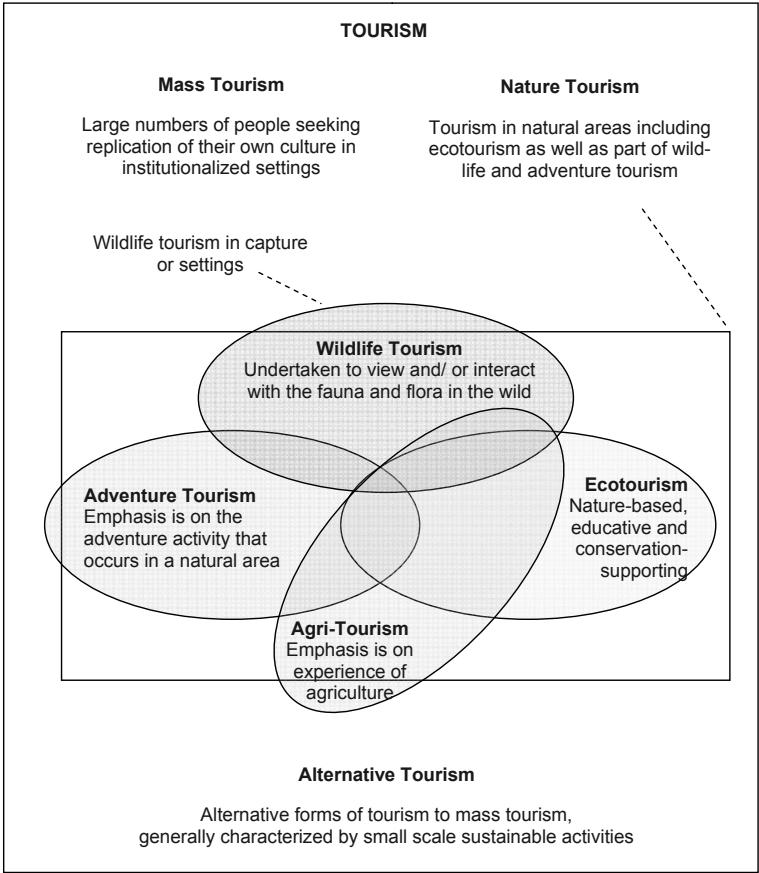
Protected areas were established in order to provide long-term conservation of nature and maintain their unique ecological, scenic, historic or geologic value (Dudley, 2008). Additionally, they provide opportunities for recreation and environmental education (Stolton, 2009).

As interest in natural areas increases, there is a diversification of nature-based forms of tourism, determined by their motivation and interest, respectively. However, as evidenced from the overview of the literature, it is difficult to distinguish the different forms from each other clearly, as their definitions are imprecise and vague, and their core characteristics do overlap very often. All four forms analyzed pursue the idea of sustainable development to some extent, with adventure tourism being the least involved and ecotourism being the most sustainable form of tourism. The overlap, however, leads to a combination of the forms, as depicted in Figure 2.3.

With a rising number of visitors, there is a growing pressure on natural areas and biodiversity, and impacts (positive and negative) are increasing. Therefore, a protected area’s management is faced with a major challenge of ensuring the basic idea of long-term conservation. Hence, as a possible approach, the concept of sustainable tourism development and its principles are aimed at managing protected areas visitation to maximize positive benefits and minimize negative impacts. It allows the economic use of natural resources by protecting and conserving them, and integrating the local community in the process – always in accordance with the respective protection category. Nevertheless, tourism is an industry of fulfilling needs, and therefore also sustainable tourism development has to take the tourists’ needs into account to be successful. An examination of tourists’ motivation and interest in sustainable

products in natural areas may offer an insight into park visitors' profiles and allow a better product development – incorporating the principles of sustainability.

Figure 2.3 The Overlap and Position of Nature-Based Forms within Tourism



Source: Adapted from Newsome et al., 2005, p. 19

Chapter 3

Methods

The methods used in the examination of the motivations and interests in nature-based tourism and sustainable products among natural park visitors on Mallorca are described in four sections of this chapter:

1. The study area
2. Selection of participants
3. Instrumentation
4. Treatment of data

3.1 The Study Area

Mallorca has a huge variety of landscape to offer and a total of thirteen natural areas that are protected under different categories, including four natural parks, two nature reserves, two natural monuments, one protected landscape and one national park (Espais de Natura Balear, 2013a).

For this study, two natural parks were selected by the director of Espais de Natura Balear (now known as IBANAT), the Balearic Islands' responsible management unit of the natural areas (Reche, personal contact March 21st, 2013). Earlier research has shown that both parks have a great potential for tourism development (TDD-11W, 2013). This thesis is based on the research of TDD-11W.

In the following, the two natural areas Parc Natural de s'Albufera de Mallorca and Parc Natural de la Península de Llevant will be presented as the study site of this research.

3.1.1 Parc Natural de s'Albufera de Mallorca

The natural park s'Albufera is located in the northeast of the island near the bay of Alcúdia (see Figure 3.1) and was the very first protected area of all four Balearic Islands. On January 28th in 1988, s'Albufera was officially declared as a natural park by the Balearic Government with the aim to conserve and restore its natural and cultural heritage, providing educational, scientific and public use at the same time (Conselleria de Medi Ambient, 2006).

Figure 3.1 Localization of s'Albufera



Source: Fernando Lluch Dubon, 2013

The park is a designated wetland area under the RAMSAR convention and a special protected area for birds (SPA) declared by the European Commission. “Composed primarily of standing water and reeds it is the remnant of a lagoon-like feature that is cut off from the sea by dune formations” (Buswell, 2011, p. 28). With a surface area of approximately 1,647 hectares of grassland and marsh, it is home to 303 different bird species, 205 species of fungi and about 1,500 species of invertebrate with some of them being endemic to the Balearics, meaning not to be found anywhere else in the world (Espais de Natura Balear, 2013b).

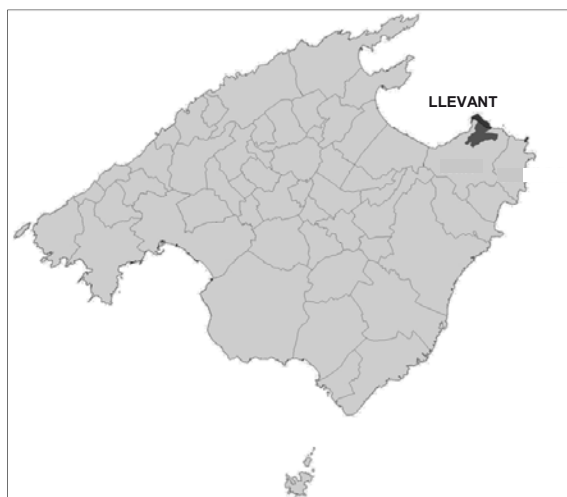
S'Albufera may be accessed on foot or by bicycle and offers four trails of different length, eight bird hides, an information center as well as an interpretation center with an exhibition about the park's history, flora and fauna. Some workshops and guided tours are offered during the year but exclusively for the local community.

The number of visitors accounts for approx. 120,000 a year with almost 50% being German tourists, 19% domestic visitors and 15% arriving from Great Britain. Peak visitation season is between April and October (Perello, 2012).

3.1.2 Parc Natural de la Península de Llevant

Unlike s'Albufera, the natural park Península de Llevant (hereinafter referred to as Llevant only) is the youngest of all four natural parks on Mallorca, designated in 2001, and is situated in the northeast of the island, at the northern end of the Llevant mountain range (see Figure 3.2; PN Llevant, 2013).

Figure 3.2 Localization of Llevant



Source: Fernando Lluch Dubon, 2013

It covers a protected area of 1,671 hectares and “the vast [natural] diversity with coastal cliffs [and beaches], caves and chasms, springs and streams, forests and scrubland, gives this Natural Park an immense landscape value” (PN Llevant, 2013). Agricultural crops such as olives, almonds, figs and carobs are widely spread throughout the park. Old country estate houses, water wheels and olive oil mills can still be found. It therefore is declared as a Site of Community Interest (SCI), a Natural Area of Special Interest (ANEI) as well as an Area of Special Protection for Birds (ZEPA). Like s'Albufera, Llevant is also home to numerous species that are endemic to the Balearic Islands (Espais de Natura Balear, 2013c).

The park offers eleven hiking trails and attracted about 18,277 visitors in 2011 of which approx. 54% were inhabitants of the Balearic Islands. Due to extreme heat during the summer, most visitors come to Llevant in spring-time and fall (PN Llevant, 2013).

As the region was once cleared through slash burning, a reforestation project, entirely financed by the German tour operator TUI Deutschland, is aiming at reducing soil erosion by planting about 50,000 trees covering an area of 48 hectares until 2014 (Inatour, 2013).

3.1.3 Classification of the two Natural Parks

As previously mentioned in Chapter 2, the IUCN classification of natural areas is not obligatory and rather a framework. Table 1 also indicates that there is no category designated as *natural park*.

The Balearic Islands do not follow the classification system proposed by the IUCN and therefore, the natural areas are not officially classified under any of the seven categories (Cortès, personal contact May 6th, 2013).

However, if the two natural parks of s'Albufera and Llevant were to be classified, one might argue that they belong to category II as both parks are large areas and as described above, ecosystem protection, education and recreation are mainly focused in s'Albufera as well as in Llevant. But still, interpretation may vary.

3.2 Selection of Participants

The peak visitation season in both parks is in spring-time, therefore the month of May was chosen to carry out the survey. Due to Pentecost Holiday on May 19th and 20th 2013 in Germany, it was expected that Germans would take advantage of the extended weekend for a getaway to Mallorca. Hence, a sampling plan was designed to achieve a representative sample of park visitors between May 15th and June 1st 2013, which could be closely followed. In s'Albufera, potential participants were approached starting early noon-time as the park opened at 9 a.m. and visitors should already have had gained a first insight into the natural park's offer. The resting area next to the information center turned out to be the ideal location. In contrast, participants in Llevant were approached between the early and late afternoon hours on the parking-lot, once they finished their visit as the park covers an extensive area and can be accessed anytime during the day.

Once approached, nature and importance of the study was explained by the interviewer and tourists were requested to participate in a 7-minute voluntary survey. Participants were assured that all responses were completely anonymous and confiden-

tial and that the results of the survey would be presented to the Balearic Government.

A total of 423 park visitors were approached in 11 days and 402 agreed to complete the questionnaire, which resulted in a 95% response rate (see Table 4).

Table 4 Sampling Days

Week	Sampling Days	Number of Participants per Day	Weekly Total
5/13/13	Wednesday, Thursday, Friday, Saturday (all days in s'Albufera)	25, 45, 66, 48	184
5/20/13	Monday, Wednesday, Thursday, Friday, Saturday (all days in Llevant)	38, 27, 56, 42, 16	179
5/27/13	Monday (Llevant), Tuesday (s'Albufera)	21, 18	39
Total Number of Days = 11			N = 402

3.3 Instrumentation

The survey consisted of a one-and-a-half page, double-sided questionnaire with a total of 88 questions for s'Albufera (see Appendix C) and 90 questions for Llevant (see Appendix D), categorized in eight sections. The first section (question# 1 – 3) addressed the general park visit which included first-time or repeated visit, source of information and mode of transportation. The second section (question# 4) dealt exclusively with motivations for visiting the park: 30 items measured on a five point Likert scale format ranging from 'Not At All Important' (1) to 'Very Important' (5). Satisfaction of the existing park offer was addressed in the third section (question# 5 – 6), with seven items for s'Albufera and five items for Llevant that measured satisfaction of park facilities and the overall park offer on a scale of 1 'dissatisfied' to 5 'completely satisfied'. The fourth section (question# 7 – 8) encompassed 17 items (s'Albufera) or 20 items (Llevant) with respect to evaluation of interest in prospective park offers on a scale of 1 to 5 (1 being the lowest and 5 the highest), and included an open-ended question for desirable offers. The importance of sustainable product characteristics was measured in the fifth section (question# 9) with 15 items and willingness to pay for selected offers was addressed in section 6 (question# 10). Finally, the seventh section (question# 11 – 14) included socio-demographic information and the eighth section contained questions regarding travel behavior (question# 15 – 19).

3.4 Treatment of Data

This section addresses two areas – the operationalization of variables (motivation, interest, satisfaction and sustainable product characteristics) and the analysis procedures for answering the research questions.

3.4.1 Operationalization of Variables

3.4.1.1 Motivation

Based on the literature, the different forms of nature-based tourism are defined by their motivation which has been empirically tested as a set of different categories (such as social, attraction, self-fulfillment, relaxation, adventure and challenge, and culture). A total of 30 items representing six selected different categories of motivation (5 items per category) were derived from the literature to measure the tourists' motivation for a park visit.

The first category addressed the social dimension that included three questions related to having an experience and sharing it with others while two questions referred to fun and discovery. The second category addressed nature as an attraction, including wilderness, flora, fauna, and agriculture, and capturing the natural sites in pictures. Self-fulfillment was addressed in the third section that measured the respondent's need for knowledge, involvement in conservation and closeness to nature. The fourth category dealt with nature as a place to relax, to have a change from everyday life and to gain energy. The fifth category addressed having an adventure and challenging oneself physically, and the sixth category focused the cultural dimension, including cultural attractions, history and two questions related to social-cultural aspects (see Table 5).

Table 5 Items used to Measure Nature-Based Tourism’s Motivations for a Park Visit

Category	Motivational item
I. Social	<ul style="list-style-type: none"> - to have fun¹ - to have something to share with family and friends at home² - to meet new people with similar interests¹ - to spend time together¹ - to see maximum of Mallorca in time available¹
II. Attraction	<ul style="list-style-type: none"> - to explore wilderness and undisturbed nature¹ - to observe the fauna (wildlife)³ - to observe the flora³ - photography of wildlife/ landscape¹ - to get to know local agriculture and its products⁴
III. Self-fulfillment	<ul style="list-style-type: none"> - to help conserving nature³ - to enjoy nature² - to learn about nature and increase my knowledge² - to learn to appreciate nature³ - to be close to nature²
IV. Relaxation	<ul style="list-style-type: none"> - to escape the stress and surroundings of everyday life⁵ - to be alone³ - to relax and gain new energy⁵ - to have peace and quiet³ - to relieve stress and tension⁵
V. Adventure & challenge	<ul style="list-style-type: none"> - be physically active¹ - to experience something exciting³ - to challenge myself physically² - to be in an unusual situation² - for the experience itself⁵
VI. Culture	<ul style="list-style-type: none"> - to support local farmers⁴ - to learn about Mallorcan culture and lifestyles⁶ - to see local exhibits¹ - to visit historical attractions⁶ - to better understand the island's history⁶

Note: Variables coded on a 5-point scale where 1 = not at all important, 2 = less important, 3 = undecided, 4 = important and 5 = very important.

¹ Adapted from Kwan et al. (2008)

² Adapted from Hartley & Harrison (2009)

³ Adapted from Sali et al. (2007)

⁴ Adapted from Norby & Retallick (2012)

⁵ Adapted from Chang & Huang (2012)

⁶ Adapted from Diamantis (1998)

3.4.1.2 Interest

Based on work and research by TDD-11W (2013), a total of 23 different items for proposed offers/ products (17 for s'Albufera, 20 for Llevant) were derived (see Table 6). Respondents were asked to indicate their level of interest on a five point Likert-type scale with responses ranged from 'No Interest' (1) to 'Very Strong Interest' (5).

Table 6 Items Measuring Interest in Prospective Products/ Offers

Offer*
1. Guided tour by foot
2. Guided horseback ride tour ¹
3. Guided tour by bike
4. Guided photography tour
5. Workshop for plant taxonomy and identification
6. Workshop for bird identification
7. Workshop for local products
8. Workshop for local handicraft
9. Farmer's market to buy local products ¹
10. Selling of local products ²
11. Rent a bike
12. Rental of Nordic walking equipment ¹
13. Rental of guidebooks for plant taxonomy and identification ²
14. Rental of guidebooks for bird identification ²
15. Rental of binoculars
16. Rental of audio guides
17. Visitation of country estates ¹
18. App for smartphone with information about park and tours
19. Hiking booklet (collecting stamps) ¹
20. Exhibits about the history of the park
21. Interactive media offering (e.g. touch screens) about the history of the park
22. Merchandise
23. Camping ¹

* Variables coded on a 5-point scale with 1 = No Interest, 2 = Rather Low, 3 = Average, 4 = High, 5 = Very Strong

Note: All items adapted from TDD-W11 (2013).

¹ Item only used in questionnaire for Llevant.

² Item only used in questionnaire for s'Albufera, all other items were used in both questionnaires.

3.4.1.3 Satisfaction

It is important to note that the work of TDD-11W also created the basis of the satisfaction items in the third section (question# 5) of this survey, as their research provided information about the parks' facilities (see Table 7). Level of satisfaction was measured on a five-point Likert scale, from 'Dissatisfied' (1) to 'Completely Satisfied' (5).

Table 7 Items Measuring Satisfaction of Existing Park Offer

Park Facilities
Number of hiking trails**
Signposting**
Number of bird hides*
Exhibition in information center**
Opening hours of park*
Opening hours of information center**

* Item only used for s'Albufera

** Items used for s'Albufera and Llevant

3.4.1.4 Sustainable Product Characteristics

Based on the guiding principles of sustainable development and eco-tourism (as the most sustainable form of nature-based tourism), items that describe sustainable product characteristics were derived from the literature for the purpose of this study.

15 items were adapted from a guide for policy makers to make tourism more sustainable, published by the UNEP and UNWTO, and from the UNWTO's criteria to define eco-tourism, that include environmental education, minimal negative impacts, tours organized by special tour operators, contribution to conservation and empowerment and integration of the local community (see Table 8).

Respondents were asked to indicate their level of importance of the 15 items on a five point Likert-type scale with responses ranged from 'Not At All Important' (1) to 'Very Important' (5) and were also given the possibility to answer in don't know format. The statements were phrased in such a way that they addressed the above-mentioned criteria indirectly (e.g. integration of local community was addressed as 'workshops and guided tours are offered by locals').

Table 8 Items Measuring Importance of Sustainable Product Characteristics

Statement*
1. Unrestricted use of nature during the park visit
2. Focus is on conservation of nature and natural resources ¹
3. Knowledge about nature is imparted ¹
4. My participation has only the smallest possible impact on nature ¹
5. Environmental awareness of the visitors is raised ¹
6. The experience itself is focused
7. The offer is customized to nature and its circumstances
8. Availability of local products and services ¹
9. Offers can be booked through tour operators ¹
10. English/German is the language of communication
11. English/German is the language of exhibitions at the information center
12. Workshops + guided tours are offered by British/German people
13. Workshops + guided tours are offered by locals
14. Revenues are used for the protection and conservation of nature
15. Number of park visitors per day is limited

* Variables coded on a 5-point scale with 1 = Not At all Important, 2 = Less Important, 3 = Undecided, 4 = Important, 5 = Very Important

¹ Adapted from UNWTO (2002), all other items from UNEP & UNWTO (2005).

3.5 Analysis Procedures of Research Questions

Data were entered and analyzed using the IBM SPSS Statistics version 17.0 (formerly known as Statistical Package for the Social Sciences).

For the examination of the six dimensions of motivation (social, attraction, self-fulfillment, relaxation, adventure and challenge, and culture), all 30 items were subjected to a principal component analysis using varimax rotation. Exploratory factor analysis was used to “discover the nature of the constructs influencing a set of responses” (DeCoster, 1998, p.1), that is to say to reduce the number of motivational statements that can be used to measure a tourist group (factor) and determine what sets of motivational items interrelate and can be used to describe the different profiles of park visitors.

Pearson correlation coefficient (Pearson's r) was used to investigate the potential association between the motivational groups and the respondents' level of a) interest in products/ offers, b) importance of sustainable product characteristics, and c) willingness to pay.

