

Repositório ISCTE-IUL

Deposited in *Repositório ISCTE-IUL*:

2020-03-20

Deposited version:

Post-print

Peer-review status of attached file:

Peer-reviewed

Citation for published item:

Oliveira, C., Brochado, A., Moro, S. & Rita, P. (2019). Consumer perception of tourist experience through online reviews. *Worldwide Hospitality and Tourism Themes*. 11 (6), 696-717

Further information on publisher's website:

10.1108/WHATT-09-2019-0052

Publisher's copyright statement:

This is the peer reviewed version of the following article: Oliveira, C., Brochado, A., Moro, S. & Rita, P. (2019). Consumer perception of tourist experience through online reviews. *Worldwide Hospitality and Tourism Themes*. 11 (6), 696-717, which has been published in final form at <https://dx.doi.org/10.1108/WHATT-09-2019-0052>. This article may be used for non-commercial purposes in accordance with the Publisher's Terms and Conditions for self-archiving.

Use policy

Creative Commons CC BY 4.0

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a link is made to the metadata record in the Repository
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Consumer Perception of Tourist Experience through Online Reviews:

The Islands of the Senses of Cape Verde

Cristina Oliveira (Instituto Universitário de Lisboa (ISCTE-IUL), ISTAR-IUL, Lisbon, Portugal)

Ana Brochado (Instituto Universitário de Lisboa (ISCTE-IUL), BRU-IUL, Lisbon, Portugal)

Sérgio Moro (Instituto Universitário de Lisboa (ISCTE-IUL), ISTAR-IUL, Lisbon, Portugal)

Paulo Rita (NOVA Information Management School (NOVA IMS), Universidade Nova de Lisboa, Lisbon, Portugal)*

*Corresponding author: prita@novaims.unl.pt

This is the author accepted manuscript version of the article published by EMERALD as:

Oliveira, C., Brochado, A., Moro, S., & Rita, P. (2019). Consumer perception of tourist experience through online reviews: The islands of the senses of Cape Verde.

Worldwide Hospitality and Tourism Themes, 11(6), 696-717.

<https://doi.org/10.1108/WHATT-09-2019-0052>



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

**Consumer Perception of Tourist Experience through Online Reviews:
The Islands of the Senses of Cape Verde**

Cristina Oliveira (Instituto Universitário de Lisboa (ISCTE-IUL), ISTAR-IUL, Lisbon, Portugal)

Ana Brochado (Instituto Universitário de Lisboa (ISCTE-IUL), BRU-IUL, Lisbon, Portugal)

Sérgio Moro (Instituto Universitário de Lisboa (ISCTE-IUL), ISTAR-IUL, Lisbon, Portugal)

Paulo Rita (NOVA Information Management School (NOVA IMS), Universidade Nova de Lisboa, Lisbon, Portugal)*

*Corresponding author: prita@novaims.unl.pt

Abstract

Overall, there is a lack of research using online reviews as a proxy of customer experience when addressing the study of tourism in island destinations. The current investigation aims to fill this gap by focusing on an African Small Island Developing State (SIDS), i.e. Cape Verde. This paper reports of tourist reviews extracted from TripAdvisor from two islands of the senses as coined by this archipelago's national tourism organization, specifically Santo Antão and Fogo islands. The data analysis was performed through Leximancer software in order to generate concepts out of words, followed by themes. Results are presented and object of discussion vis-à-vis scientific literature and conclusions put forward in this journal article.

Keywords

tourist experience; online reviews; islands of the senses; Cape Verde

1. Introduction

In consumer perception, senses involve vision, scent, sound, touch and taste (Solomon, 2017). These can foster hedonic consumption, namely in the service industries such as tourism. Senses are at the centre of how humans collect information and use it as foundation to understand meanings, generating cognitive activities like attitudes and behaviour (Krishna, 2012). In tourism, while travellers explore places, sight, hearing, smell, taste and touch are activated and articulated with their reasoning abilities and past experiences. Hence, the appeal to tourist senses by experience is expected to happen across a range of contexts and environments.

In the world of user experience there have been several studies on products with different needs. Some researchers argue that user experience should be evaluated in separate parameters (Pucillo & Cascini, 2014), others believe in the holistic user experience, yet others defend that the context and properties of the experience influence significantly the experience itself (Hassenzahl & Tractinsky, 2006). Most of these studies utilized the classic research approach, questionnaires, surveys or interviews. Yang et al (2019) used online customer's reviews to study product design as online reviews are considered as a new way of collecting customer's opinions for analysing preferences.