Additionally, four demographics variables a) gender, b) age, c) nationality, and d) education (Independent Variables) were analyzed against the different motivational groups (Dependent Variables) using analysis of variance to determine differences among the park visitor groups. Post hoc analysis using Scheffe's test was also employed to determine the specific differences between groups.

Chapter 4

Results

The results of the data analysis are illustrated in three major sections of this chapter:

1. Profile of Participants
2. Description and Analysis of Key Variables
3. Results of Analysis

4.1 Profile of Participants

Of the 402 respondents, 51% were females and 49% males. The participants were equally chosen to represent 50% German and 50% British nationality. About 64% were over the age of 46, while 45% of all respondents had an academic degree. The majority of the sample was employed, with less than 4% being either a student or unemployed and 25% being retired (see Table 9).

A few differences in the socio-demographic profile of the park visitors of s'Albufera and Llevant could be noted. In s'Albufera about 71% were older than 46 years, 40% had an academic degree and about 36% were retirees. 58% of the participants in Llevant, however, were over the age of 46 and 26% were between 36 and 45 years old. More than half of all respondents had an academic degree and only 15% were retired (see Table 9).

Approximately 68% of all interviewees visited the respective park for the very first time, with no major difference between s'Albufera and Llevant (see Table 9). The guidebook turned out to be the number one source of information (41%), followed by finding out about the parks by chance (16%) and being recommended by family, friends and relatives (12%). Additional important sources of information for s'Albufera were recommendation by the accommodation host (13%) and the tourist information (12%). 50% of all visitors to Llevant became aware of the park through guidebooks and 96% reported to have used a rental car to get to the park. In contrast, only 25% used a car to get to s'Albufera. Almost 50% arrived on foot and 16% by bike. Furthermore, two third of all tourists visited both parks with their partner, 17% with their family and 11% with a private tour group.

A total of 81% of the respondents were repeat visitors to Mallorca, 62% of them indicated to have visited the island between two and five times, and 12% had been there more than seven times. 57% booked their trip individually and 43% booked a package tour. Approximately 71% of the visitors to Llevant were individual travelers, whereas 58% of those visiting s'Albufera made use of the offer of package tours. Half of the tourists stayed between seven and ten days for their vacation, 30% stayed up to two weeks, 10% between four and six days, and only 6% stayed longer than 14 days (see Table 10). Those tourists who stayed between four and six days on the island, spent on average three and a half days in natural areas, followed by five days of those staying up to ten days. Tourists with a holiday length of two weeks, enjoyed natural areas on eight days of their vacation and those staying longer than 14 days, explored nature for nine days (see Table 11).

Table 12 illustrates the overall maximum willingness to pay for selected products/offers. Overall, the majority of the respondents indicated they would be willing to pay 5€ for guided tours and workshops, a bike rental would be worth to pay 10€ for, and more than the half participants would pay 3€ for renting binoculars and information material. Most respondents would pay between three and five Euro for Nordic walking equipment in Llevant. 62% of the visitors to Llevant indicated they would not pay for a hiking booklet at all.

Table 9 Socio-Demographic Profile of Respondents

Socio-demographic Characteristics	<u>both parks</u>		<u>s'Albufera</u>		<u>Llevant</u>	
	n	%	n	%	n	%
Gender						
Male	197	49	94	47	100	50
Female	205	51	108	54	100	50
Age						
35 or under ¹	67	16	34	17	33	17
36 – 45	77	19	25	13	52	26
46 – 55	87	22	31	15	56	28
56 – 65	103	26	58	29	45	23
66 or older ²	68	17	54	27	14	7
Country of Origin						
Germany	201	50	101	50	100	50
UK	201	50	101	50	100	50
Highest Level of Education						
Secondary or less ³	71	18	38	19	33	17
A-Levels	66	17	34	17	32	16
Degree	77	19	42	21	35	18
Post-Graduate	104	26	38	19	66	34
Professional ⁴	82	21	48	23	34	18
Profession						
Pupil/ Apprentice/ Student	13	3	5	3	8	4
Worker	9	2	3	2	6	3
Employee	181	45	79	39	102	51
Retiree	101	25	72	36	29	15
Officer	38	10	14	9	24	12
Self-Employed	47	12	20	10	27	14
Housewife/ -man	11	3	7	4	4	2
Unemployed	2	1	2	1	0	0

Note: The percentages may not sum to 100 due to rounding

¹ Recoded (both parks: 14 -25: 3.5%; 26-35: 13.2%; s'Albufera: 14 -25: 2%; 26-35: 14.9%; Llevant: 14 -25: 5%; 26-35: 11.5%)

² Recoded (both parks: 66-75: 15.2%; 76 or older: 1.7%; s'Albufera: 66-75: 25.2%; 76 or older: 1.5%;

Llevant: 66-75: 5%; 76 or older: 2%)

³ Recoded (both parks: 'In School Education': 0.5%; 'Primary': 0.8%; 'Secondary': 16.5%; s'Albufera: 'In School Education': 1%; 'Primary': 0%; 'Secondary': 17.8%;

Llevant: 'In School Education': 1%; 'Primary': 0.5%; 'Secondary': 15%)

⁴ Recoded (both parks: 'Professional': 19%; 'Master Craftsman': 1.5%; s'Albufera: 'Professional': 21.8%; 'Master Craftsman': 2%; Llevant: 'Professional': 16%; 'Master Craftsman': 1%)

Table 10 Travel Behavior Profile of Respondents

Travel Behavior Characteristics	<u>both parks</u>		<u>s'Albufera</u>		<u>Llevant</u>	
	n	%	n	%	n	%
First Visit to Park						
Yes	275	68	131	65	144	72
No	127	32	71	35	56	28
Source of Information about Park						
Internet	21	5	14	7	7	4
Travel Agent/ Tour Operator	10	3	8	4	2	1
Tourist Information	40	10	25	12	15	8
Newspaper/ Magazine	5	1	5	3	0	0
Guidebook	165	41	65	32	100	50
Recommendation by Accommodation Host	30	8	26	13	4	2
Family, Friends, Relatives	48	12	26	13	22	11
By Chance	64	16	29	14	35	18
Other ¹	19	5	4	2	15	8
Mode of Transportation						
Rental Car	241	60	50	25	191	96
Public Transport	18	5	18	9	0	0
Bike	41	10	33	16	8	4
On Foot	100	25	99	49	1	1
Other ²	2	1	2	1	0	0
With whom are you visiting the park?						
Alone	15	4	9	5	6	3
Partner	255	63	125	62	130	65
Family	69	17	35	17	34	17
Organized Tour Group	9	2	3	2	6	3
Private Tour Group	46	11	25	12	21	11
Other ²	8	2	5	3	3	2
Total Number of Visits to Mallorca						
1 time	75	19	46	23	29	15
2 – 3 times	152	38	83	41	69	35
4 – 5 times	97	24	43	21	54	27
6 – 7 times	29	7	11	5	18	9
Over 7 times	49	12	19	9	30	15
Length of Stay						
4 – 6 days	38	10	14	7	24	12
7 – 10 days	218	54	117	58	101	51
11 – 14 days	121	30	61	30	60	30
Over 14 days	25	6	10	5	15	8

Note: The percentages may not sum to 100 due to rounding.

¹ Maps; ² Not Indicated; n = Frequency

Table 10 Travel Behavior Profile of Respondent - continued

Travel Behavior Characteristics	<u>both parks</u>		<u>s'Albufera</u>		<u>Llevant</u>	
	n	%	n	%	n	%
How many days are you spending in natural areas during your vacation?						
1	20	5	16	8	4	2
2	40	10	27	14	13	7
3	28	7	15	8	13	7
4	54	14	26	13	28	14
5	43	11	22	11	21	11
6	40	10	19	10	21	11
7	40	10	22	11	18	9
8	36	9	12	6	24	12
9	10	3	4	2	6	3
10	41	10	14	7	27	14
11	4	1	1	1	3	2
12	12	3	6	3	6	3
13	5	1	2	1	3	2
14	16	4	8	4	8	4
15	4	1	1	1	3	2
20	1	0.3	1	1	0	0
Type of Trip Booked						
Individual Trip	227	57	85	42	142	71
Package Tour	175	43	117	58	58	29

Note: The percentages may not sum to 100 due to rounding.

Table 11 Length of Stay & Days Spent in Natural Areas – All Respondents

Length of stay on Mallorca	Days spent in natural areas (in days)											Mean
	1	2	3	4	5	6	7	8	9	10	more than 10*	
4 – 6 days	7	6	4	9	3	8	0	0	0	0	0	3.5
7 – 10 days	11	24	21	38	29	27	31	17	6	9	0	5.1
11 – 14 days	1	9	3	7	9	5	8	17	4	25	31	7.9
more than 14 days	1	1	0	0	2	0	1	2	0	7	11	9.1

*A minimum of 11 days was used for calculative purposes.

Table 12 Frequency Distributions (Percentage) for Overall Respondents' Maximum Willingness to Pay

Questionnaire Items*	0€	3€	5€	7€	10€	N
Guided tours	3	11	42	24	20	350
Workshops	9	10	30	25	26	324
Rent a bike	4	7	19	32	39	329
Rental of binoculars	9	59	30	2	1	324
Rental of information material (guidebooks, audio guides)	18	53	26	2	0	358
Hiking booklet ¹	62	19	2	2.5	1	200
Rental of Nordic Walking equipment ¹	6.5	29.5	26.5	7	2	200

* Variables coded on a 6-point scale with 0 = I don't know, 1 = 0€, 2 = 3€, 3 = 5€, 4 = 7€, 5 = 10€

¹ Answers only valid for Llevant.

Note: Frequencies for 'I don't know' are not presented above.

Note: The percentages may not sum to 100 due to rounding.

4.2 Description of Variables

4.2.1 Motivation

A 30-item scale was employed to investigate the motivation among park visitors. Frequency distributions for the items are reported in Table 13. About 80% (*important* combined with *very important*) of the respondents indicated to visit the park for spending time together, and 75% indicated visiting the park is part of seeing maximum of Mallorca in time available. Within the social dimension, 58% also reported having fun as an important reason, while 82% (*not at all important* combined with *less important* and *undecided*) reported meeting new people with similar interests was not really a decisive factor.

Overall, participants reported that nature as an attraction was a crucial element, as between 62% - 90% reported photography of wildlife/ landscape, to observe the fauna and flora, and to explore wilderness and undisturbed nature were important and very important to them for visiting the park. 60% were not convinced that they came to get to know local agriculture and its products.

Approximately 94% indicated enjoying and being close to nature as their main motivation for the park visit, and between 71% - 78% wanted to learn and increase their knowledge about nature.

Between 67% - 78% of the respondents reported that the park was a place where they could relax and have peace and quiet, escape from everyday life and relieve

stress and tension. Being alone was nevertheless not important for 61%. About 75% went to the parks to be physically active, while 67% did not decide to go there to experience something exciting.

Only between 42% - 44% indicated learning about Mallorcan culture and lifestyles, and visiting historical attraction were important for their visit. Cultural aspects were of less or no importance to more than a third of the participants, and another third was undecided about them.

As mentioned, the main motivations in both parks are enjoying and being close to nature. However, a difference could be noted between s'Albufera and Llevant. Respondents visiting s'Albufera indicated that observing fauna (83%) and flora (82%) were two other main motivations for their visit (see Table 14). In comparison, being physically active (93%) and exploring wilderness and undisturbed nature (91%) had dominant influence on the tourists' decision for a visit to Llevant (see Table 15). Observing the flora (75%) was more important than observing the fauna (54%) in Llevant. In the same park, being alone was important to 52%, in s'Albufera only 27% thought it was important for their visiting.

Table 13 Frequency Distributions (Percentage) for Respondents' General Motivation for a Park Visit

Questionnaire Items*	Not At All Important	Less Important	Undecided	Important	Very Important	N
Social						
To have fun	7.3	12.8	21.6	30.7	27.6	398
To have something to share with family and friends at home	11.9	19.4	24.6	25.1	18.9	402
To meet new people with similar interests	26.9	30.4	24.2	13.2	5.2	401
To spend time together	5.2	2.7	12.2	37.4	42.4	401
To see maximum of Mallorca in time available	3.8	6.5	15.3	35.8	38.8	400
Attraction						
To explore wilderness and undisturbed nature	0.0	2.0	8.5	36.6	53.0	402
To observe the fauna (wildlife)	1.5	10.0	20.4	29.1	39.1	402
To observe the flora	1.0	6.0	15.0	36.4	41.6	401
Photography of wildlife/ landscape	7.0	10.4	20.6	28.6	33.3	402
To get to know local agriculture and its products	7.5	23.6	29.1	26.1	13.8	399
Self-Fulfillment						
To help conserving nature	3.7	7.0	23.4	28.6	37.3	402
To enjoy nature	1.0	1.5	3.0	25.6	68.9	402
To learn about nature and increase my knowledge	2.5	6.5	19.7	41.4	29.9	401
To learn to appreciate nature	1.5	3.0	17.7	40.4	37.4	401
To be close to nature	0.0	1.0	5.7	34.8	58.5	402
Relaxation						
To escape the stress and surroundings of everyday life	2.5	4.2	15.4	35.1	42.8	402
To be alone	19.2	20.0	21.4	25.7	13.7	401
To relax and gain new energy	0.7	4.2	16.5	41.4	37.2	401
To have peace and quiet	6.0	10.2	16.9	33.8	33.1	402
To relieve stress and tension	7.5	10.0	13.9	35.6	33.1	402
Adventure & Challenge						
Be physically active	4.0	10.7	10.0	37.2	38.2	401
To experience something exciting	13.4	19.9	33.3	16.9	16.4	402
To challenge myself physically	15.0	14.3	27.1	26.3	17.3	399
To be in an unusual situation	28.9	26.7	27.4	11.5	5.5	401
For the experience itself	3.5	7.7	28.7	37.7	22.4	401
Culture						
To support local farmers	17.8	26.1	29.1	17.8	9.0	398
To learn about Mallorcan culture and lifestyles	11.0	20.0	26.8	30.5	11.8	400
To see local exhibits	11.5	30.4	30.7	19.2	8.2	401
To visit historical attractions	6.0	21.6	28.3	31.3	12.8	399
To better understand the island's history	8.8	25.0	29.5	28.5	8.3	400

Note: The percentages may not sum to 100 due to rounding.

* Variables coded on a 5-point scale with 1 = Not At All Important, 2 = Less Important, 3 = Undecided, 4 = Important, 5 = Very Important

Table 14 Frequency Distributions (Percentage) for Respondents' Motivations for a Park Visit to s'Albufera

Questionnaire Items*	Not At All Important	Less Important	Undecided	Important	Very Important	N
Social						
To have fun	9.0	20.1	21.6	27.1	22.1	199
To have something to share with family and friends at home	12.4	20.3	21.8	29.2	16.3	202
To meet new people with similar interests	31.3	30.3	19.9	13.4	5.0	201
To spend time together	6.5	4.0	17.4	32.3	39.8	201
To see maximum of Mallorca in time available	5.5	10.0	18.5	30.5	35.5	200
Attraction						
To explore wilderness and undisturbed nature	0.0	2.5	9.4	28.2	55.0	202
To observe the fauna (wildlife)	0.0	3.0	14.4	38.7	54.0	202
To observe the flora	1.5	5.0	11.9	36.3	45.3	201
Photography of wildlife/ landscape	9.9	11.4	18.3	24.8	35.6	202
To get to know local agriculture and its products	9.0	28.1	32.2	21.1	9.5	199
Self-Fulfillment						
To help conserving nature	2.5	4.0	18.3	30.2	45.0	202
To enjoy nature	1.0	0.5	3.5	30.2	64.9	202
To learn about nature and increase my knowledge	3.0	4.0	17.9	39.8	35.3	201
To learn to appreciate nature	1.0	3.5	20.4	35.3	39.8	201
To be close to nature	0.0	2.0	7.9	32.7	57.4	202
Relaxation						
To escape the stress and surroundings of everyday life	4.5	6.9	15.3	35.6	37.6	202
To be alone	29.4	23.4	20.4	18.4	8.5	201
To relax and gain new energy	1.5	7.0	17.9	47.3	26.4	201
To have peace and quiet	8.4	11.9	20.8	27.7	31.2	202
To relieve stress and tension	12.9	15.3	13.9	30.7	27.2	202
Adventure & Challenge						
Be physically active	8.0	19.9	13.9	29.4	28.9	201
To experience something exciting	18.3	23.8	29.7	13.9	14.4	202
To challenge myself physically	27.1	22.1	26.6	14.6	9.5	199
To be in an unusual situation	36.3	22.9	23.9	12.4	2.5	201
For the experience itself	6.4	9.9	28.2	33.7	21.8	202
Culture						
To support local farmers	19.1	27.1	27.1	15.1	11.6	199
To learn about Mallorcan culture and lifestyles	13.0	24.0	26.5	27.5	9.0	200
To see local exhibits	15.8	32.2	25.7	17.8	8.4	202
To visit historical attractions	7.5	25.1	30.7	24.1	12.6	199
To better understand the island's history	11.0	29.0	26.5	23.0	10.5	200

Note: The percentages may not sum to 100 due to rounding.

* Variables coded on a 5-point scale with 1 = Not At All Important, 2 = Less Important, 3 = Undecided, 4 = Important, 5 = Very Important

Table 15 Frequency Distributions (Percentage) for Respondents' Motivations for a Park Visit to Llevant

Questionnaire Items*	Not At All Important	Less Important	Undecided	Important	Very Important	N
Social						
To have fun	5.5	5.5	21.6	34.2	33.2	199
To have something to share with family and friends at home	11.5	18.5	27.5	21.0	21.5	200
To meet new people with similar interests	22.5	30.5	28.5	13.0	5.5	200
To spend time together	4.0	1.5	7.0	42.5	45.0	200
To see maximum of Mallorca in time available	2.0	3.0	12.0	41.0	42.0	200
Attraction						
To explore wilderness and undisturbed nature	0.0	1.5	7.5	40.0	51.0	200
To observe the fauna (wildlife)	3.0	17.0	26.5	29.5	24.0	200
To observe the flora	0.5	7.0	18.0	36.5	38.0	200
Photography of wildlife/ landscape	4.0	9.5	23.0	32.5	31.0	200
To get to know local agriculture and its products	6.0	19.0	26.0	31.0	18.0	200
Self-Fulfillment						
To help conserving nature	5.0	10.0	28.5	27.0	29.5	200
To enjoy nature	1.0	2.5	2.5	21.0	73.0	200
To learn about nature and increase my knowledge	2.0	9.0	21.5	43.0	24.5	200
To learn to appreciate nature	2.0	2.5	15.0	45.5	35.0	200
To be close to nature	0.0	0.0	3.5	37.0	59.5	200
Relaxation						
To escape the stress and surroundings of everyday life	0.5	1.5	15.5	34.5	48.0	200
To be alone	9.0	16.5	22.5	33.0	19.0	200
To relax and gain new energy	0.0	1.5	15.0	35.5	48.0	200
To have peace and quiet	3.5	8.5	13.0	40.0	35.0	200
To relieve stress and tension	2.0	4.5	14.0	40.5	39.0	200
Adventure & Challenge						
Be physically active	0.0	1.5	6.0	45.0	47.5	200
To experience something exciting	8.5	16.0	37.0	20.0	18.5	200
To challenge myself physically	3.0	6.5	27.5	38.0	25.0	200
To be in an unusual situation	19.5	30.5	31.0	10.5	8.5	200
For the experience itself	0.5	5.5	29.1	41.7	23.1	199
Culture						
To support local farmers	16.6	25.1	31.2	20.6	6.5	199
To learn about Mallorcan culture and lifestyles	9.0	16.0	27.0	33.5	14.5	200
To see local exhibits	7.0	28.6	35.7	20.6	8.0	199
To visit historical attractions	4.5	18.0	26.0	38.5	13.0	200
To better understand the island's history	6.5	21.0	32.5	34.0	6.0	200

Note: The percentages may not sum to 100 due to rounding.