In tourism, customer's experience on using Airbnb was studied by Tussyadiah, (2016) where the authenticity of the relation between tourist and host was found to be a major attribute. Different attributes to stay in Airbnb and in a hotel were studied by Belarmino et al. (2019), Guttentag and Smith (2017), and Cheng and Jin (2019).

The archipelago of Cape Verde, located in the central Atlantic Ocean off the west coast of the continent of Africa, offers a number of different tourist experiences. It is part of the Macaronesia ecoregion, which includes the Azores, Madeira and Canary Islands. Cape Verde is considered by the United Nations (UN, 2011) as one of the 28 existing small islands developing states (SIDS) in the world. Four of their ten islands are specifically promoted by their National Tourism Organization (NTO) as islands of the senses as they are likely to awaken the senses of their visitors such as touch from their

several options for eco-walks as well as vision of nature and clear waters, and smell of local gastronomy/food.

Only few studies were identified on the consumer's opinion of Islands as destinations. Consequently, we propose to study a specific type of SIDS' offer, that is promoted as islands of the sense. Thus, in this study we consider the islands of the senses that are more visited and with higher number of reviews in Cape Verde Archipelago, i.e. Santo Antão and Fogo islands. This study aims to identify the main themes and concepts of the tourist experience in these islands based on user generated content (UGC), the senses perceived based on the themes and compare with what the NTO promotes.

This paper is structured as follows: it starts by performing a brief review of the literature on the topics of island tourism and social media in tourism; then, methodological issues are addressed regarding research context, data collection and content analysis; results on both Santo Antão and Fogo islands are presented and compared; finally, the empirical findings are object of discussion in light with academic literature, and conclusions given taking also into account research contributions, managerial implications, limitations of the study and future research directions.

2. Literature Review

2.1. Island Tourism

Island tourism has grown in importance due to the uniqueness of these places as destinations (Uysal & Modica, 2016). In fact, they are often seen as exclusive, charming destinations able to provide different experiences as compared to continental or mainland tourism, thus making tourism in islands quite attractive (Nunkoo & Gursoy, 2012).

In island-based tourism the natural environment has been a major attraction for recreational activities (Lee, Jan and Huang, 2015). Indeed, islands usually offer various attractions such as beautiful scenery, natural resources, water-based activities and exoticism, thus creating a wide variety of recreational experiences likely to be seen as

real attractions to visitors (Prayag and Ryan, 2012), beyond their supply of local culture and history as well as accommodation specificities.

Small islands developing states (SIDS) have largely benefit from tourism as a way of development and a driver to economic growth (Cannonier & Burke 2017; Ridderstaat et al., 2014; Schubert et al. , 2011). However, the increase of tourism is related with the level of the infrastructures and educational attributes of the destination (Eugenio-Martin et al. 2004).

According to the World Travel and Tourism Council (WTTC, 2015), from the SIDS around the world, the ones located in the Caribbean are developing states that have the perfect ingredients for growth as they employ a large number of locals and have the biggest investment capital for continuing development.

However, in a recent study Lau et al (2019) identified Chinese tourists' travel motivations to the Pacific SIDS, as they are receiving international investment from China and becoming a very strong destination choice for the Chinese tourist market. In this study they found that with the increase of internet coverage across China the majority of the Chinese tourists used blogs and social media platforms such as Trip Advisor as their main source of information before making decision and that their main motivations were related with enjoying family, exploring and interacting with different cultures, and they also enjoyed the exotic destination with low tourist density for true relaxation.

Another recent study on motivation for visiting SIDS of the pacific region discuss the connection between doing tourism to visit family and friends and migration as a way of generating tourism demand (Takahashi, 2019). Nevertheless, there is a need to study consumer perception of tourist experience regarding African SIDS.

2.2. Social Media in Tourism

Social media constitute a substantial part of search engine results, hence directing travellers to social media sites (Xiang & Gretzel, 2010). Distribution channels in tourism have been subjected to significant changes during the current decade. Actually,

whereas we have witnessed the increasing disappearance of traditional travel agents, new forms of online communication and distribution have surged with emphasis to social media and in particular online review sites playing a cornerstone role for tourism destinations (Dieck, Fountoulaki and Jung, 2018). However, consumer studies have focused more on the use and impact of social media at the information search phase of the tourist 's planning process (Leung et al., 2013).