* Variables coded on a 5-point scale with 1 = Not At All Important, 2 = Less Important, 3 = Undecided, 4 = Important, 5 = Very Important

The motivational items were then subjected to a principal component analysis using varimax rotation to examine the interrelation of the motivational items of the six dimensions. Factor analysis was used in order to determine differences in motivation between the two parks.

For s'Albufera, five factors and a single item were identified (see Appendix E). One item (*to have something to share with family and friends at home*) out of the 30 did not load at all and was therefore not included in the further analysis. One factor containing two items (*to have peace and quiet* and *to be alone*) and the single item factor (*to meet new people with similar interests*) were not extracted due to little informative value, even though they had high loadings (.7, .74 and .80). Scree plot and parallel analysis also suggested retaining four out of the six initial factors (see Appendix F). The extracted four factors and loadings of more than 0.4 are reported in Table 16. Each factor was checked for internal consistency using Cronbach's alpha.

The first factor included nine items of which four addressed the attraction dimension and the other five items represented the complete self-fulfillment dimension. The factor was named *Dedicated Nature-Lover* and had an alpha value of .87. The second factor consisted of one attraction item and all five items that were culturally oriented, hence was named *Culture-Explorer* (alpha = .88). The third factor contained four items related to adventure and challenge, two social items and one item that addressed relaxation and was referred to as *Adventurer* (alpha = .86). Finally, the fourth factor was named *Relaxation-and-Variety-Seeker* (alpha = .74) as two of its four items addressed relaxation, one item was related to adventure and challenge, and another social item was included. Collectively the factors explained 51% of the total variance. Based upon reliability analysis, the mean values of the items within each factor were computed into composite index scores (see Table 17).

Table 16 Factor Loading for Respondents' Motivations – s'Albufera

Questionnaire Items *	Factor 1	Factor 2	Factor 3	Factor 4
To observe the fauna (wildlife)	0.810			
To observe the flora	0.759			
To be close to nature	0.733			
To explore wilderness and undisturbed nature	0.728			
To learn about nature and increase my knowledge	0.641			
To enjoy nature	0.624			
Photography of wildlife/ landscape	0.619			
To help conserving nature	0.593			
To learn to appreciate nature	0.560			
To visit historical attractions		0.838		
To get to know local agriculture and its products		0.766		
To better understand the island's history		0.705		
To see local exhibits		0.647		
To learn about Mallorcan culture and lifestyles		0.639		
To support local farmers		0.548		
To relieve stress and tension			0.824	
To challenge myself physically			0.730	
To have fun			0.726	
To be physically active			0.686	
To experience something exciting			0.622	
To be in an unusual situation			0.550	
To spend time together			0.498	
To escape the stress and surroundings of everyday life				0.671
To see maximum of Mallorca in time available				0.616
To relax and gain new energy				0.601
For the experience itself				0.567
Number of Items	9	6	7	4
Eigenvalue	4.68	4.15	4.11	2.40
Percentage of variance explained	15.60	13.83	13.69	8.01
Cumulative variance explained	15.60	29.43	43.12	51.13

* Items coded on a 5-point scale from Not At All Important (1) to Very Important (5)

Table 17 Reliability Analysis for Motivational Dimensions – s'Albufera

Questionnaire Items	Mean	SD ¹	Corrected Item Total Correlation	Alpha If Item Deleted
Dedicated Nature-Lover				
To observe the fauna (wildlife)	4.34	0.8	0.644	0.85
To observe the flora	4.19	0.9	0.670	0.85
To be close to nature	4.46	0.7	0.699	0.85
To explore wilderness and undisturbed nature	4.40	0.8	0.622	0.86
To learn about nature and increase my knowledge	4.02	1.0	0.641	0.85
To enjoy nature	4.58	0.7	0.556	0.86
Photography of wildlife/ landscape	3.65	1.3	0.551	0.87
To help conserving nature	4.11	1.0	0.597	0.86
To learn to appreciate nature	4.10	0.9	0.622	0.85
Overall index (n = 200)	4.21	0.9	NA	0.87
Culture-Explorer				
To visit historical attractions	3.09	1.1	0.708	0.85
To get to know local agriculture and its products	2.93	1.1	0.731	0.85
To better understand the island's history	2.92	1.2	0.721	0.85
To see local exhibits	2.69	1.2	0.673	0.86
To learn about Mallorcan culture and lifestyles	2.95	1.2	0.687	0.86
To support local farmers	2.71	1.3	0.588	0.87
Overall index (n = 196)	2.88	1.18	NA	0.88
Adventurer				
To relieve stress and tension	3.44	1.4	0.713	0.82
To challenge myself physically	2.58	1.3	0.705	0.82
To have fun	3.34	1.3	0.595	0.84
To be physically active	3.53	1.3	0.625	0.84
To experience something exciting	2.86	1.2	0.609	0.84
To be in an unusual situation	2.18	1.2	0.618	0.84
To spend time together	3.96	1.1	0.468	0.84
Overall index (n = 194)	3.13	1.26	NA	0.86
Relaxation-and-Variety-Seeker				
To escape the stress and surroundings of everyday life	3.95	1.1	0.611	0.64
To see maximum of Mallorca in time available	3.80	1.2	0.465	0.73
To relax and gain new energy	3.91	0.9	0.542	0.69
For the experience itself	3.54	1.1	0.540	0.70
Overall index (n = 199)	3.8	1.08	NA	0.74

¹ Standard Deviation

NA = Not Applicable

For Llevant, seven factors and a single item were identified (see Appendix G). Due to little informative value and in spite of high loadings (between 0.52 and 0.84), the following four out of the initial eight factors were not extracted: Factor 4 (*photography of wildlife/ landscape, to enjoy nature and to have peace and quiet*), Factor 6 (*to have fun, to have something to share with family and friends at home, and to experience something exciting*), Factor 7 (*to be in an unusual situation and for the experience itself*) and the single item Factor 8 (*to be alone*). Scree plot and parallel analysis also suggested retaining only four factors for further analysis (see Appendix H). The extracted four factors and loadings of more than 0.4 are reported in Table 18. Each factor was checked for internal consistency using Cronbach's alpha.

The first factor included eight items of which four addressed the cultural dimension, two were related to self-fulfillment, one to attraction and one was a social item. Given the similarity, the factor was also named *Culture-Explorer* (alpha = .87). The second factor for Llevant encompassed three attraction items and two referring to self-fulfillment, hence was named *Nature-Scout* and had an alpha value of .79. The third factor was also named *Relaxation-and-Variety-Seeker* (alpha = .69) due to similarity with s'Albufera, as two of its four items addressed relaxation, one item was related to self-fulfillment and another social item was included. Given that the fourth of the extracted factors (Factor 5) consisted of three adventure and challenge items, and one social item, it was named *Self-Challenger* (alpha = .68). All four factors together explained 40% of the total variance. Based upon reliability analysis, the mean values of the items within each factor were computed into composite index scores (see Table 19).

Table 18 Factor Loading for Respondents' Motivations – Llevant

Questionnaire Items *	Factor 1	Factor 2	Factor 3	Factor 5
To visit historical attractions	0.790			
To get to know local agriculture and its products	0.775			
To better understand the island's history	0.752			
To see local exhibits	0.663			
To learn about Mallorcan culture and lifestyles	0.653			
To learn to appreciate nature	0.636			
To meet new people with similar interest	0.578			
To support local farmers	0.570			
To observe the fauna (wildlife)		0.806		
To explore wilderness and undisturbed nature		0.666		
To observe the flora		0.602		
To help conserving nature		0.588		
To learn about nature and increase my knowledge		0.513		
To relax and gain new energy			0.785	
To escape the stress and surroundings of everyday life			0.763	
To be close to nature			0.477	
To see maximum of Mallorca in time available			0.455	
To be physically active				0.776
To challenge myself physically				0.601
To relieve stress and tension				0.521
To spend time together				0.499
Number of Items	8	5	4	4
Eigenvalue	4.71	2.92	2.44	1.98
Percentage of variance explained	15.70	9.74	8.12	6.61
Cumulative variance explained	15.70	25.44	33.56	40.17

* Items coded on a 5-point scale from Not At All Important (1) to Very Important (5)

Table 19 Reliability Analysis for Motivational Dimensions – Llevant

Questionnaire Items	Mean	SD ¹	Corrected Item Total Correlation	Alpha If Item Deleted
Culture-Explorer				
To visit historical attractions	3.37	1.1	0.750	0.84
To get to know local agriculture and its products	3.36	1.2	0.709	0.84
To better understand the island's history	3.12	1.0	0.636	0.85
To see local exhibits	2.94	1.0	0.615	0.85
To learn about Mallorcan culture and lifestyles	3.28	1.2	0.581	0.86
To learn to appreciate nature	4.09	0.9	0.597	0.85
To meet new people with similar interest	2.48	1.1	0.520	0.86
To support local farmers	2.75	1.2	0.561	0.86
Overall index (n = 199)	3.17	1.09	<i>NA</i>	0.87
Nature-Scout				
To observe the fauna (wildlife)	3.55	1.1	0.688	0.70
To explore wilderness and undisturbed nature	4.41	0.7	0.546	0.76
To observe the flora	4.05	0.9	0.490	0.77
To help conserving nature	3.66	1.1	0.635	0.72
To learn about nature and increase my knowledge	3.79	1.0	0.506	0.77
Overall index (n = 200)	3.89	0.96	<i>NA</i>	0.79
Relaxation-and-Variety-Seeker				
To relax and gain new energy	4.30	0.8	0.548	0.57
To escape the stress and surroundings of everyday life	4.28	0.8	0.541	0.57
To be close to nature	4.56	0.6	0.442	0.65
To see maximum of Mallorca in time available	4.18	0.9	0.388	0.69
Overall index (n = 200)	4.33	0.78	<i>NA</i>	0.69
Self-Challenger				
To be physically active	4.39	0.7	0.548	0.58
To challenge myself physically	3.76	1.0	0.495	0.58
To relieve stress and tension	4.10	0.9	0.486	0.59
To spend time together	4.23	0.9	0.350	0.68
Overall index (n = 200)	4.12	0.88	<i>NA</i>	0.68

¹ Standard Deviation

NA = Not Applicable

4.2.2 Interest

A 17-item scale for s'Albufera and a 20-items scale for Llevant measured on a 5 point-Likert scale ranging from 'no interest', 'rather low', 'average', and 'high' to 'very strong interest', were employed to measure interest in proposed offers/ products, respectively. Based on frequency distributions, and for a clearer and more precise picture, answers were recoded into 'moderate interest' (*rather low* and *average* combined) and 'high interest' (*high* combined with *very strong*). 'No interest' was retained. Frequency distributions for these recoded answers are presented in Table 20 for the 17 items in s'Albufera and in Table 21 for Llevant (20 items).

In s'Albufera, between 25% - 41% indicated high interest in guided tours, where guided tours by foot were the most favored. 37% had no interest at all in guided tours by bike. Notwithstanding, 46% reported high interest in renting a bike. Half of all visitors reported moderate interest in all types of workshops; however, 39% expressed high interest in workshops for bird identification. 43% also had high interest in renting guidebooks for bird identification and 40% for plant taxonomy and identification. Almost half of the participants had no interest in merchandise and moderate interest in interactive media offering, 41% indicated an app for smartphones would not be necessary. 87% reported a moderate or high interest in exhibits about the history of the park (see Table 20).

Visitors to Llevant expressed lower interest in guided tours, only between 10% - 26% reported being highly interested. Workshops indicated the same moderate interest as in s'Albufera. Of high interest in Llevant are: farmer's market (59%), visitation of country estates (56%) and in contrast to s'Albufera, 44% reported being highly interested in an app for smartphones. Interactive media offering turned out to be interesting for 61% of the respondents, and also 87% had a moderate or high interest in exhibits about the history of the park. 47% indicated interest in camping, 79% in renting a bike and 73% in rental of audio guides. 56% were not interested in a 'hiking booklet' (see Table 21).

In both cases, the open question about interest resulted in a response rate of only 3%. In s'Albufera, the availability of a cafeteria was mentioned several times as well as offering an early bird walk (one mention). In Llevant, visitors would have liked a local restaurant nearby, hiking maps of the area, tours at night, and more information about the park's history.

Table 20 Frequency Distributions (Percentage) for Respondents' Interest in Prospective Products/ Offers – s'Albufera

Questionnaire Items	No Interest	Moderate ¹	High ²	N
Guided tour by foot	20.8	38.6	40.6	202
Guided tour by bike	36.6	38.2	25.2	202
Guided photography tour	26.7	44.5	28.7	202
Workshop for plant taxonomy and identification	21.3	54.9	23.7	202
Workshop for bird identification	19.8	41.5	38.6	202
Workshop for local products	20.8	54.5	24.7	202
Workshop for local handicraft	27.2	52.0	20.8	202
Selling of local products	13.4	56.9	29.7	202
Rent a bike	21.3	33.2	45.5	201
Rental of binoculars	12.4	50.7	46.8	202
Rental of guidebooks for plant taxonomy and identification	18.3	42.1	39.6	202
Rental of guidebooks for bird identification	18.8	38.6	42.6	202
Rental of audio guides	20.8	42.1	37.1	202
App for smartphone with information about park and tours	40.6	34.1	25.3	202
Exhibits about the history of the park	13.4	53.4	33.2	202
Interactive media offering about the history of the park	29.7	52.0	17.8	202
Merchandise	48.0	46.0	6.0	202

Note: The percentages may not sum to 100 due to rounding.

¹ Answers for 'rather low' and 'average' are grouped as 'moderate'.

² Answers for 'high' and 'very strong' are grouped as 'high'.

Table 21 Frequency Distributions (Percentage) for Respondents' Overall Interest in Prospective Products/ Offers – Llevant

Questionnaire Items	No Interest	Moderate ¹	High ²	N
Guided tour by foot	24.0	50.0	26.0	200
Guided horseback ride tour	60.5	30.0	9.5	200
Guided tour by bike	34.5	43.0	22.5	200
Guided photography tour	32.5	43.5	24.0	200
Workshop for plant taxonomy and identification	31.0	49.0	20.0	200
Workshop for bird identification	34.5	49.0	16.5	200
Workshop for local products	26.5	50.0	23.5	200
Workshop for local handicraft	32.5	45.0	22.5	200
Farmer's market to buy local products	6.5	34.5	59.0	200
Rent a bike	21.0	36.5	42.5	200
Rental of Nordic Walking equipment	39.5	43.5	17.0	200
Rental of binoculars	33.5	45.0	21.5	200
Rental of audio guides	27.0	37.5	35.5	200
Visitation of country estates	14.5	30.0	55.5	200
App for smartphone with information about park and tours	28.0	28.5	43.5	200
Hiking booklet	55.5	37.5	7.0	200
Exhibits about the history of the park	13.5	56.0	30.5	200
Interactive media offering about the history of the park	29.5	42.0	18.5	200
Merchandise	56.5	40.5	3.0	200
Camping	53.0	28.0	19.0	200

Note: The percentages may not sum to 100 due to rounding.
¹ Answers for 'rather low' and 'average' are grouped as 'moderate'.
² Answers for 'high' and 'very strong' are grouped as 'high'.

4.2.3 Satisfaction

Seven items for s'Albufera and five items for Llevant measured on a 5 Point-Likert scale ranging from 'dissatisfied', 'not too satisfied', 'undecided', and 'satisfied' to 'completely satisfied' were employed to measure respondents' satisfaction with the existing park offer. The answers were recoded into 'not satisfied' (*dissatisfied* combined with *not too satisfied* and *undecided*), 'satisfied' and 'completely satisfied' were both retained. Frequency distributions for the seven items for s'Albufera are presented in Table 22 and in Table 23 for Llevant (five items).

Between 79% - 86% of the tourists visiting s'Albufera were either satisfied or completely satisfied with the park's facilities, including number of bird hides, signposting and number of hiking trails. Almost half of the respondents were not satisfied with the exhibition in the information center. 78% indicated they were satisfied with the opening hours of the park, but a third thought opening hours of the information center should be improved. A total of 85% reported to be satisfied with the overall park offer.

In Llevant, almost all respondents were either satisfied or completely satisfied with the number of hiking trails (95%). However, a third was not satisfied with the signposting, 82% reported dissatisfaction with the exhibition in the information center and also 83% indicated not to be satisfied with the information center's opening hours. In terms of the overall park offer, 84% reported to be satisfied or completely satisfied.

Table 22 Frequency Distributions (Percentage) for Respondents' Satisfaction – s'Albufera

Questionnaire Items	Not Satisfied ¹	Satisfied	Completely Satisfied	N
Number of hiking trails	13.9	45.3	40.8	201
Signposting	15.9	40.6	43.6	202
Number of bird hides	20.8	48.0	31.2	202
Exhibition in information center	41.9	41.4	17.7	198
Opening hours of park	22.4	40.3	37.3	201
Opening hours of information center	29.9	35.8	34.3	201
How satisfied are you with the overall park offer?	14.9	55.9	29.2	202

Note: The percentages may not sum to 100 due to rounding.

¹ Answers for 'dissatisfied', 'not too satisfied' and 'undecided' are grouped as 'not satisfied'.

Table 23 Frequency Distributions (Percentage) for Respondents' Satisfaction – Llevant

Questionnaire Items	Not Satisfied ¹	Satisfied	Completely Satisfied	N
Number of hiking trails	5.0	31.5	63.5	200
Signposting	33.7	45.2	21.1	199
Exhibition in information center	81.7	13.9	4.4	180
Opening hours of information center	82.9	14.9	2.2	181
How satisfied are you with the overall park offer?	15.5	49.5	35.0	202

Note: The percentages may not sum to 100 due to rounding.

¹ Answers for 'dissatisfied', 'not too satisfied' and 'undecided' are grouped as 'not satisfied'.

4.2.4 Sustainable Product Characteristics

A 15-item scale was employed to investigate the importance of sustainable product characteristics. Based on the frequency distributions, answers were recoded into '*not important*' ('*not at all important*' combined with '*less important*' and '*undecided*'). Frequency distributions for the items for s'Albufera are reported in Table 24 and Table 25 illustrates the distributions for Llevant.

In both parks, the focus on conservation of nature and natural resources was important or either very important for almost all visitors (91% in s'Albufera and 94% in Llevant). Equally important was the use of revenues for the protection and conservation of nature (89% in s'Albufera, 96% in Llevant). However, about a fourth in Llevant and a third in s'Albufera reported that they did not favor restricted use of nature during their visit. Between 46% - 56% stated it was not important for them to limit the number of park visitors per day. Half of the tourists indicated that environmental awareness should be raised as very important in s'Albufera, in Llevant 44% agreed on its importance. Not important to all tourists were the focus on the experience itself (57% - 62%) and the availability of local products and services (57% - 59%). Only between 16% - 23% considered the booking of offers through tour operators as important or very important. 54% in Llevant indicated that it was not important for them to have their mother tongue as the language of communication in the park. In s'Albufera, the proportion was somewhat lower with 38%. More than the half of tourists in both parks thought it was important or very important to have their mother tongue included in the exhibitions at the information center. Between 63% - 75% indicated it was important that locals offered workshops or guided tours.

Table 24 Frequency Distributions (Percentage) for Importance of Sustainable Product Characteristics – s'Albufera

Questionnaire Items	Not important ¹	Important	Very Important	N
Unrestricted use of nature during the park visit	63.3	19.8	16.3	202
Focus is on conservation of nature and natural resources	8.4	30.2	60.9	202
Knowledge about nature is imparted	22.7	38.1	39.1	202
My participation has only the smallest possible impact on nature	27.4	25.9	45.8	201
Environmental awareness of the visitors is raised	16.9	31.2	50.5	202
The experience itself is focused	56.9	24.8	15.3	202
The offer is customized to nature and its circumstances	26.4	33.3	37.3	201
Availability of local products and services	59.0	22.5	11.0	200
Offers can be booked through tour operators	65.5	16.5	6.5	200
My mother tongue is the language of communication	38.1	29.2	27.2	202
My mother tongue is the language of exhibitions at the information center				
Workshops + guided tours are offered by people from my home country.	38.6	28.7	29.7	202
Workshops + guided tours are offered by locals	71.2	12.4	7.5	201
Revenues are used for the protection and conservation of nature	32.4	30.8	32.3	201
Number of park visitors per day is limited	10.4	31.2	57.9	202
	45.6	28.7	21.3	202

Note: The percentages may not sum to 100 due to rounding.

¹ Answers for 'not at all important', 'less important' and 'undecided' are grouped as 'not important'.

Table 25 Frequency Distributions (Percentage) for Importance of Sustainable Product Characteristics – Llevant

Questionnaire Items	Not important ¹	Important	Very Important	N
Unrestricted use of nature during the park visit	75.3	15.7	8.6	198
Focus is on conservation of nature and natural resources	6.0	30.5	63.5	200
Knowledge about nature is imparted	31.5	37.0	30.0	200
My participation has only the smallest possible impact on nature	22.6	31.7	45.7	199
Environmental awareness of the visitors is raised	14.5	40.5	44.0	200
The experience itself is focused	62.0	22.5	15.0	200
The offer is customized to nature and its circumstances	14.0	47.0	38.0	200
Availability of local products and services	57.0	31.5	8.5	200
Offers can be booked through tour operators	80.0	15.5	0.0	200
My mother tongue is the language of communication	53.7	35.7	7.0	199
My mother tongue is the language of exhibitions at the information center	40.0	48.5	9.0	200
Workshops + guided tours are offered by people from my home country	87.5	6.5	0.0	200
Workshops + guided tours are offered by locals	25.0	44.5	29.5	200
Revenues are used for the protection and conservation of nature	4.0	43.0	53.0	200
Number of park visitors per day is limited	55.5	24.0	15.5	200

Note: The percentages may not sum to 100 due to rounding.

¹ Answers for 'not at all important', 'less important' and 'undecided' are grouped as 'not important'.

4.3 Results of Analysis

Pearson correlation coefficient (Pearson's r) was used to investigate the potential association between the motivational groups and the respondents' level of 1) interest in products/ offers, 2) importance of sustainable product characteristics, and 3) willingness to pay.

1. Association between Level of Interest in Products/ Offers and Motivational Groups

a) s'Albufera

The correlation between the 17 interest-in-product-items and the four motivational factors resulted in 47 out of 68 significant relationships at the .01 level and five at the .05 level (see Table 26).

The *Dedicated Nature-Lover* (DNL) resulted in 13 out of 17 significant relationships and showed its (and also the overall) strongest relationship with *workshop for bird identification* ($r = .54$), while *rent a bike*, *app for smartphone*, *interactive media offering* and *merchandise* failed to demonstrate any significant relationship with DNL. Overall, the relationships between DNL and *guided tour by foot*, *guided photography tour*, *workshop for plant identification*, and *rental of guidebooks for bird and plant identification* registered strong positive r values ($r = .48$, $r = .45$, $r = .46$, $r = .47$, $r = .42$), which indicated that as overall motivation in experiencing nature consciously increased, interest in these products/ offers also increased.

The *Culture-Explorer* revealed 16 out of 17 significant relationships with the interest items. However, a lack of significant relationship was identified with *rent a bike*. Of the significant relationships, *workshop for local handicraft* displayed the strongest relationship ($r = .51$), followed by *workshop for local products* ($r = .48$), *guided tour by foot* ($r = .43$), and *exhibits about the history of the park* ($r = .42$). These results indicated that as respondent's level of motivation in culture increased, their level of interest in culture-related products/ offers also increased.

The *Adventurer* registered 10 out of 17 significant relationships with the interest items. However, a lack of significant relationship was found with *workshop for plant and bird identification*, *workshop for local products*, *rental of binoculars*, *rental of guidebooks for plant and bird identification* as well as with *rental of audio guides*. Of

the significant relationships, *interactive media offering* displayed the strongest but only moderate positive relationship ($r = .39$), followed by *app for smartphone* ($r = .38$). These results indicated that as motivations such as being physically active or experiencing something exciting increased, interest in an app and interactive media also grew.

The *Relaxation-and-Variety-Seeker* revealed 13 out of 17 significant relationships with the interest items. However, a lack of significant relationship was identified with *workshop for plant and bird identification* and *rental of guidebooks for plant and bird identification*. Only one moderate positive relationship was again displayed with *app for smartphone* ($r = .37$). All other relationships were weak positive (r between $.18$ and $.29$).

Table 26 Correlations between Interest in Products/ Offers and Motivational Groups – s’Albufera

Interest in Product/ Offer	Motivational Groups							
	Dedicated Nature-Lover		Culture-Explorer		Adventurer		Relaxation-and-Variety-Seeker	
	r	N	r	N	r	N	r	N
Guided tour by foot	.48**	200	.43**	196	.18*	194	.27**	199
Guided tour by bike	.15*	200	.21**	196	.30**	194	.22**	199
Guided photography tour	.45**	200	.30**	196	.23**	194	.23**	199
Workshop for plant taxonomy and identification	.46**	200	.36**	196	.06	194	.11	199
Workshop for bird identification	.54**	200	.33**	196	.14	194	.05	199
Workshop for local products	.37**	200	.48**	196	.14	194	.21**	199
Workshop for local handicraft	.37**	200	.51**	196	.19**	194	.25**	199
Selling of local products	.33**	200	.38**	196	.27**	194	.25**	199
Rent a bike	-0.02	200	.09	196	.22**	194	.23**	199
Rental of binoculars	.24**	199	.23**	195	.09	193	.18*	199
Rental of guidebooks for plant taxonomy and identification	.42**	200	.19**	196	.04	194	.03	199
Rental of guidebooks for bird identification	.47**	200	.25**	196	.07	194	.06	199
Rental of audio guides	.23**	200	.28**	196	.09	194	.27**	199
App for smartphone with information about park and tours	-0.02	200	.17*	196	.38**	194	.37**	199
Exhibits about the history of the park	.30**	200	.42**	196	.22**	194	.26**	199
Interactive media offering about the history of the park	.08	200	.29**	196	.39**	194	.29**	199
Merchandise	.11	200	.21**	196	.29**	294	.18*	199

** Correlation significant at the 0.01 level (2-tailed).

* Correlation significant at the 0.05 level (2-tailed).

b) Llevant

The correlation between the 20 interest-in-product-items and the four motivational factors resulted in 19 out of 80 significant relationships at the .01 level and nine at the .05 level (see Table 27).

The *Culture-Explorer* in Llevant revealed nine out of 20 significant relationships with the interest items. However, a lack of significant relationship was discovered with *guided tour by bike*, *guided photography tour*, *workshop for bird identification*, *rent a bike*, and *rental of Nordic walking equipment, binoculars and audio guides*, as well as with *app for smartphone*, *interactive media offering*, *merchandise* and *camping*. Of the significant relationships, *workshop for local handicraft and products* displayed the strongest but only weak positive relationship ($r = .29$), followed by *exhibits about the history of the park* ($r = .28$). These results indicated that as respondent's level of motivation in culture increased, their level of interest in culture-related products/ offers also increased. These results are concordant with the findings for *Culture-Explorer* in s'Albufera, however, the relationships in s'Albufera are much stronger.

The *Nature-Scout* registered only seven out of 20 significant relationships with the interest items. *Workshop for plant identification* showed the strongest but only moderate positive relationship ($r = .31$), followed by *workshop for bird identification* ($r = .30$) while *rent a bike* was negatively correlated to the *Nature-Scout* motivational dimension ($r = -.26$). These results indicated that as motivations such as exploring wilderness increased, level of interest in these workshops also grew. Furthermore, an increase in *Nature-Scout* motivations was associated with a decrease of interest in renting a bike as well as with *guided tour by bike* ($r = -.25$) and *app for smartphone* ($r = -.24$).

The *Relaxation-and-Variety-Seeker* in Llevant revealed only six out of 20 significant relationships with the interest items. *Visitation of country estates* displayed the strongest but only weak positive relationship ($r = .29$), followed by *rent a bike* ($r = .22$), *workshop for local handicraft* ($r = .20$) and *rental of binoculars* ($r = .20$).

Also the *Self-Challenger* demonstrated only six significant relationships with the interest items, with *rental of Nordic walking equipment* ($r = .27$) having the strongest but only weak positive relationship, followed by *app for smartphone* ($r = .21$), while *workshop for bird identification* was negatively correlated to the *Self-Challenger* motivational dimension ($r = -.24$). These results showed that as motivations such as challenging oneself physically increased, level of interest in Nordic walking equipment

and an app also increased. Furthermore, an increase in *Self-Challenger* motivations was associated with a decrease of interest in workshop for bird identification.

Table 27 Correlations between Interest in Products/ Offers and Motivational Groups – Llevant

Interest in Product/ Offer	Motivational Groups							
	Culture-Explorer		Nature-Scout		Relaxation-and-Variety-Seeker		Self-Challenger	
	r	N	r	N	r	N	r	N
Guided tour by foot	.14*	199	.03	200	.04	200	-0.00	200
Guided horseback ride tour	.16*	199	.09	200	.11	200	.10	200
Guided tour by bike	.04	199	-0.25**	200	.09	200	.13	200
Guided photography tour	.04	199	-0.07	200	.13	200	-0.06	200
Workshop for plant taxonomy and identification	.23**	199	.31**	200	.10	200	-0.03	200
Workshop for bird identification	.09	199	.30**	200	-0.09	200	-0.24**	200
Workshop for local products	.29**	199	.13	200	.10	200	.03	200
Workshop for local handicraft	.29**	199	.14*	200	.20**	200	.08	200
Farmer's market to buy local products	.26**	199	.11	200	.22**	200	-0.03	200
Rent a bike	.08	199	-0.26**	200	.10	200	.16*	200
Rental of Nordic Walking equipment	.12	199	-0.12	200	.17*	200	.27**	200
Rental of binoculars	.14	199	.12	200	.20**	200	.14*	200
Rental of audio guides	.06	199	-0.04	200	.13	200	.02	200
Visitation of country estates	.17*	199	.09	200	.29**	200	.07	200
App for smartphone with information about park and tours	-0.05	199	-0.24**	200	.16*	200	.21**	200
Hiking booklet	.21**	199	.11	200	.11	200	.01	200
Exhibits about the history of the park	.28**	199	.16*	200	-0.07	200	-0.03	200
Interactive media offering about the history of the park	.11	199	-0.10	200	.05	200	.19**	200
Merchandise	.11	199	-0.09	200	-0.07	200	.02	200
Camping	-0.01	199	-0.11	200	-0.02	200	.04	200

** Correlation significant at the 0.01 level (2-tailed).

* Correlation significant at the 0.05 level (2-tailed).

2. Association between Level of Importance of Sustainable Product Characteristics and Motivational Groups

a) s'Albufera

The correlation between the 15 sustainable-product-items and the four motivational factors resulted in 41 out of 60 significant relationships at the .01 level and four at the .05 level (see Table 28).

The *Dedicated Nature-Lover* resulted in 13 out of 15 significant relationships and showed its (and also the overall) strongest relationship with *knowledge about nature is imparted* and *environmental awareness of the visitors is raised* ($r = .53$, respectively), while *unrestricted use of nature during the park visit* and *the experience itself is focused* failed to demonstrate any significant relationship with DNL. Overall, the relationships between DNL and *my participation has only the smallest possible impact on nature*, *number of park visitors per day is limited* and *revenues are used for the protection and conservation of nature* registered strong positive r values ($r = .49$, $r = .43$, $r = .42$), which indicated that as overall motivation in experiencing nature consciously increased, importance of gaining knowledge, having only little impact and conservation also increased.

The *Culture-Explorer* also revealed 13 out of 15 significant relationships with the sustainable-product-items. However, a lack of significant relationship was identified with *mother tongue is the language of communication* and also with *unrestricted use of nature during the park visit*. Of the significant relationships, *offers can be booked through tour operators* displayed the strongest relationship ($r = .40$), followed by *availability of local products and services* ($r = .39$), *number of park visitors per day is limited* ($r = .38$), and *knowledge about nature is imparted* ($r = .35$). These results indicated that as respondent's level of motivation in culture increased, their level of importance of being able to book offers through tour operators, finding local products and services, and gaining knowledge and limiting the number of park visitors also increased.

The *Adventurer* indicated only seven out of 15 significant relationships. A lack of significant relationship was identified with *focus is on conservation*, *knowledge about nature is imparted*, *participation has only the smallest possible impact*, *offer is customized to nature* as well as with *mother tongue is language of communication and exhibitions*, *workshops are offered by locals* and *revenues are used for conservation*. However, of the significant relationships, *the experience itself is focused* displayed the strongest relationship ($r = .45$), followed by *number of park visitors is limited* ($r =$

.35) and *offers can be booked through tour operators* ($r = .31$). These results indicated that as motivations such as being physically active or experiencing something exciting increased, the level of importance of focus on the experience, limitation of park visitors and booking offers through tour operators also increased.

The *Relaxation-and-Variety-Seeker* revealed 12 out of 15 significant relationships. However, a lack of significant relationship was identified with *unrestricted use of nature during the park visit, participation has only the smallest possible impact* and *offer is customized to nature. The experience itself is focused* displayed the strongest relationship ($r = .50$), followed by *offers can be booked through tour operators* ($r = .46$), *number of park visitors is limited* ($r = .34$) and *mother tongue is the language of exhibitions* ($r = .32$). These results indicated that the more the motivations for relaxation increased, the level of importance of focus on the experience, limitation of park visitors and mother tongue at exhibitions also increased.

Table 28 Correlations between Importance of Sustainable Product Characteristics and Motivational Groups – s'Albufera

Importance of Sustainable Product Characteristics	Motivational Groups							
	Dedicated Nature-Lover		Culture-Explorer		Adventurer		Relaxation-and-Variety-Seeker	
	r	N	r	N	r	N	r	N
Unrestricted use of nature during the park visit	-0.07	200	-0.04	196	.28**	194	-0.01	199
Focus is on conservation of nature and natural resources	.37**	200	.25**	196	.05	194	.15*	199
Knowledge about nature is imparted	.53**	200	.35**	196	.06	194	.27**	199
My participation has only the smallest possible impact on nature	.49**	199	.21**	195	.06	193	.11	198
Environmental awareness of the visitors is raised	.53**	200	.28**	196	.14*	194	.30**	199
The experience itself is focused	.00	200	.29**	196	.45**	194	.50**	199
The offer is customized to nature and its circumstances	.33**	199	.21**	195	.12	193	.07	199
Availability of local products and services	.25**	198	.39**	196	.16*	194	.27**	198
Offers can be booked through tour operators	.24**	198	.40**	195	.31**	193	.46**	197
My mother tongue is the language of communication	.19**	200	.14	196	-0.03	194	.29**	199
My mother tongue is the language of exhibitions at the information center	.21**	200	.19**	196	-0.01	194	.32**	199
Workshops + guided tours are offered by people from my home country	.22**	199	.23**	195	.29**	193	.22**	199
Workshops + guided tours are offered by locals	.36**	199	.31**	195	.09	193	.30**	198
Revenues are used for the protection and conservation of nature	.42**	200	.19**	196	.14	194	.15*	199
Number of park visitors per day is limited	.43**	200	.38**	196	.35**	194	.34**	199

** Correlation significant at the 0.01 level (2-tailed).

* Correlation significant at the 0.05 level (2-tailed).

b) Llevant

The correlation between the 15 sustainable-product-items and the four motivational factors resulted in 17 out of 60 significant relationships at the .01 level and five at the .05 level (see Table 29).

The *Culture-Explorer* in Llevant revealed only five out of 15 significant relationships with the sustainable-product-items. *Knowledge about nature is imparted* displayed the strongest but only moderate positive relationship ($r = .35$), followed by *environmental awareness of the visitors is raised* ($r = .34$) and *focus is on conservation* ($r = .26$). These results indicated that as respondent's level of motivation in culture increased, their level of importance of gaining knowledge and conservation also increased.

The *Nature-Scout* indicated only four out of 15 significant relationships and *focus is on conservation* displayed the strongest but only moderate positive relationship ($r = .35$), followed by *environmental awareness of the visitors is raised* ($r = .25$) and *knowledge about nature is imparted* ($r = .23$) while *the experience itself is focused* was negatively correlated with the Nature-Scout dimension ($r = -.16$). These results indicated that as motivations such as exploring wilderness increased, level of importance of conserving nature and gaining knowledge also increased. Furthermore, as respondents' nature-scout-related motivations increased, it was less likely important for them that the experience itself was focused.

The *Relaxation-and-Variety-Seeker* in Llevant revealed only five out of 15 significant relationships. *Environmental awareness of the visitors is raised* displayed the strongest but only moderate positive relationship ($r = .34$), followed by *knowledge about nature is imparted* ($r = .28$), and *the experience itself is focused* ($r = .26$). These results indicated that as motivations for relaxation increased, level of importance of gaining knowledge and focusing the experience also increased.

The *Self-Challenger* indicated seven significant relationships, with *environmental awareness of the visitors is raised* ($r = .24$) also having the strongest but only weak positive relationship, followed by *the experience itself is focused* ($r = .19$), and *unrestricted use of nature during the park visit and participation has only the smallest possible impact* ($r = .19$, respectively) while *mother tongue is language of communication* was negatively correlated to the *Self-Challenger* motivational dimension ($r = -.16$). These results indicated that as motivations such as challenging oneself physically increased, level of importance of environmental awareness and unrestricted use of nature increased. Furthermore, an increase in *Self-Challenger* motivations was

associated with a decrease of importance of having the mother tongue as the language of communication in the park.

Table 29 Correlations between Importance of Sustainable Product Characteristics and Motivational Groups – Llievant

Importance of Sustainable Product Characteristics	Motivational Groups							
	Culture-Explorer		Nature-Scout		Relaxation-and-Variety-Seeker		Self-Challenger	
	r	N	r	N	r	N	r	N
Unrestricted use of nature during the park visit	.07	198	-0.03	198	.02	198	.19**	198
Focus is on conservation of nature and natural resources	.26**	199	.35**	200	.13	200	.17*	200
Knowledge about nature is imparted	.35**	199	.23**	200	.28**	200	.09	200
My participation has only the smallest possible impact on nature	-0.00	198	.01	199	.04	199	.19**	199
Environmental awareness of the visitors is raised	.34**	199	.25**	200	.34**	200	.24**	200
The experience itself is focused	.05	199	-0.16*	200	.26**	200	.22**	200
The offer is customized to nature and its circumstances	.04	199	.05	200	.12	200	.06	200
Availability of local products and services	.19**	199	-0.09	200	.19**	200	.06	200
Offers can be booked through four operators	.03	199	-0.04	200	.10	200	.02	200
My mother tongue is the language of communication	-0.07	198	.05	199	-0.01	199	-0.16*	199
My mother tongue is the language of exhibitions at the information center	.01	199	.09	200	.12	200	-0.03	200
Workshops + guided tours are offered by people from my home country	.13	199	.05	200	-0.10	200	-0.11	200
Workshops + guided tours are offered by locals	.11	199	-0.00	200	.12	200	.05	200
Revenues are used for the protection and conservation of nature	.20**	199	.20**	200	.15*	200	.17*	200
Number of park visitors per day is limited	-0.03	199	-0.08	200	.05	200	-0.09	200

** Correlation significant at the 0.01 level (2-tailed).

* Correlation significant at the 0.05 level (2-tailed).

3. Association between Level of Willingness to Pay for Products/ Offers and Motivational Groups

a) s'Albufera

The correlation between the five willingness-to-pay-items and the four motivational factors resulted in nine out of 20 significant relationships at the .01 level and four at the .05 level (see Table 30).