The importance of online review platforms such as TripAdvisor for e-WOM and customer's feedback in tourism is discussed by Miguéns, Baggio & Costa (2008), while other authors defend that extracting decision-relevant knowledge from UGC (Munar & Jacobsen, 2014; Moro et al., 2018) is paramount, in particular to leverage the need to classify tourist reviews based on sentiment analysis (Park & Allen, 2013; Calheiros et al., 2017; Nave, Rita & Guerreiro, 2018; Guerreiro & Rita, 2019).

E-WOM and online reviews/recommendations are increasingly used in tourism services (Sotiriadis & Van Zyl, 2013; Moro, Rita & Coelho, 2017; Brochado et al., 2019; Brochado, Rita & Moro, 2019; Moro et al., 2019). Online reputation particularly applied to tourism destinations can be assessed by analysing UGC whereby individuals publish online their opinions which can be seen as proxies of reputation (Marchiori & Cantoni, 2011). Zhang et al. (2010) discussed that consumer-generated ratings rather than editor reviews show a positive relation to consumer intention to visit a restaurant's webpage. In the study of Sparks, Perkins & Buckley (2013), tourists considered information posted by customers as most useful and trustworthy.

For Ayeh, Au & Law (2013), social media plays a pivotal role in online travel information search since online travel reviews and comments written by users have a positive impact on tourist's decision making. Other author confirm the above by defending that e-WOM and user generated content in tourism have shown many benefits whether in terms of decision making and increase of purchase or in terms of evaluation of experienced services to benefit NTO's and private companies with knowledge for decision making (Ye et al., 2011; Mariani et al., 2014; Baka, 2016; Moro et al., 2018). Ayeh, Au & Law (2013) also argue that attitude toward using UGC has the strongest impact on behaviour intention, thus constituting a strong predictor of the tourist intention to purchase.

Only few studies have recently focused on social media in island destinations such as Munar & Jacobsen (2013) who explored Scandinavian tourists' perceptions of online information sources and assessed influence of electronic social media on holidaymakers' information sharing in Mallorca, Munar & Jacobsen (2014) who this time investigated the motivations for sharing tourism experiences via social media of visitors to Mallorca, Királ'ováa & Pavlíčka (2014) who studied the development of a social media campaign in the Hamilton Island (Australia) aimed at creating a buzz around the island by mass meeting between Instagram users from across the globe on the island. There is still a research gap in the study of customer feedback via online reviews in islands as tourist destinations, and also in particular with regard to African islands.

3. Method

3.1. Research Context

The national tourist office of Cabo Verde has referred that their archipelago includes a group of islands of the senses (www.guiadecaboverde.cv) claiming that to have intimate contact with nature, unique and true experiences with the people and culture of Cape Verde can be accomplished by visiting their four islands of senses, namely Fogo, Brava, Santo Antão and São Nicolau. Indeed, these islands are suited to those pursuing sensory experiences, practicing nature or ecotourism, climbing the mountains of Santo Antão with the “Cova” in the depth, view the famous volcano of Fogo, walk through the Natural Park of Monte Gordo, under an endless green blanket in São Nicolau, or contemplate the stunning landscape of Fajã d'Água on the island of the flowers (Brava).

Since two (São Nicolau and Brava) of the so-called islands of the senses do not show significant number of activities/units and online reviews, this study focused on the other two (Santo Antão and Fogo) that show both relevant tourism supply and number of reviews (Table 1).

Table 1. Number of Activities and Reviews per Island of the Senses (CaboVerde)

Island	Things to Do
Santo Antão	10 (413 reviews)
Fogo	5 (222 reviews)
São Nicolau	6 (16 reviews)
Brava	NA

Source: TripAdvisor

INECV (2018) published the main markets for both of the most visited islands of the senses, Santo Antão and Fogo, these being France, UK, Germany and Portugal, with the fifth being Netherlands in Santo Antão and Russia in Fogo. Most tourists travel as couples or with friends.