The *Dedicated Nature-Lover* resulted in four out of five significant relationships and showed its (and also the overall) strongest moderate positive relationship with *guided tours* ($r = .35$), followed by *workshops* ($r = .28$) and *rental of information material* ($r = .23$). These results indicated that as nature-related motivations increased, level of willingness to pay for *guided tours*, *workshops* and *information material* also increased.

The *Culture-Explorer* also revealed four out of five significant relationships with the willingness-to-pay-items. Also *guided tours* displayed the strongest relationship ($r = .31$), followed by *rental of information material* ($r = .28$) and *rental of binoculars* ($r = .26$).

Out of the five willingness-to-pay-items, only *rental of information material* displayed a significant but very weak relationship with the *Adventurer* motivational dimension ($r = .15$).

The *Relaxation-and-Variety-Seeker* revealed four out of five significant relationships with the willingness-to-pay-items. Also *guided tours* displayed the strongest relationship ($r = .25$), followed by *rental of binoculars* ($r = .20$) and *rental of information material* ($r = .19$).

Table 30 Correlations between Willingness to Pay for Products/ Offers and Motivational Groups – s'Albufera

Willingness to Pay for Product/ Offer	Motivational Groups							
	Dedicated Nature-Lover		Culture-Explorer		Adventurer		Relaxation-and-Variety-Seeker	
	r	N	r	N	r	N	r	N
Guided tours	.35**	200	.31**	196	-0.00	194	.25**	199
Workshops	.28**	199	.16*	195	-0.09	193	.09	198
Rent a bike	.02	199	.08	196	.05	194	.17*	198
Rental of binoculars	.17*	200	.26**	196	.02	194	.20**	199
Rental of information material (guidebooks, audio guides)	.23**	200	.28**	196	.15*	194	.19**	199

** Correlation significant at the 0.01 level (2-tailed).

* Correlation significant at the 0.05 level (2-tailed).

b) Llevant

The correlation between the seven willingness-to-pay-items and the four motivational factors resulted in only four out of 28 significant relationships at the .01 level and one at the .05 level (see Table 31).

The *Culture-Explorer* in Llevant revealed only one out of seven significant relationships with *rental of Nordic walking equipment* ($r = .19$). This result indicated that as culture-related motivations increased, level of willingness to pay for *Nordic walking equipment* also increased.

The *bike rental* was negatively correlated with the *Nature-Scout* motivational dimension ($r = -.15$) which indicated that as *Nature-Scout* motivations increased, the level of willingness to pay of visitors for renting a bike decreased.

A lack of significant relationships was identified between the seven willingness-to-pay-items and the *Relaxation-and-Variety-Seeker* in Llevant.

The *Self-Challenger* indicated three out of seven significant relationships, where *rent a bike* displayed the only positive but weak relationship ($r = .19$) while *guided tours* ($r = -.21$) and *workshops* ($r = -.20$) were negatively correlated with the *Self-Challenger* dimension. These results indicated that as respondents' level of motivation as *Self-Challenger* increased, the level of willingness to pay for a bike rental also increased but they were less likely willing to pay for guided tours and workshops.

Table 31 Correlations between Willingness to Pay for Products/ Offers and Motivational Groups – Llevant

Willingness to Pay for Product/ Offer	Motivational Groups							
	Culture-Explorer		Nature-Scout		Relaxation-and-Variety-Seeker		Self-Challenger	
	r	N	r	N	r	N	r	N
Guided tours	.03	199	-0.02	200	-0.09	200	-0.21**	200
Workshops	.10	199	.10	200	-0.07	200	-0.20**	200
Hiking booklet	-0.03	199	.09	200	-0.09	200	-0.12	200
Rent a bike	.00	199	-0.15*	200	.05	200	.19**	200
Rental of Nordic Walking equipment	.19**	199	-0.06	200	-0.04	200	.13	200
Rental of binoculars	.01	199	-0.06	200	.05	200	.07	200
Rental of information material (guidebooks, audio guides)	-0.08	199	-0.04	200	-0.10	200	-0.07	200

** Correlation significant at the 0.01 level (2-tailed).

* Correlation significant at the 0.05 level (2-tailed).

4. Demographic Characteristics

Four demographics variables I) gender, II) age, III) nationality, and IV) education were investigated using analysis of variance (ANOVA) (measured at the .05 level of significance). Post hoc analysis using Scheffe's test was employed to determine the differences between groups.

I. Age

a) s'Albufera

Based on the analysis, a lack of a significant relationship between two visitor groups (*Adventurer* and *Relaxation-and-Variety-Seeker*) and age was identified (see Table 32). A significant relationship was identified between the *Dedicated Nature-Lover* and age at the 0.00 level as well as between the *Culture-Explorer* and age ($p < .05$). Respondents who were 66 years of age or older were most likely to be *Dedicated Nature-Lovers*, followed by respondents who were aged 55–65 and those aged 34–45. Furthermore, post hoc analysis identified significant differences between respondents who were under 35 and respondents who were 36–45, 55–65 and older than 66. Those under the age of 35 were the least likely to be *Dedicated Nature-Lovers*.

Respondents who were aged 66 or older were also most likely to be *Culture-Explorers*, followed by those aged 46-55 and 36-45. Respondents under 35 years of age were least likely to be *Culture-Explorers*. However, post hoc analysis failed to confirm the significant differences within this group.

b) Llevant

Based on the analysis, a lack of a significant relationship between *Culture-Explorer* and age was identified (see Table 33). A significant relationship was identified between the *Nature-Scout* and age ($p < .05$), between *Relaxation-and-Variety-Seeker* and age ($p < .01$) as well as between *Self-Challenger* and age at the .00 level.

Furthermore, post hoc analysis identified significant differences between respondents who were under 35 and respondents who were 55-65. Respondents who were aged 55-65 were more likely to be *Nature-Scouts* than respondents under 35.

Additionally, by using post hoc analysis, significant differences between respondents who were 66 or older and respondents who were 36-45 and 46-55 could be identified. Those respondents aged 66 or older were least likely to be *Relaxation-and-Variety-Seekers*.

Finally, based on the analysis, respondents aged 36-45 were most likely to be *Self-Challengers*, followed by respondents who were aged 46-55 and those under 35. Furthermore, post hoc analysis identified significant differences between respondents who were 66 or older and all other age groups, although no significant differences were found between the other groups. Respondents aged 66 or older were least likely to be *Self-Challengers*.

Table 32 One-Way Analysis of Variance Results for Effects of Age on Motivations for Visit to s'Albufera

Motivational Groups	Age												F	Sig.			
	35 or under			36-45			46-55			55-65					66 or older		
	Mean (n)	SD ¹		Mean (n)	SD ¹		Mean (n)	SD ¹		Mean (n)	SD ¹				Mean (n)	SD ¹	
Dedicated Nature-Lover	3.67 (34) ^{ab}	0.64	4.23 (24) ^{ab*}	0.55	4.10 (30)	0.76	4.36 (56) ^{ab*}	0.46	4.42 (54) ^{ab*}	0.62	9.92	0.000					
Culture-Explorer	2.47 (34)	0.80	2.93 (23)	0.90	3.05 (31)	0.73	2.85 (55)	0.96	3.06 (53)	1.03	2.53	0.042					
Adventurer	3.16 (33)	0.65	3.47 (24)	0.83	3.27 (30)	0.75	3.16 (54)	0.99	2.84 (53)	1.06	2.35	0.056					
Relaxation-and-Variety-Seeker	3.79 (34)	0.64	4.05 (24)	0.82	3.86 (31)	0.66	3.69 (56)	0.89	3.78 (54)	0.92	0.87	0.486					

¹ Standard Deviation

Note: Similar superscripts indicate significant differences utilizing Scheffe's post hoc analysis. For example, respondents who were under the age of 35, were significantly the least likely to be *Dedicated Nature-Lovers*.

* Significant at the .05 level

Table 33 One-Way Analysis of Variance Results for Effects of Age on Motivations for Visit to Llevant

Motivational Groups	Age												F	Sig.			
	35 or under			36-45			46-55			55-65					66 or older		
	Mean (n)	SD ¹		Mean (n)	SD ¹		Mean (n)	SD ¹		Mean (n)	SD ¹				Mean (n)	SD ¹	
Culture-Explorer	2.89 (33)	0.72	3.23 (52)	0.74	3.24 (56)	0.70	3.33 (45)	0.92	2.86 (13)	0.70	2.28	0.062					
Nature-Scout	3.55 (33) ^{ab}	0.79	3.85 (52)	0.79	3.91 (56)	0.58	4.11 (45) ^{ab*}	0.72	4.04 (14)	0.68	3.16	0.015					
Relaxation-and-Variety-Seeker	4.23 (33)	0.62	4.42 (52) ^{ab*}	0.50	4.47 (56) ^{ab}	0.46	4.24 (45)	0.58	3.91 (14) ^{ab*}	0.64	4.03	0.004					
Self-Challenger	4.10 (33) ^{ab}	0.56	4.36 (52) ^{ab*}	0.55	4.15 (56) ^{ab*}	0.52	4.08 (45) ^{ab*}	0.64	3.27 (14) ^{ab}	0.85	9.46	0.000					

¹ Standard Deviation

Note: Similar superscripts indicate significant differences utilizing Scheffe's post hoc analysis. For example, respondents who were 55-65, were significantly more likely to be *Nature-Scouts* than those under the age of 35.

* Significant at the .05 level

II. Gender

a) s'Albufera

Based on the analysis, a lack of a significant relationship between all visitor groups and gender was identified (see Table 34).

Table 34 One-Way Analysis of Variance Results of Effects of Gender on Motivations for Visit to s'Albufera

Motivational Groups	Gender				F	Significance
	Male		Female			
	Mean (n)	SD ¹	Mean (n)	SD ¹		
Dedicated Nature-Lover	4.23 (94)	0.66	4.18 (106)	0.64	0.261	0.610
Culture-Explorer	2.79 (92)	0.95	2.97 (104)	0.91	1.773	0.185
Adventurer	3.15 (92)	0.94	3.11 (102)	0.92	0.095	0.758
Relaxation-and-Variety-Seeker	3.76 (93)	0.82	3.84 (106)	0.82	0.519	0.472

¹ Standard Deviation

b) Llevant

Of the four visitor groups, only one significant relationship was identified between the *Nature-Scout* and gender ($p < .01$) in which females were more likely to be represented than males (see Table 35).

Table 35 One-Way Analysis of Variance Results of Effects of Gender on Motivations for Visit to Llevant

Motivational Groups	Gender				F	Significance
	Male		Female			
	Mean (n)	SD ¹	Mean (n)	SD ¹		
Culture-Explorer	3.09 (103)	0.79	3.26 (96)	0.76	2.44	0.120
Nature-Scout	3.76 (103)	0.74	4.03 (97)	0.69	6.95	0.009
Relaxation-and-Variety-Seeker	4.26 (103)	0.58	4.40 (97)	0.52	3.45	0.065
Self-Challenger	4.07 (103)	0.68	4.17 (97)	0.59	1.28	0.260

¹ Standard Deviation

III. Nationality

a) s'Albufera

The analysis revealed only one significant relationship, namely between *Adventurer* and nationality at the .05 level in which Germans were more likely to be represented than British people (see Table 36).

Table 36 One-Way Analysis of Variance Results of Effects of Nationality on Motivations for Visit to s'Albufera

Motivational Groups	Nationality				F	Significance
	German		British			
	Mean (n)	SD ¹	Mean (n)	SD ¹		
Dedicated Nature-Lover	4.16 (99)	0.67	4.25 (101)	0.63	0.81	0.368
Culture-Explorer	2.96 (97)	0.91	2.81 (99)	0.94	1.21	0.273
Adventurer	3.26 (95)	0.77	3.00 (99)	1.04	3.88	0.050
Relaxation-and-Variety-Seeker	3.71 (100)	0.77	3.89 (99)	0.86	2.46	0.118

¹ Standard Deviation

b) Llevant

Based on the analysis, a lack of a significant relationship between all visitor groups and nationality was identified (see Table 37).

Table 37 One-Way Analysis of Variance Results of Effects of Nationality on Motivations for Visit to Llevant

Motivational Groups	Nationality				F	Significance
	German		British			
	Mean (n)	SD ¹	Mean (n)	SD ¹		
Culture-Explorer	3.18 (99)	0.79	3.17 (100)	0.77	0.01	0.906
Nature-Scout	3.87 (100)	0.72	3.90 (100)	0.74	0.09	0.772
Relaxation-and-Variety-Seeker	4.28 (100)	0.58	4.38 (100)	0.52	1.79	0.182
Self-Challenger	4.09 (100)	0.58	4.14 (100)	0.69	0.31	0.581

¹ Standard Deviation

IV. Education

a) s'Albufera

Based on the analysis, a lack of a significant relationship between three visitor groups and education was identified (see Table 38). Only *Culture-Explorer* showed a significant relationship with education ($p < .05$). Respondents with a secondary education or less were most likely to be *Culture-Explorers*, followed by those with a professional education. However, post hoc analysis failed to confirm the significant differences.

b) Llevant

Based on the analysis, a lack of a significant relationship between all visitor groups and education was identified (see Table 39).

Table 38 One-Way Analysis of Variance Results for Effects of Education on Motivations for Visit to s'Albufera

Motivational Groups	Education												F	Sig.
	Secondary or less		A-Levels		Degree		Post-Graduate		Professional		Mean (n)	SD ¹		
	Mean (n)	SD ¹	Mean (n)	SD ¹	Mean (n)	SD ¹	Mean (n)	SD ¹	Mean (n)	SD ¹				
Dedicated Nature-Lover	4.24 (37)	0.73	4.24 (33)	0.61	4.21 (42)	0.62	4.09 (38)	0.70	4.22 (48)	0.60	0.33	0.857		
Culture-Explorer	3.12 (37)	1.06	3.01 (32)	0.76	2.57 (41)	0.96	2.71 (38)	0.96	3.02 (47)	0.79	2.57	0.039		
Adventurer	2.99 (37)	1.00	3.48 (33)	0.81	2.87 (40)	1.01	3.10 (36)	0.81	3.22 (47)	0.90	2.34	0.057		
Relaxation-and-Variety-Seeker	3.78 (38)	0.77	4.11 (33)	0.67	3.76 (41)	0.90	3.62 (38)	0.84	3.80 (48)	0.84	1.67	0.158		

¹ Standard Deviation

Table 39 One-Way Analysis of Variance Results for Effects of Education on Motivations for Visit to Llevant

Motivational Groups	Education												F	Sig.
	Secondary or less		A-Levels		Degree		Post-Graduate		Professional		Mean (n)	SD ¹		
	Mean (n)	SD ¹	Mean (n)	SD ¹	Mean (n)	SD ¹	Mean (n)	SD ¹	Mean (n)	SD ¹				
Culture-Explorer	3.46 (32)	0.88	3.05 (32)	0.76	3.15 (35)	0.66	3.06 (66)	0.84	3.26 (34)	0.62	1.77	0.136		
Nature-Scout	4.04 (33)	0.74	3.75 (32)	0.77	3.92 (35)	0.79	3.84 (66)	0.75	3.94 (34)	0.55	0.74	0.563		
Relaxation-and-Variety-Seeker	4.39 (33)	0.52	4.23 (32)	0.59	4.33 (35)	0.59	4.29 (66)	0.60	4.46 (34)	0.42	0.893	0.469		
Self-Challenger	4.08 (33)	0.64	4.05 (32)	0.70	4.21 (35)	0.63	4.02 (66)	0.55	4.32 (34)	0.72	1.57	0.185		

¹ Standard Deviation

Chapter 5

Discussion

The objective of this study was to investigate motivations of nature-based tourists visiting natural parks on Mallorca. A secondary purpose was to analyze their satisfaction with the existing park offer, and interest in and importance of sustainable products and willingness to pay for these products in order to determine different visitor park profiles. The results and conclusions of the study are presented in five sections of this chapter:

1. Summary of Procedures
2. Summary of Findings
3. Conclusions
4. Practical Implications
5. Limitations
6. Recommendations for Future Research

5.1 Summary of Procedures

5.1.1 Selection of Participants

The data for this study were collected from tourists in the two natural parks s'Albufera and Llevant in the North of Mallorca, in support of El Govern de les Illes Balears. Potential participants were approached in the parks. Once approached, the interviewer explained the nature and importance of the study, and tourists were requested to participate in a 7-minute voluntary survey. A total of 423 park visitors were approached in 11 days between May 15th and June 1st 2013. 402 visitors agreed to complete the questionnaire, which resulted in a 95% response rate.

Respondents were equally likely to be male and females, as well as from Germany and the UK. The majority was over the age of 46 and well educated. Furthermore, an overwhelming majority of the respondents (81%) were repeat visitors to Mallorca, however, 68% of all participants were first time visitors to the natural parks.

5.1.2 Instrumentation

The survey consisted of a two-sided questionnaire with a total of 88 questions for s'Albufera and 90 questions for Llevant, that addressed the general park visit, motivation, satisfaction, and interest, importance of sustainable products, willingness to pay, demographic information and travel behavior. For the purpose of this study, a total of 30 items were employed to measure motivation that represented six dimensions derived from the literature (Diamantis, 1998; Sali et al., 2007; Kwan et al., 2008; Hartley & Harrison, 2009; Norby & Retallick, 2012; Chang & Huang, 2012). Based on the work of TDD-11W, a total of 23 items were used to measure interest, and a total of six items were used to measure satisfaction. Sustainable product characteristics were operationalized with 15 items derived from the literature (UNWTO, 2002), and from a guide for policy makers to make tourism more sustainable, published by the UNEP and UNWTO.

5.1.3 Operationalization of Variables

5.1.3.1 Motivation

A 30-item scale was employed to investigate motivation among natural park visitors. The motivational items were subjected to a principal component analysis (varimax rotation) to examine different motivational dimensions. For s'Albufera, five factors and a single item were identified. However, only four factors were extracted. Each factor was checked for internal consistency based on Cronbach's alpha.

The first factor included nine items, four of them addressing the attraction dimension and the other five items represented the complete self-fulfillment dimension. The factor was named *Dedicated Nature-Lover* (alpha = .87). The second factor consisted of one attraction item and all five items that were culturally oriented, hence was named *Culture-Explorer* (alpha = .88). The third factor contained four items related to adventure and challenge, two social items and one item that addressed relaxation and was referred to as *Adventurer* (alpha = .86). Finally, the fourth factor was named *Relaxation-and-Variety-Seeker* (alpha = .74) as two of its four items addressed relaxation, one item was related to adventure and challenge, and another social item was included. Collectively the factors explained 51% of the total variance.

As for Llevant, four out of the initial eight factors were extracted. The first factor included eight items of which four addressed the cultural dimension, two were related to self-fulfillment, one to attraction and one was a social item. Given the similarity, the factor was also named *Culture-Explorer* (alpha = .87). The second factor for Llevant

encompassed three attraction items and two referring to self-fulfillment, hence was named *Nature-Scout* and had an alpha value of .79. The third factor was also named *Relaxation-and-Variety-Seeker* (alpha = .69) due to similarity with s'Albufera, as two of its four items addressed relaxation, one item was related to self-fulfillment and another social item was included. Given that the fourth of the extracted factors consisted of three adventure and challenge items, and one social item, it was named *Self-Challenger* (alpha = .68). All four factors together explained 40% of the total variance.

Based upon reliability analysis, the mean values of the items within each factor of s'Albufera and Llevant were computed into a composite index score for each motivational dimension.

5.1.3.2 Interest

A 17-item scale for s'Albufera and a 20-items scale for Llevant were employed to measure interest in proposed offers/ products on a 5-Point-Likert Scale, respectively. Overall, participants in both parks indicated moderate interest in workshops. In s'Albufera, respondents indicated high interest in guided tours, whereas in Llevant participants had much lower interest in these tours but were highly interested in an app for smartphones.

5.1.3.3 Satisfaction

A 7-item scale for s'Albufera and a 5-item scale for Llevant were employed to measure respondents' satisfaction with the existing park offer 5-Point-Likert Scale. Overall, the majority in both parks was satisfied with the general park offer, respectively.

5.1.3.4 Sustainable Product Characteristics

A 15-item scale measured on a 5-Point-Likert scale was employed to investigate the importance of sustainable product characteristics in both parks. Overall, almost all respondents indicated the focus on conservation of nature and natural resources were important or either very important to them, and reported revenues should be used for the protection of nature. Moreover, the majority thought that locals should offer workshops or guided tours.

5.2 Summary of Findings

The results of the research are summarized and the relationships between the independent and dependent variables are discussed in this section.

a) s'Albufera

There was a strong positive correlation that indicated a significant linear relationship between the *Dedicated Nature-Lover* (DNL) and the following six interest-in-products/offers-items: *workshop for bird identification*, *guided tour by foot*, *rental of guidebooks for bird identification*, *workshop for plant identification*, *guided photography tour* and *rental of guidebooks for plant identification*. The findings noted that as the park visitors' motivations such as observing the flora and fauna, exploring wilderness, taking photos of wildlife/ landscape, and learning about nature increased, interest in products/ offers addressing their motivations also increased. Moreover, a moderate positive relationship was found with *workshop for local products and handicrafts*, *selling of local products* and *exhibits about the history of the park*. The results indicated that DNLs were also interested in culture-related products/ offers, however, their level of interest was lower than it was for products/ offers addressing their motivations. Additionally, a weak positive correlation was found with *rental of binoculars* and *audio guides*. Although the DNLs are motivated to observe the flora and fauna, their level of interest in renting binoculars is lower which may be explained by their dedication and being somewhat fanatic about nature, and therefore a great part of the DNLs might bring their own binoculars for the park visit.

A significant relationship with willingness to pay for *guided tours*, *workshops* and *information material* was also identified, however, the level of willingness to pay of those being more dedicated-nature-motivated decreased as the direct contact with nature was less involved in the products/ offers, assuming that the *guided tours* (moderate positive correlated) offer the highest direct contact with nature and that *workshops* (weak positive correlated) usually take place indoor and thus, direct nature contact is limited.

Moreover, analysis with the importance of sustainable-product-items revealed that respondents who rated highly on the DNL motivational dimension placed a great deal of importance on the following five sustainable product characteristics: *environmental awareness of the visitors is raised*, *knowledge about nature is imparted*, *my participation has only the smallest possible impact on nature*, *number of park visitors per day should be limited* and *revenues are used for the protection and conservation of nature* (strong positive correlations). Furthermore, a moderate positive correlation also

indicated a significant relationship with the items *focus is on conservation of nature and natural resources*, *offer is customized to nature and its circumstances* and *workshops and guided tours are offered by locals*. Hence, the more visitors are motivated to observe nature, the more important it is for them that products/ offers aim at protecting nature and imparting knowledge in order to allow a sustainable use. Additionally, the involvement of the local community has a higher level of importance for them (as *workshops and guided tours are offered by people from my home country* indicated a weak positive relationship). A weak relationship was also found with *availability of local products and services*, *offers can be booked through tour operators* and *mother tongue is language of exhibitions* which indicated that level of importance is lower for these requests, but still they are important to those visitors being more nature-motivated.

Analysis of variance identified a significant relationship with age which indicated that visitors being 66 years or older were more likely to be DNLs, followed by those aged between 55 and 65, and 34 and 45. This may be explained by the reason that especially elder people have the ease to enjoy tranquility and observe nature. Also, due to their experience of life, they may appreciate natural resources more than those of a younger age.

There was a strong positive correlation that indicated a significant linear relationship between the *Culture-Explorer* (CuEx) and the following four interest-in-products/offers-items: *guided tour by foot*, *workshop for local handicrafts and products*, and *exhibits about the history of the park*. The findings noted that as the park visitors' motivations such as learning about nature and lifestyles, visiting historical attractions, and seeing local exhibits increased, interest in culture-related products/ offers also increased. Moreover, a moderate positive relationship was found with *workshop for plant and bird identification*, *selling of local products* and *guided photography tours*. The results indicated that CuExs were also interested in nature-related products/ offers. Interestingly, it can be noted that the level of interest in the same products/ offers is contrary to that of the DNLs. Additionally, a weak positive relationship was found with *rental of binoculars*, *audio guides* and *guidebooks for bird identification*, and *interactive media* which indicated that respondents, who rated highly on the culture-related motivations, also had a low interest in learning about nature. Additionally, a lower level of interest was revealed in *guided tour by bike* and *merchandise*.

A significant relationship with willingness to pay for *guided tours*, *rental of material* and *binoculars* was also identified, however, the level of willingness to pay for guided tours was a bit higher than for the rentals.

Moreover, analysis with the importance of sustainable-product-items revealed that respondents who rated highly on the CuEx motivational dimension placed a great deal of importance on *offers can be booked through tour operators* (strong positive correlation). Furthermore, a moderate positive correlation also indicated a significant relationship with the items *workshops and guided tours are offered by locals, knowledge about nature is imparted, availability of local products and services, and number of park visitors should be limited*. Hence, the more visitors are motivated to learn about culture, the more important it is for them that products/ offers involve the local community and culture. Additionally, they favor the sustainable use of nature by limiting visitor numbers and imparting knowledge. A weak relationship was also found with *focus is on conservation, my participation has only the smallest possible impact, environmental awareness is raised*, as well as with *the experience itself is focused, offer customized to nature, and workshops and guided tours are offered by people from my own country* which indicated that level of importance is lower for these requests, but still they are important to those visitors being more culture-motivated. Again, these results indicate that CuEx also care about nature and its protection.

Analysis of variance identified a significant relationship with age which indicated that also visitors being 66 years or older were more likely to have culture-related motivations, followed by those aged between 36 and 55. Additionally, the analysis revealed a significant relationship with education. Respondents with a secondary education or less were more likely to be motivated as *Culture-Explorers*.

As for the *Adventurer*, there was a moderate positive correlation that indicated a significant linear relationship with the level of interest in *guided tour by bike, interactive media offering and app for smartphone*. The findings noted that as the park visitors' motivations such as being physically active increased, interest products/ offers related to activity also increased. Moreover, a weak positive relationship was found with *merchandise, selling of local products, guided photography tours, rent a bike and exhibits about the history of the park*. The results indicated that visitors being more adventure-motivated were mainly interested in products/ offers that supported their physical activity but also had a low level of interest in seeing exhibits and getting to know local products.

A significant but very weak relationship with willingness to pay for *rental of material* was also identified.

Moreover, analysis with the importance of sustainable-product-items revealed that respondents who rated highly on the adventure motivational dimension placed a great deal of importance on *the experience itself is focused* (strong positive correlation). Furthermore, a moderate positive correlation also indicated a significant rela-

tionship with the *offers can be booked through tour operators*, and *number of park visitors should be limited*. Hence, the more visitors are motivated to experience something exciting, the more important it is for them that products/ offers put focus on the experience. Additionally, they favor the sustainable use of nature by limiting visitor numbers and being able to book the experience through tour operators is somewhat important to them. A weak relationship was also found with *unrestricted use of nature*, and *workshops and guided tours are offered by people from my own country* which indicated that adventure-motivated visitors do not set high value on protecting nature as they indicated a level of importance on unrestricted use.

Analysis of variance identified a significant relationship with nationality in which Germans are more likely than British to engage in adventure experiences. This finding could be explained by the Germans' definition of 'happiness': leisure researchers found that Germans consider vacation as the greatest happiness. It mostly should be in striking contrast to everyday life and therefore, adventures are highly favored (Stegert, 2012).

There was a moderate positive correlation that indicated a significant linear relationship between the *Relaxation-and-Variety-Seeker (RVS)* and *rental of guidebooks for bird and plant identification*. The findings noted that as the park visitors' motivations such as relaxing and escaping the stress of everyday life increased, interest in nature-knowledge-related products/ offers also increased. Moreover, a weak positive relationship was found with *workshop for local products and handicraft*, *selling of local products*, and *guided bike, foot and photography tours* as well as with *interactive media offering*, *rent a bike* and *exhibits about the history of the park*. The results indicated that RVS were not only interested in nature-related products/ offers but to some extent also in products related to local culture and physical activity.

A significant relationship with willingness to pay for *guided tours* and *rental of binoculars* was also identified (weak correlated) which indicated visitors being more RVS motivated were also willing to pay more for these products/ offers.

Moreover, analysis with the importance of sustainable-product-items revealed that respondents who rated highly on the RVS motivational dimension placed a great deal of importance on *the experience itself is focused* and *offers can be booked through tour operators*. Interestingly, they combine the strong positive correlations of *CuEx* and *Adventurer*. Furthermore, a moderate positive correlation also indicated a significant relationship with the items *workshops and guided tours are offered by locals*, *environmental awareness is raised*, *mother tongue is language of exhibitions*, and *number of park visitors should be limited*. Hence, the more visitors are motivated to escape from their everyday surroundings, the more important it is for them that prod-

ucts/ offers involve the local community and address conservation of nature, however, it is also important for them that their own language is spoken/ represented. A weak relationship was found with *knowledge about nature is imparted, my mother tongue is the language of communication, availability of local products and services, and workshops and guided tours are offered by people from my own country*. These findings indicate that even though visitors being more relaxation-motivated and wanting to leave their usual surroundings, they consider the presence of their native language to be somewhat important as well as having people from their home country present.

Analysis of variance did not identify any significant relationship with age, education, gender or nationality.

b) Llevant

There was a weak positive correlation that indicated a significant linear relationship between the *Culture-Explorer* in Llevant and the following six interest-in-products/offers-items: *workshop for local products and handicrafts, workshop for plant identification, exhibit about the history of the park, hiking booklet and farmer's market*. The findings noted that as the park visitors' motivations such as learning about (agri-)culture and nature increased, interest in products/ offers involving local culture and addressing nature increased. Interestingly, compared to the CuEx in s'Albufera, level of interest in the very same products is much lower.

A significant relationship (but very low correlated) with willingness to pay for *rental of Nordic walking equipment* was identified, which indicated that more culture-related visitors would be willing to pay for the rental.

Moreover, analysis with the importance of sustainable-product-items revealed that respondents who rated highly on the CuEx motivational dimension placed some importance on *environmental awareness of the visitors is raised and knowledge about nature is imparted* (moderate positive correlations). Furthermore, a weak positive correlation also indicated a significant relationship with the *focus is on conservation of nature and natural resources, and revenues are used for the protection and conservation of nature*. Hence, the more visitors are motivated to learn about (agri-)culture, the more important it is for them that products/ offers aim at protecting nature. Interestingly, and even though they are interested in products involving local culture, the CuEx in Llevant does not put a high value of importance on involvement of local community.

Analysis of variance did not identify any significant relationship with age, education, gender or nationality.

As for the *Nature-Scout* (NS), there was a moderate positive correlation that indicated a significant linear relationship with the level of interest in *workshops for plant and bird identification*. The findings noted that as the park visitors' motivations such as exploring wilderness and helping conserving nature increased, level of interest in products/ offers related to knowledge about nature also increased. Moreover, *rent a bike, guided tour by bike* and *app for smartphone* were negatively correlated with the NS motivational dimension which indicated that the more visitors were motivated to explore and discover nature, the least likely they were interested in making use of bikes and moving quickly through the park or using an app on their smartphone which would distract them from discovering nature.

Rent a bike was again negatively correlated when analyzing the willingness-to-pay which confirmed the findings of interest-in-products/ offers. As NS were less likely to rent a bike, they were also less likely willing to pay for it.

Moreover, analysis with the importance of sustainable-product-items revealed that respondents who rated highly on the NS motivational dimension put some importance on *focus is on conservation of nature* (moderate positive correlation) as well as low importance on *environmental awareness of the visitors is raised, knowledge about nature is imparted* and *revenues are used for the protection and conservation of nature* (low positive correlated). Furthermore, *the experience itself is focused* was negatively correlated. Hence, the more visitors are motivated to discover nature, the more important it is for them that products/ offers put focus on conserving nature and imparting knowledge but it is less important that the experience itself is focused. This could be explained by their motivation wanting to explore nature, which might be already the experience itself and therefore, they do not need an additional experience factor.

Analysis of variance identified a significant relationship with gender in which females are more likely than males to be nature-scout motivated. Additionally, analysis of variance revealed a significant relationship with age which indicated that visitors being aged between 55 and 65 were more likely to have NS motivations. A reason might be that females at that age are generally more interested in discovering nature and its variety, and being 'taught' through workshops is generally preferred by females.

There was a weak positive correlation that indicated a significant linear relationship between the *Relaxation-and-Variety-Seeker* in Llevant and the following four interest-in-products/offers-items: *workshop for local handicrafts, farmer's market, visitation of*

country estates and *rental of binoculars*. The findings noted that as the park visitors' motivations such as relaxing and seeing maximum of Mallorca increased, interest in products/ offers involving local culture and products also increased. Interestingly, compared to the RVS in s'Albufera, it seems as if in Llevant RVS visitors prefer to be independent as no significant relationship was identified with *guided tours* which was favored among the visitors in s'Albufera.

No significant relationship with willingness to pay was identified, which indicated that more RVS-motivated visitors would not be willing to pay more for any products/ offers.

Moreover, analysis with the importance of sustainable-product-items revealed that respondents who rated highly on the RVS motivational dimension placed some importance on *environmental awareness of the visitors is raised* (moderate positive correlation) and lower importance on *knowledge about nature is imparted* and *the experience itself is focused*. Hence, the more visitors are motivated to relax, see as much as possible and be close to nature, the more important it is for them that products/ offers aim at imparting knowledge and raising awareness about nature while the experience is focused.

Analysis of variance identified a significant relationship with age in which visitors aged between 36 and 55 were more likely to be RVS-motivated. This could be because usually people at that age are active in working life and therefore highly need a change from everyday life to rest and gain energy.

As for the *Self-Challenger* (SC), there was a low positive correlation that still indicated a significant linear relationship with the level of interest in *rental of Nordic walking equipment* and *app for smartphone*. The findings noted that as the park visitors' motivations such as challenging myself physically, relieving stress and tension, and spending time together increased, interest in Nordic walking and an app also increased, hence products that support their activity. Moreover, *workshop for bird identification* was negatively correlated with the SC motivational dimension which indicated that the more visitors were motivated to be physically active, the least likely they were interested in partaking in workshops about birds.

Workshops and *guided tours* were negatively correlated when analyzing the willingness-to-pay which confirmed the findings of interest-in-products/ offers that the more SC motivated visitors are, the less likely they are willing to pay for educational products/ offers as they are also less likely to be interested in them.

However, analysis with the importance of sustainable-product-items revealed that respondents who rated highly on the SC motivational dimension put low importance

on *environmental awareness of the visitors is raised and the experience itself is focus*. Hence, the more visitors are motivated to challenge themselves, the more important it is for them that products/ offers put focus on the experience but still participants' awareness towards nature should be raised. Furthermore, *my mother tongue is the language of communication* was negatively correlated which indicated that it was less likely to be important for SC motivated visitors that their native language is spoken. This could be explained by SC visitors' motivation in wanting to challenge themselves, and therefore, they might consider facing a foreign language as a challenge as well.

Analysis of variance identified a significant relationship with age which indicated that visitors being younger than 46 years were more likely to be SC motivated. A reason might be that younger people are generally physically fit and more active, and therefore are eager to test their own boundaries.

5.3 Conclusions

In the literature review of this thesis, nature-based tourism was identified as an overlapping of different forms, such as adventure tourism, agri-culture tourism, wildlife and ecotourism, with each of these forms representing different levels of sustainability. By researching tourists' motivations for a park visit on Mallorca, this study found four distinct motivational dimensions among the visitors in the natural parks s'Albufera and Llevant, respectively, supporting the assumption of overlapping.

In s'Albufera, visitors who registered high on the *Dedicated Nature-Lover* dimension, had their major motivation in observing fauna and flora, exploring wilderness (attraction motivation), and learning and increasing knowledge about nature (self-fulfillment motivation). Therefore, they indicated a high level of interest in products that offer environmental but also cultural education. These findings and the respondents' rating of importance of sustainable product characteristics (e.g. focus is on conservation, smallest possible impact and offer is customized to nature) classify them as wildlife tourists as well as ecotourists, as four of the five UNWTO's criteria for ecotourism are addressed (see Chapter 2, p. 29). The second motivational dimension that was identified in s'Albufera was the *Culture-Explorer* that indicated different fields of interest, mainly focusing culture (including agri-culture features) and nature. As these respondents' also indicated interest in educational offers about nature and gaining knowledge about culture, and additionally reported importance of the same sustainable product characteristics as the DNLs did (even though the level of importance was somewhat lower), *Culture-Explorers* combine elements of ecotourists and agri-

tourists. However, focusing the experience itself was also important for them, therefore it is essential that products/ offers do not only have educational background but also include an experience/ fun factor. Hence, suitable products would be those of edutainment type.

As Millington et al. (2001) reported, the *Adventurer* is in fact activity-driven and nature is rather a setting than the main motivation as the findings in s'Albufera indicated. Furthermore, these participants reported interest in products/ offer that would give them the possibility of learning. Hence, according to Christiansen (1990), these visitors in s'Albufera are soft-Adventurers as their focus is on physical activities but also show interest in enriching activities, such as exhibits about the history of the park. Moreover, the findings indicate that *Adventurers* are less interested in sustainability as unrestricted use is important for them and the experience should be focused, which confirms Newsome et al.'s view (2002).

The fourth identified motivational dimension in s'Albufera, the *Relaxation-and-Variety-Seeker*, reported interest in educational offers but also in products that support their physical activity. To them it is important that the experience is focused but also that they gain knowledge from the local community about the environment. Hence, as for the *Culture-Explorers*, it also is essential that edutainment products are created to stimulate the RVS interest. RVS are to some extent wildlife-tourists, as they are interested in bird and plant identification but they are rather generalists, meaning having an overall interest in nature and wildlife (Pennisi et al., 2004).

As for Llevant, visitors who rated high on the *Culture-Explorer* dimension were, like the CuEx in s'Albufera, mainly interested in culture (including agri-culture features) and nature. However, in Llevant, flora was the field of interest of nature. They also rated conservation of nature and environmental awareness important but contrary to s'Albufera, the experience factor was not reported to be important which could mean that CuEx visitors to Llevant are more focused on education and learning. Hence, ecotourist characteristics are somewhat stronger. The same findings were reported for *Nature-Scouts*, but with the small difference that these respondents were interested in both, fauna and flora, and that culture was not a field of interest. Again, products for NS motivated visitors should focus education and knowledge.

As for the *Relaxation-and-Variety-Seeker* in s'Albufera, also for visitors to Llevant being relaxation-motivated, edutainment products/ offers should be created as they rated the importance of focusing the experience high as well as gaining knowledge. But in Llevant these participants are mainly interested in culture and in natural products, and therefore have predominantly agri-tourist combined with wildlife tourist (meaning flora wildlife) characteristics.

The visitors who rated high on the *Self-Challenger* motivational dimension were like the *Adventurer* in s'Albufera activity-driven. Furthermore, the focus of the experience was mainly important to these participants. In contrast to *Adventurers*, they are not even interested in enriching activities. As they are motivated to challenge themselves, they might be ranked among hard adventurers. For the *Self-Challengers*, the park is just a place where they can be physically active. They do not care much about sustainability even though they indicated little importance on *environmental awareness should be raised*. Thus, it might be only important to provide equipment for rental that SC motivated visitors might need for their activity.

Overall, this study found that motivations for and interests in a park visit are multifaceted and therefore a clear definition of nature-based tourism in natural parks is rather impossible.

However, the examination of this thesis proved that nature-based tourists on Mallorca have in fact a demand for sustainable products and can be a catalyst of sustainable tourism development as almost all respondents indicated that products/ offers should raise environmental awareness, impart knowledge about nature, and revenues should be used for protection and conservation of nature. Even though visitors to s'Albufera reported that workshops or guided tours should be offered by people from their own country, they placed higher importance on having workshops or tours offered by locals which indicates that products/ offer creation should involve the local community and therefore would provide employment opportunities. Visitors are also highly interested in learning about culture which could lead to a cultural exchange with the local community so that locals should a) be supported to learn foreign languages and b) have an enriching experience by communicating with the tourists.

As Stolton (2009) reported, this study also indicated that visitors consider the natural parks as a place for recreation, environmental education, and getting to know the regional and national cultural identity.

Some positive impacts that nature-based tourism in Mallorca's natural areas could have were highlighted in this thesis and should be considered for the future development of the parks, however, it is essential that the principles of sustainable development are implemented.

5.4 Practical Implications

The insights gained in examining natural park visitors' motivations and interests imply that natural area managements should analyze their own visitors for developing new

products and marketing strategies rather than taking theory and stereotypes of nature-based forms of tourism as their starting point.

The research findings provide the foundation for this approach by demonstrating that the visitors to s'Albufera and Llevant have a strong motivation to explore nature and gain knowledge but also that activity and the experience itself should be focused.

The results show that s'Albufera is a park in which all types of visitors want to gain knowledge in any way. Workshops, guided tours and guidebooks are of high interest for the *Dedicated Nature-Lover*, *Culture-Explorer* and *Relaxation-and-Variety-Seeker*. These results indicate that these visitors want to be actively involved in the learning process.

Possible products/ offers could be a guided tour during the early-morning hours (before the usual opening hour). Visitors would meet their guide an hour before sunrise (earliest sunrise on Mallorca is at 6:21 am and the latest at 8:14 am, depending on the season (Stapelfeldt, 2013)). The guide will then take the visitors to the best locations in the park where they will hear and see the birds' awakening. Visitors will be given the opportunity to listen to the birdsongs and the guide teaches them how to identify the species based on their birdsongs. Additionally, the tour could include showing the breeding grounds of different bird species. Teaching and learning content might include topics such as when and how birds build their nests, average number of eggs per breeding season, and if there are differences of eggshells. The number of participants in the early-morning tours would have to be limited as the birds should not be disturbed in their habits, especially when it comes to breeding. In the case of such tours, edutainment (which especially is interesting for the *Culture-Explorer* and the *Relaxation-and-Variety-Seeker*) would allow to increase the visitors' knowledge by having a unique experience at the same time.

The optimal match would be a tour late in the evening, after the park has already closed, starting an hour before sunset (earliest sunset is at 5:26 pm and the latest at 9:21 pm, depending on the season (Stapelfeldt, 2013)). This tour could be focused on birds looking for a sanctuary at night. While observing the birds approaching, the guide can teach the visitors about the species, their behavior and characteristics. Additionally, the tour could include a photography class. As there is no harsh sunlight before sunset, the timing would allow the opportunity to take sharp pictures. During the class, participants should learn which camera settings are adequate for photographing fast-moving birds. The bird hides, that already exist in s'Albufera, might be used as observation points, as they allow a wide view and at the same time seating-accommodation for approximately eight participants.

Moreover, a species checklist could be prepared that includes a short description and some information about their behavior and where in the park these species can be found. Visitors would be able to get the list for a small amount of money. Such an offer would give visitors the opportunity to explore the park on their own, but they would also be able to gain and enhance their knowledge about wildlife. A similar list could be prepared for plants.

Since s'Albufera has also more than 200 species of fungi, a workshop could be launched that includes a guided tour through the park, showing the habitats where the funguses grow, and providing guidebooks to the visitors that help them to identify the fungi species. The park management's kitchen facilities could then be used for a class that teaches them how to prepare mushrooms for cooking. As the workshop should be based on interaction, it is important to keep the number of participants limited. The kitchen facilities would offer enough space for about ten participants which should be an adequate number of participants.

S'Albufera has also a research laboratory. During the year, different researchers visit the park and work there for some weeks. In co-operation with the researchers, the park could offer an *insight into research class*. Depending on the topic of research, the scientists could teach the participants about their work, the importance and approach of the research as well as the expected findings. Moreover, they could show the visitors how they research and obtain their results. A class like this would give participants on the one hand the opportunity to gain an insight into research and understand its necessity, and on the other hand they, of course, would be taught about nature and the specialties s'Albufera has to offer, and why it is important to protect and conserve its natural resources.

For the *Adventurer* it is sufficient to have guided tours that enrich their knowledge without having too much of a learning process. For instance, a guided photography tour showing them the best spots of the park for taking pictures might be a suitable offer that addresses their needs but would probably also be requested by the DNLs, CuEx and RVS. During such tours the visitors can be physically active, even a bike tour should be considered to be offered, and they will be given the opportunity of seeing the natural beauty which might lead to higher appreciation of nature.

In Llevant, workshops are favored by the *Culture-Explorer*, *Nature-Scout* and *Relaxation-and-Variety-Seeker*, and should concentrate on plant and bird identification as well as on local products and handicrafts. Visitors to Llevant want to gain new knowledge through direct learning exchanges with the locals but to explore the park itself, they rather want to be independent than partaking in guided tours. Interesting could be in fact a farmer's market selling local products as well as a workshop ad-

displaying the park's natural products (such as figs, olives, St. John's wort or cat thyme) in which the participants learn about their uses and effects. An interactive part, and therefore of entertainment type, could be included in the workshop and could cover classes such as typical Spanish cooking or even the use and preparation of natural remedies. Also, a very own tea made of herbs growing in Llevant could be made and sold.

In order to offer a very own product of the park, some beehives could be set up throughout the park. A co-operation with a local apiculturist could be established that takes care of the honey production and may even offer a workshop to visitors. Participants would get to know local species of bees, and would learn about the natural processes of honey production and would be given an insight into beekeeping. Eventually, tourists may take home newly extracted honey by themselves, or the honey can be either sold at the farmer's market or at the information center.

All natural products that can be found in the natural park of Llevant could furthermore be used for another workshop concentrating on the production of natural cosmetics. The Mallorcan company *Gaia Natural*, based in Andratx, makes use of traditional methods to produce and offer "environmentally friendly soaps, moisturizers, gels, washes and scrubs [by] using sustainably and biologically grown flowers, herbs, Olive and Sweet Almond oils that are native to Mallorca" (Gaia Natural, 2011). Therefore, and as park visitors are interested in learning about local products and handicrafts, a co-operation with *Gaia Natural* might be perfect. The company could use the herbs, olives and figs that grow in Llevant as well as the honey that would be produced in the park for their production of cosmetics. Additionally, some of its employees would show and teach visitors how selected cosmetics are produced (such as soap, body lotions or lip balms) during a workshop. Participants would not only gain insight into local handicraft and traditional methods, but they would also learn and realize that nature delivers the simplest and purest of ingredients and that no chemicals at all are needed. The cosmetics of *Gaia Natural* could, of course, also be sold at the farmer's market in the park or at the information center. As the company works with different businesses, such as hotels, wedding planners, event managements and hairdressing salons, the park would surely benefit from the co-operation as it would be the supplier of some of the ingredients of the *Gaia Natural* products and hence, Llevant would be made known and popular by the cosmetic company all over the island. Finally, tourists or residents who learn about the park by using the cosmetics might get interested in visiting Llevant.

Even though guided tours were of average interest in Llevant, a unique experience could be created that attracts the visitors and convinces them to partake. A *night sky tour* through the park would offer the visitors on the one hand the opportunity of ex-

ploring starry night skies and natural darkness, but on the other hand they would also get to know the behavior of nocturnal animals and hear unusual sounds. Another option could be a *torch light tour*. Participants would be equipped with a torch light only, and in a small group and accompanied by a guide, they would explore the park. Such tours would combine learning about nature and having an exciting adventure at the same time.

However, some visitors to Llevant (*Self-Challenger*) do not wish to have any learning process about nature at all and concentrate on their activity. Frequencies (79% of the respondents) indicated that bike rental should be on offer in both parks as well as Nordic walking equipment in Llevant. Especially in Llevant, bike rental should be considered as the park covers an extensive area and visitors might prefer moving faster through the park than by foot only. A possible co-operation could be established with the city council *Ajuntament de Palma* and the car park company *Societat Municipal d'Aparcaments* (SMAP) that introduced public bike rental stations (called *BiciPalma*) throughout the Mallorcan capital in 2012 (Ajuntament de Palma, 2013). The system of *BiciPalma* could be adapted to all natural parks on Mallorca and could be called *BiciNatur*a. Such stations would have to be set up in the parks and the visitors could rent the bikes easily for a certain amount of time by paying with credit card and hence, deposit payment would be ensured. *BiciPalma* could draw residents' and tourists' attention to *BiciNatur*a (and hence to the natural parks) by including a note about *BiciNatur*a on advertisements, posters or even a sticker on the mudguards of the bikes, showing the logo or name of the parks and *BiciNatur*a.

An activity-focused offer could be the establishment of high level ropes in a tree-covered area of the park. The visitors can challenge themselves physically by climbing, zip lining or walking over suspension bridges. So far, such facilities are only available in the reserve *Puig de Galatzó* (La Reserva, 2013) which is located in the western part of the island, in the municipality of Puigpuyment and is part of the Sierra de Tramuntana (a UNESCO World Heritage). Such rope challenge courses would be a brand-new offer on the East coast of the island which might attract tourists spending their vacation mainly in this area of Mallorca and once attracted, these tourists might even decide to see more of the natural park and make use of other offers and products.

It should be noted that the municipality of Artà, close to the natural park, has a tourist card on offer since 2012. The card can be used for discounts in stores, museums, cathedrals and restaurants (Artà Mallorca, 2012). All workshops, rentals and products could be integrated in the concept of the Artà Card which would give the tourists a discount while visiting Llevant. Additionally, it would be a marketing tool to make the natural park known in the municipality and call the tourists attention to it. Moreo-

ver, as tourists would have to present their cards in order to get a discount, it would be a great opportunity for market research and analyzing the use and success of the Artà Card.

Once the offer in Llevant has been established, it might be worth to consider offering a *call-a-bus-service* which would allow the visitors to call a hotline and ask for bus transportation back to the parking lot, from any point inside the park. The park covers an extensive area and therefore, it is hard for the visitors to explore long trails as they have to return to their cars. Such a bus service would provide the opportunity of care-free hiking throughout the park. However, the bus operator should be carefully chosen as emissions would cause environmental damage to the park. Hence, electric minibuses or vans would be a sustainable option.

Generally, all respondents indicated the following willingness to pay which should be considered when creating products/ offers: guided tours 5-7€, workshops 5-10€, bike rental 5-10€ (depending on the amount of time), rental of guidebooks and Nordic walking equipment 3-5€. However, when offering a rental it should be ensured that visitors bring back the equipment or books, for instance by asking for a deposit.

Moreover, the findings of satisfaction indicated that the visitors to both parks are overall satisfied with the offer, however, the exhibition in the information center of both parks should be improved as well as its opening hours in Llevant. As for the information centers, interactive media touch screens might be recommended to give the visitor the opportunity to be part of the exhibition. They can then control the information and learning process by choosing topics that they are interested in. Furthermore, the exhibitions should be presented in foreign languages as two of the four motivational groups placed importance on their mother tongue being represented in s'Albufera, and also about 58% of its respondents and 57% in Llevant reported the foreign language issue as being important. In Llevant, visitors also reported that signposting should be improved. This might be achieved by indicating the length of hiking trails as well as the time needed to cover the distance on the sign posts throughout the park, as several visitors expressed this wish while taking the survey.

Even though different visitor groups indicated that booking the offers through tour operators as being important, frequencies showed that between 65% - 80% of all respondents did not consider this possibility as important. Therefore, the products/ offers should rather be promoted by adverts in guidebooks (as 41% of all respondents found out about the parks by reading a guidebook), or by distributing leaflets to hotels and the tourist information (18%), and to car rentals (62%). Leaflets should provide information about the opening hours, the park's location as well as activities and offers, and some background information of the park's protection category and

natural resources. By reading the leaflet, tourists could already get an idea of what to expect when visiting the park.

5.5 Limitations

The findings are not generalizable to all groups of tourists on Mallorca, due to sampling of visitors from Germany and the UK only. As the research was undertaken during spring only, findings may differ depending on the season of the year. Moreover, this research focused natural parks only. Findings and recommendations given may vary depending on the type of protected area researched.

5.6 Recommendations for Future Research

Due to the exploratory nature of this study, further research on the motivations of park visitors on Mallorca is needed among other nationalities and during other seasons of the year to verify the motivational dimensions and interest in products/ offers. Furthermore, as these findings are specific to natural park visitors in the North of Mallorca, they are not generalizable to other types of protected areas. Therefore, future research could utilize the findings of this study and investigate similar visitor profiles in other protected areas to underline any common grounds between the current findings and the findings of future studies. Findings made on certain socio-demographics, such as age and education, need to be explored further to determine precise visitor profiles. Research outside of Mallorca may enhance general knowledge about nature-based tourism in natural areas. Additionally, it would be of interest to research the motivations and interests of the local community and compare them to the tourists in order to create products/ offers that meet the overall demand.

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Appendix B. The Methodology of Studies of Nature-Based Tourism Motivations

Researchers	Country of Tourists	Tourists Destination	Research Approach	Sample Size	Data Analysis
Ecotourists					
Ballantine & Eagles (1994)	Canada	Kenya	Quantitative Questionnaire	120	Factor analysis
Diamantis (1998)	UK	Australia	Qualitative & Quantitative Questionnaire	1.610	Factor analysis, Cluster analysis, Mean scores, Regression analysis
Tao et al. (2004)	Domestic and international tourists	Taiwan	Quantitative Questionnaire	404	Cluster analysis, Chi-SquareTest, t-Tests
Kwan et al. (2008)	Domestic and international tourists	Belize	Quantitative Questionnaire	331	Mean scores, Frequencies, ANOVA Test, Chi-SquareTest
Hartley & Harrison (2009)	Domestic and international tourists	Australia	Quantitative Questionnaire	992	Factor analysis
Wildlife tourists					
Hvenegaard (2002)	Domestic and international tourists	Thailand	Quantitative Questionnaire	137	Factor analysis, Chi-Square Test, One-way analysis
Parsons et al. (2003)	Domestic and international tourists	Scotland	Quantitative Questionnaire	324	Mean scores, Frequencies
Eubanks et al. (2004)	USA	USA	Quantitative Questionnaire	2.420	Cluster analysis
Sali et al. (2007)	USA	New York, USA	Qualitative & Quantitative Questionnaire	1.000	Factor analysis
Agri-tourists					
Norby & Retallick (2012)	USA	Iowa, USA	Quantitative Questionnaire	415	Descriptive statistics, t-tests
Adventure tourists					
Meisel & Cottrell (2003)	Domestic and international tourists	Florida Keys, USA	Quantitative Questionnaire	300	Mean rank scores, t-tests, one way analysis
Dickson & Dolnicar (2006)	Domestic and international tourists	New Zealand	Quantitative Questionnaire	542	Factor analysis
Chang & Huang (2012)	Domestic and international tourists	Taiwan	Quantitative Questionnaire	193	Factor analysis, Correlation analysis, Regression analysis

Appendix B.1 The Methodology of Studies of Nature-Based Tourism Motivations - Travel Motivations of Ecotourists

Study	Travel Motivation
Ballantine & Eagles (1994)	<ul style="list-style-type: none"> • tropical forests • wilderness and undisturbed nature • learn about nature • birds • lakes and streams • trees and wildflowers • photography of landscape/wildlife • mammals • be physically active • meet people with similar interests • mountains • oceanside • see maximum in time available • rural areas
Diamantis (1998)	<ul style="list-style-type: none"> • see natural environment • experiencing local cultures and lifestyles • traveling to wild places • studying natural habitats • exploring the area • being educated • increasing knowledge • meeting new people • outdoor/recreation activities • historical attractions
Tao et al. (2004)	<ul style="list-style-type: none"> • learning about nature • participating in recreation activities • learning a new outdoor skill • photography of landscape/wildlife • wilderness and undisturbed nature • rural areas • birds • trees and flowers • change from busy life • being entertained • a place that feels safe and secure • having fun • see maximum in time available

Appendix B.1 The Methodology of Studies of Nature-Based Tourism Motivations - Travel Motivations of Ecotourists - *continued*

<p>Kwan et al. (2008)</p>	<ul style="list-style-type: none"> • tropical forests • wilderness and undisturbed nature • archaeological sites • warm climate • barrier reefs • trees and wildflowers • photography of landscape/wildlife • birds • lakes and streams • mammals • learn and explore nature • go to places where one feels safe • be physically active • have fun and be entertained • being together as a family • meet people with similar interests • see maximum in time available
<p>Hartley & Harrison (2009)</p>	<ul style="list-style-type: none"> • feeling a sense of control over natural environment • challenging my abilities • impressing family & friends at home • being in an unpredictable environment • increasing my physical fitness levels • placing myself in risky situations • relaxing mentally & physically • having a change from my daily routine • spending time with loved ones • increasing knowledge of the natural environment • feeling close to nature • enjoying nature • feeling stimulated • feeling excited

Appendix B.2 The Methodology of Studies of Nature-Based Tourism Motivations - Travel Motivations of Wildlife Tourists

Study	Travel Motivation
Hvenegaard (2002) – bird watching	<ul style="list-style-type: none"> • seeing birds • learning bird habitats and behaviors • seeing other animal groups • seeing trees and wildflowers • seeing national parks & tropical forests • taking pictures of wildlife and scenery • learning about Thai culture • meeting people with similar interests
Parsons et al. (2003) – whale watching	<ul style="list-style-type: none"> • enjoying landscape • enjoying seascape • seeing wildlife • being outdoor • culture • remoteness • peace & quiet
Eubanks et al. (2004) – bird watching	<ul style="list-style-type: none"> • to be alone • to be outdoors • to enjoy the sights, smells and sounds of nature • to be with friends • to get away from the demands of life • for family recreation • to improve my birding skills and abilities
Sali et al. (2007) – bird watching	<ul style="list-style-type: none"> • traveling to different places • taking photographs of birds • being with friends • meeting new people who have the same interest • communing with nature • understand and appreciating the nature better • renewing or refreshing my spiritual self • experiencing inner peace that birding provides • sharing knowledge • going outdoors and enjoying wildlife and the natural environment • enjoying the sight and sounds of birds • getting physical exercise • relaxing and escaping from everyday activities • being alone • enjoying something that is fun and exciting • studying bird behavior and bird migration • contributing to the conservation of birds

Appendix B.3 The Methodology of Studies of Nature-Based Tourism Motivations - Travel Motivations of Agri-Tourists

Study	Travel Motivation
Norby & Retallick (2012)	<ul style="list-style-type: none"> • spending time with family/ friends • supporting local farmers • purchasing fresh products • enjoying rural scenery • learning about local agriculture

Appendix B.4 The Methodology of Studies of Nature-Based Tourism Motivations - Travel Motivations of Adventure Tourists

Study	Travel Motivation
Meisel & Cottrell (2003) – divers	<ul style="list-style-type: none"> • to look at underwater animal and plant life • to explore things • because its stimulating and exciting • to create an experience I can look back on • for the adventure of it • for a change from everyday life scenery • because of the sense of discovery involved • to experience the tranquility here • to learn more about the underwater environment • to meet new people • to take pictures • for relaxation • to develop my diving skills and knowledge
Dickson & Dolnicar (2006) - hikers	<ul style="list-style-type: none"> • to enjoy outdoors • to relax • to get away • scenic beauty • to exercise • to meet new people • to learn flora & fauna • to enjoy solitude • to encounter wilderness • personal goals • new experience
Chang & Huang (2012) - paragliders	<ul style="list-style-type: none"> • to establish interaction with others • to challenge nature • to enjoy group experience • to have adventure experience • to avoid the hustle and bustle of daily activities • to relieve stress and tension • to relax physically and mentally • to be close to nature • to experience sense of stimulation • to be with one's friends

Appendix C. Survey – Nature Park Visits'Albufera

Questionnaire #:

1. Is this your first visit to this park? (1) Yes (2) No
2. How did you find out about the park?
- (1) internet (2) travel agent/tour operator (3) tourist information
 (4) newspaper/magazine (5) guidebook (6) by chance
 (7) family, friends, relatives (8) recommended by accommodation host
 (9) other
3. Which mode of transport have you used to travel to the park?
- (1) rental car (2) public transport (3) motor-coach (4) motorbike/scooter
 (5) bike (6) on foot (7) other
4. Indicate the importance of the following statements for your park visit by circling one of the five numbers after each statement. (5 = very important, 4 = important, 3 = undecided, 2 = less important, 1 = not at all important)

to explore wilderness and undisturbed nature	5	4	3	2	1
be physically active	5	4	3	2	1
to observe the fauna (wildlife)	5	4	3	2	1
to have fun	5	4	3	2	1
to learn about Mallorcan culture and lifestyles	5	4	3	2	1
to have something to share with family and friends at home	5	4	3	2	1
to help conserving nature	5	4	3	2	1
to escape the stress and surroundings of everyday life	5	4	3	2	1
to observe the flora	5	4	3	2	1
to be alone	5	4	3	2	1
to see local exhibits	5	4	3	2	1
to relax and gain new energy	5	4	3	2	1
to enjoy nature	5	4	3	2	1
photography of wildlife/ landscape	5	4	3	2	1
to meet new people with similar interests	5	4	3	2	1
to have peace and quiet	5	4	3	2	1
to support local	5	4	3	2	1
to experience something exciting	5	4	3	2	1
to spend time together	5	4	3	2	1
to learn about nature and increase my knowledge	5	4	3	2	1
to see maximum of Mallorca in time available	5	4	3	2	1
to visit historical attractions	5	4	3	2	1
to get to know local agriculture and its products	5	4	3	2	1
to relieve stress and tension	5	4	3	2	1
to challenge myself physically	5	4	3	2	1
to be in an unusual situation	5	4	3	2	1
to better understand the island's history	5	4	3	2	1
to learn to appreciate nature	5	4	3	2	1
for the experience itself	5	4	3	2	1
to be close to nature	5	4	3	2	1

5. How satisfied are you with the following park offers? Please circle only one number per item. (5 = completely satisfied, 4 = satisfied, 3 = undecided, 2 = not too satisfied, 1 = dissatisfied)

number of hiking trails (4)	5	4	3	2	1
signposting	5	4	3	2	1
number of bird hides (8)	5	4	3	2	1
exhibition in information center	5	4	3	2	1
opening hours of park (9-18)	5	4	3	2	1
opening hours of center (9-16)	5	4	3	2	1

6. How satisfied are you with the overall park offer?
- Completely satisfied 5 4 3 2 1 dissatisfied
-

7. Please rate your interest for the following offers by circling only one number per item. (5 = very strong, 4 = high, 3 = average, 2 = rather low, 1 = no interest)

guided tour by foot	5	4	3	2	1
guided tour by bike	5	4	3	2	1
guided photography tour	5	4	3	2	1
workshop for plant taxonomy and identification	5	4	3	2	1
workshop for bird identification	5	4	3	2	1
workshop for local products	5	4	3	2	1
workshop for local handicraft	5	4	3	2	1
selling of local products	5	4	3	2	1
rent a bike	5	4	3	2	1
rental of binoculars	5	4	3	2	1
rental of guidebooks for plant taxonomy and identification	5	4	3	2	1
rental of guidebooks for bird identification	5	4	3	2	1
rental of audio guides	5	4	3	2	1
app for smartphone with information about park and tours	5	4	3	2	1
exhibits about the history of the park	5	4	3	2	1
interactive media offering (e.g. touch screens) about the history of the park	5	4	3	2	1
merchandise	5	4	3	2	1

8. Which other offering would be desirable for you?
9. Indicate the importance of the following items regarding the development of products and services. Please circle only one number per item. (5 = very important, 4 = important, 3 = undecided, 2 = less important, 1 = not at all important, 0 = I don't know)

unrestricted use of nature during the park visit	5	4	3	2	1	0
focus is on conservation of nature and natural resources	5	4	3	2	1	0
knowledge about nature is imparted	5	4	3	2	1	0
my participation has only the smallest possible impact on nature	5	4	3	2	1	0
environmental awareness of the visitors is raised	5	4	3	2	1	0
the experience itself is focused	5	4	3	2	1	0
the offer is customized to nature and its circumstances	5	4	3	2	1	0
availability of local products and services	5	4	3	2	1	0
offers can be booked through tour operators	5	4	3	2	1	0
English is the language of communication	5	4	3	2	1	0
English is the language of exhibitions at the information center	5	4	3	2	1	0
workshops + guided tours are offered by British people	5	4	3	2	1	0

workshops + guided tours are offered by locals	5	4	3	2	1	0
revenues are used for the protection and conservation of nature	5	4	3	2	1	0
number of park visitors per day is limited	5	4	3	2	1	0

10. Which is the maximum price you would be willing to pay for the following offers?

	0€	3€	5€	7€	10€	I don't know.
guided tours	1	2	3	4	5	0
workshops	1	2	3	4	5	0
rent a bike	1	2	3	4	5	0
rental of binoculars	1	2	3	4	5	0
rental of information material (guidebooks, audio guides)	1	2	3	4	5	0

11. Please indicate your gender: (1) male (2) female

12. To which age group do you belong?

- (1) 14 - 25 (2) 26 - 35 (3) 36 - 45 (4) 46 - 55
 (5) 56 - 65 (6) 66 - 75 (7) older than 75

13. Please indicate your highest level of education.

- (1) still in school education (5) degree
 (2) primary (6) post-graduate
 (3) secondary (7) professional
 (4) A-levels (8) master craftsman
 (9) without school education

14. What is your profession?

- (1) pupil/ apprentice/ student (4) retiree (7) housewife/ -man
 (2) worker (5) officer (8) unemployed
 (3) employee (6) self-employed

15. How many persons are traveling with you?

- (1) alone (3) family (__ kids) (5) partner
 (2) organized tour group (4) private tour group (__ members) (6) other

16. How many days are you staying on Mallorca?

- (1) 4-6 days (2) 7-10 days (3) 11-14 days (4) more than 14 days

17. Indicate the number of days you spend in natural areas while being on vacation?

18. How are you traveling?

- (1) package tour (2) individual trip

19. How many times have you been to Mallorca?

- (1) 1 time (2) 2-3 times (3) 4-5 times (4) 6-7 times (5) > 7 times

Thank you for your participation!
Your data will, of course, be treated strictly confidentially, and for this purpose only.

Appendix D. Survey – Nature Park Visit Llevant

Questionnaire #:

1. Is this your first visit to this park? (1) Yes (2) No
2. How did you find out about the park?
- (1) internet (2) travel agent/tour operator (3) tourist information
 (4) newspaper/magazine (5) guidebook (6) by chance
 (7) family, friends, relatives (8) recommended by accommodation host
 (9) other
3. Which mode of transport have you used to travel to the park?
- (1) rental car (2) public transport (3) motor-coach (4) motorbike/scooter
 (5) bike (6) on foot (7) other
4. Indicate the importance of the following statements for your park visit by circling one of the five numbers after each statement. (5 = very important, 4 = important, 3 = undecided, 2 = less important, 1 = not at all important)

to explore wilderness and undisturbed nature	5	4	3	2	1
be physically active	5	4	3	2	1
to observe the fauna (wildlife)	5	4	3	2	1
to have fun	5	4	3	2	1
to learn about Mallorcan culture and lifestyles	5	4	3	2	1
to have something to share with family and friends at home	5	4	3	2	1
to help conserving nature	5	4	3	2	1
to escape the stress and surroundings of everyday life	5	4	3	2	1
to observe the flora	5	4	3	2	1
to be alone	5	4	3	2	1
to see local exhibits	5	4	3	2	1
to relax and gain new energy	5	4	3	2	1
to enjoy nature	5	4	3	2	1
photography of wildlife/ landscape	5	4	3	2	1
to meet new people with similar interests	5	4	3	2	1
to have peace and quiet	5	4	3	2	1
to support local	5	4	3	2	1
to experience something exciting	5	4	3	2	1
to spend time together	5	4	3	2	1
to learn about nature and increase my knowledge	5	4	3	2	1
to see maximum of Mallorca in time available	5	4	3	2	1
to visit historical attractions	5	4	3	2	1
to get to know local agriculture and its products	5	4	3	2	1
to relieve stress and tension	5	4	3	2	1
to challenge myself physically	5	4	3	2	1
to be in an unusual situation	5	4	3	2	1
to better understand the island's history	5	4	3	2	1
to learn to appreciate nature	5	4	3	2	1
for the experience itself	5	4	3	2	1
to be close to nature	5	4	3	2	1

5. How satisfied are you with the following park offers? Please circle only one number per item. (5 = completely satisfied, 4 = satisfied, 3 = undecided, 2 = not too satisfied, 1 = dissatisfied)

number of hiking trails (13)	5	4	3	2	1
signposting	5	4	3	2	1
exhibition in information center	5	4	3	2	1
opening hours of info center	5	4	3	2	1

6. How satisfied are you with the overall park offer?

Completely satisfied 5 4 3 2 1 dissatisfied

7. Please rate your interest for the following offers by circling only one number per item. (5 = very strong, 4 = high, 3 = average, 2 = rather low, 1 = no interest)

guided tour by foot	5	4	3	2	1
guided horseback ride tour	5	4	3	2	1
guided tour by bike	5	4	3	2	1
guided photography tour	5	4	3	2	1
workshop for plant taxonomy and identification	5	4	3	2	1
workshop for bird identification	5	4	3	2	1
workshop for local products	5	4	3	2	1
workshop for local handicraft	5	4	3	2	1
farmer's market to buy local products	5	4	3	2	1
rent a bike	5	4	3	2	1
rental of Nordic walking equipment	5	4	3	2	1
rental of binoculars	5	4	3	2	1
rental of audio guides	5	4	3	2	1
visitation of country estates	5	4	3	2	1
app for smartphone with information about park and tours	5	4	3	2	1
hiking booklet (collecting stamps)	5	4	3	2	1
exhibits about the history of the park	5	4	3	2	1
interactive media offering (e.g. touch screens) about the history of the park	5	4	3	2	1
merchandise	5	4	3	2	1
camping	5	4	3	2	1

8. Which other offering would be desirable for you?

9. Indicate the importance of the following items regarding the development of products and services. Please circle only one number per item. (5 = very important, 4 = important, 3 = undecided, 2 = less important, 1 = not at all important, 0 = I don't know)

unrestricted use of nature during the park visit	5	4	3	2	1	0
focus is on conservation of nature and natural resources	5	4	3	2	1	0
knowledge about nature is imparted	5	4	3	2	1	0
my participation has only the smallest possible impact on nature	5	4	3	2	1	0
environmental awareness of the visitors is raised	5	4	3	2	1	0
the experience itself is focused	5	4	3	2	1	0
the offer is customized to nature and its circumstances	5	4	3	2	1	0
availability of local products and services	5	4	3	2	1	0
offers can be booked through tour operators	5	4	3	2	1	0
English is the language of communication	5	4	3	2	1	0
English is the language of exhibitions at the information center	5	4	3	2	1	0
workshops + guided tours are offered by British people	5	4	3	2	1	0
workshops + guided tours are offered by locals	5	4	3	2	1	0
revenues are used for the protection and conservation of nature	5	4	3	2	1	0
number of park visitors per day is limited	5	4	3	2	1	0

10. Which is the maximum price you would be willing to pay for the following offers?

	0€	3€	5€	7€	10€	I don't know.
guided tours	1	2	3	4	5	0
workshops	1	2	3	4	5	0
hiking booklet	1	2	3	4	5	0
rent a bike	1	2	3	4	5	0
rental of Nordic walking equipment	1	2	3	4	5	0
rental of binoculars	1	2	3	4	5	0
rental of information material (guidebooks, audio guides)	1	2	3	4	5	0

11. Please indicate your gender: (1) male (2) female

12. To which age group do you belong?

(1) 14 - 25 (2) 26 - 35 (3) 36 - 45 (4) 46 - 55

(5) 56 - 65 (6) 66 - 75 (7) older than 75

13. Please indicate your highest level of education.

(1) still in school education

(5) degree

(2) primary

(6) post-graduate

(3) secondary

(7) professional

(4) A-levels

(8) master craftsman

(9) without school education

14. What is your profession?

(4) pupil/ apprentice/ student

(4) retiree

(7) housewife/ -man

(5) worker

(5) officer

(8) unemployed

(6) employee

(6) self-employed

15. How many persons are traveling with you?

(1) alone

(3) family (__ kids)

(5) partner

(2) organized tour group

(4) private tour group (__ members)

(6) other

16. How many days are you staying on Mallorca?

(1) 4-6 days

(2) 7-10 days

(3) 11-14 days

(4) more than 14 days

17. Indicate the number of days you spend in natural areas while being on vacation?

18. How are you traveling?

(1) package tour (2) individual trip

19. How many times have you been to Mallorca?

(1) 1 time (2) 2-3 times (3) 4-5 times (4) 6-7 times (5) > 7 times

Thank you for your participation!
Your data will, of course, be treated strictly confidentially, and for this purpose only.

Appendix E. Initial Factors for s'Albufera

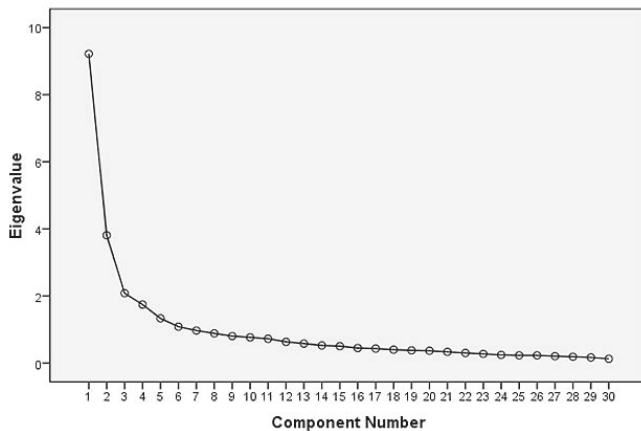
Questionnaire Items *	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
To observe the fauna (wildlife)	0.810					
To observe the flora	0.759					
To be close to nature	0.733					
To explore wilderness and undisturbed nature	0.728					
To learn about nature and increase my knowledge	0.641					
To enjoy nature	0.624					
Photography of wildlife/ landscape	0.619					
To help conserving nature	0.593					
To learn to appreciate nature	0.560					
To visit historical attractions		0.838				
To get to know local agriculture and its products		0.766				
To better understand the island's history		0.705				
To see local exhibits		0.647				
To learn about Mallorcan culture and lifestyles		0.639				
To support local farmers		0.548				
To have something to share with family and friends at home						
To relieve stress and tension			0.824			
To challenge myself physically			0.730			
To have fun			0.726			
To be physically active			0.686			
To experience something exciting			0.622			
To be in an unusual situation			0.550			
To spend time together			0.498			
To escape the stress and surroundings of everyday life				0.671		
To see maximum of Mallorca in time available				0.616		
To relax and gain new energy				0.601		
For the experience itself				0.567		
To meet new people with similar interests					0.737	
To have peace and quiet						0.803
To be alone						0.701
Number of Items	9	6	7	4	1	2
Eigenvalue	4.68	4.15	4.11	2.40	2.01	1.93
Percentage of variance explained	15.60	13.83	13.69	8.01	6.70	6.42
Cumulative variance explained	15.60	29.43	43.12	51.13	57.83	64.25
Cronbach's Alpha	0.87	0.88	0.86	0.74	NA	0.64

* Items coded on a 5-point scale from Not At All Important (1) to Very Important (5)

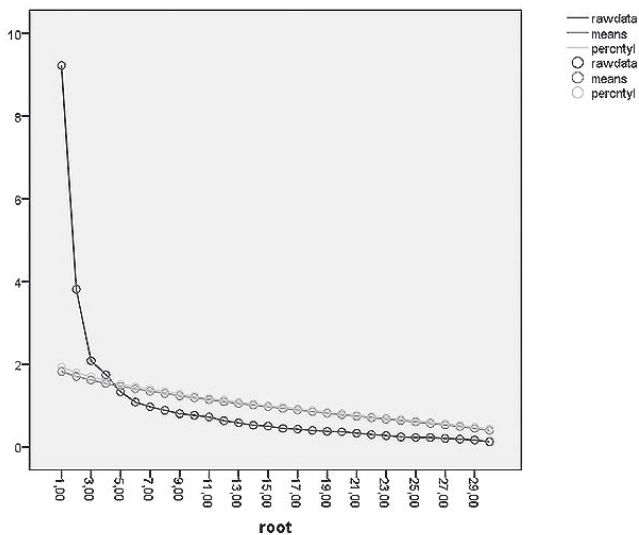
NA = Not Applicable

Appendix F. Scree Plot and Parallel Analysis for s'Albufera

Scree Plot



Parallel Analysis



Appendix G. Initial Factors for Llevant

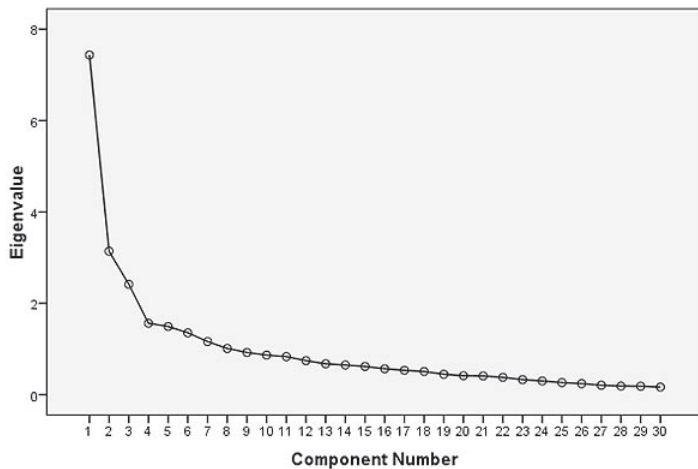
Questionnaire Items *	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
To visit historical attractions	0.790							
To get to know local agriculture and its products	0.775							
To better understand the island's history	0.752							
To see local exhibits	0.663							
To learn about Mallorcan culture and lifestyles	0.653							
To learn to appreciate nature	0.636							
To meet new people with similar interest	0.578							
To support local farmers	0.570							
To observe the fauna (wildlife)		0.806						
To explore wilderness and undisturbed nature		0.666						
To observe the flora		0.602						
To help conserving nature		0.588						
To learn about nature and increase my knowledge		0.513						
To relax and gain new energy			0.785					
To escape the stress and surroundings of everyday life			0.763					
To be close to nature			0.477					
To see maximum of Mallorca in time available			0.455					
Photography of wildlife/ landscape				0.705				
To enjoy nature				0.699				
To have peace and quiet				0.555				
To be physically active					0.776			
To challenge myself physically					0.601			
To relieve stress and tension					0.521			
To spend time together					0.499			
To have fun						0.768		
To have something to share with family & friends at home						0.617		
To experience something exciting						0.517		
To be in an unusual situation							0.836	
For the experience itself							0.628	
To be alone								0.723
Number of Items	8	5	4	3	4	3	2	1
Eigenvalue	4.71	2.92	2.44	2.06	1.98	1.96	1.94	1.56
Percentage of variance explained	15.70	9.74	8.12	6.87	6.61	6.52	6.48	5.20
Cumulative variance explained	15.70	25.44	33.56	40.43	47.04	53.56	60.04	65.24
Cronbach's Alpha	0.87	0.79	0.69	0.58	0.68	0.64	0.54	NA

* Items coded on a 5-point scale from Not At All Important (1) to Very Important (5)

NA = Not Applicable

Appendix H. Scree Plot and Parallel Analysis for Llevant

Scree Plot



Parallel Analysis