3.2. Data Collection

The use of traditional marketing research methods (e.g., surveys) to study tourist experience has been recognized to have limitations, such as high fieldwork costs, poor response rates and self-report bias (Zhang & Cole, 2016). Due to the widespread use of Web 2.0 websites, namely online review platforms, visitors can now rely on those reviews written by other tourists who have decided to leave their feedback and thus assisting in consumer decision making, since reviews are usually written by tourists with no commercial interests, being considered trustworthy and genuine (Au, Buhalis & Law, 2014).

The present study is based on the collection of online reviews from TripAdvisor.com, the World's Largest Travel Site, accounting with over 385 million traveler reviews, and which company, TripAdvisor Inc., is valued almost 5.5 billion US dollars in market capitalization (Bloomberg, 2018). Data was manually collected regarding tourist attractions (type, name), reviews (title, content), and reviewers (nationality, tourist type).

Specifically, a total of 472 web reviews were collected from tourist attractions of the islands of Santo Antão (286 reviews) and Fogo (186) which are considered islands of the senses in the archipelago of Cape Verde.

French tourists lead the origin generating markets to both Santo Antão and Fogo islands (Table 2), followed by English, German, and Portuguese visitors. Whereas Deutch were the fifth group by nationality visiting Santo Antão, Russians were the fifth with regard to Fogo island. Couples dominated the type of tourists visiting both islands, followed by friends. In Santo Antão, families were ahead of singles, but the opposite happened in Fogo. Visitors travelling for business were last in both islands.

Table 2. Top Generating Markets for Santo Antão and Fogo Islands

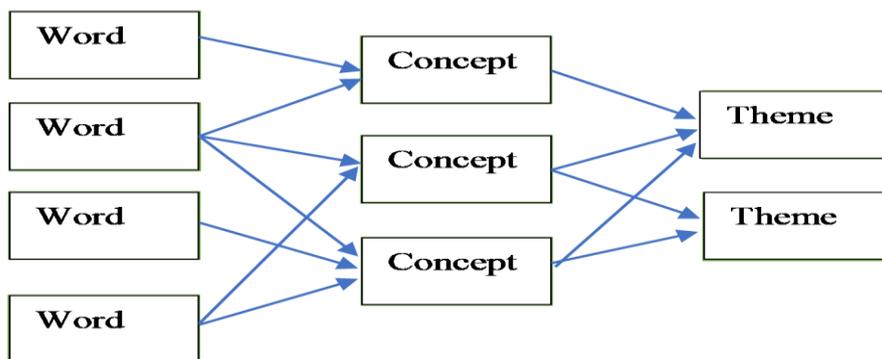
SANTO ANTÃO			FOGO		
Nationality	Frequency	Percentage	Nationality	Frequency	Percentage
French	113	39.5%	French	74	39.8%
English	74	25.9%	English	49	26.3%
German	40	14.0%	German	28	15.1%
Portuguese	24	8.4%	Portuguese	16	8.6%
Deutch	22	7.7%	Russian	7	3.8%
Others	13	4.5%	Others	12	6.5%
	286	100.0%		186	100.0%
Tourist Type	Frequency	Percentage	Tourist Type	Frequency	Percentage
Couples	162	56.6%	Couples	99	53.2%
Friends	68	23.8%	Friends	41	22.0%
Families	29	10.1%	Single	27	14.5%
Single	22	7.7%	Families	15	8.1%
Business	5	1.7%	Business	4	2.2%
	286	100.0%		186	100.0%

Source: TripAdvisor

3.3. Content Analysis

For content analysis, the Leximancer software was used since it can analyze fragmented pieces of evidence from text by applying algorithms that use nonlinear Dynamics and machine learning (Wu, Wall & Pearce, 2014). Words, concepts and themes constitute the most important units in Leximancer’s semantic pattern extraction process (Figure 1). Words appearing most frequently in text are identified first and then clustered in order to discover concepts. In turn, these are clustered into higher-level themes that aid interpretation and are shown as colored circles on a concept map whereby the ‘hottest’ theme is represented in red followed by orange and so on according to the color wheel.

Figure 1. Semantic Pattern Extraction in Leximancer



Source: Crofts & Bisman (2010)

Leximancer has been recently used by some research studies within the realm of tourism to address tourist experience in shared economy (Brochado et al., 2017), analyse online review comments of Airbnb users (Cheng & Jun, 2018), customer experience in surf camps (Brochado et al., 2018), experience of visitors to Transylvania (Lupu et al., 2017), and to study medical tourism (Rodrigues et al., 2017).

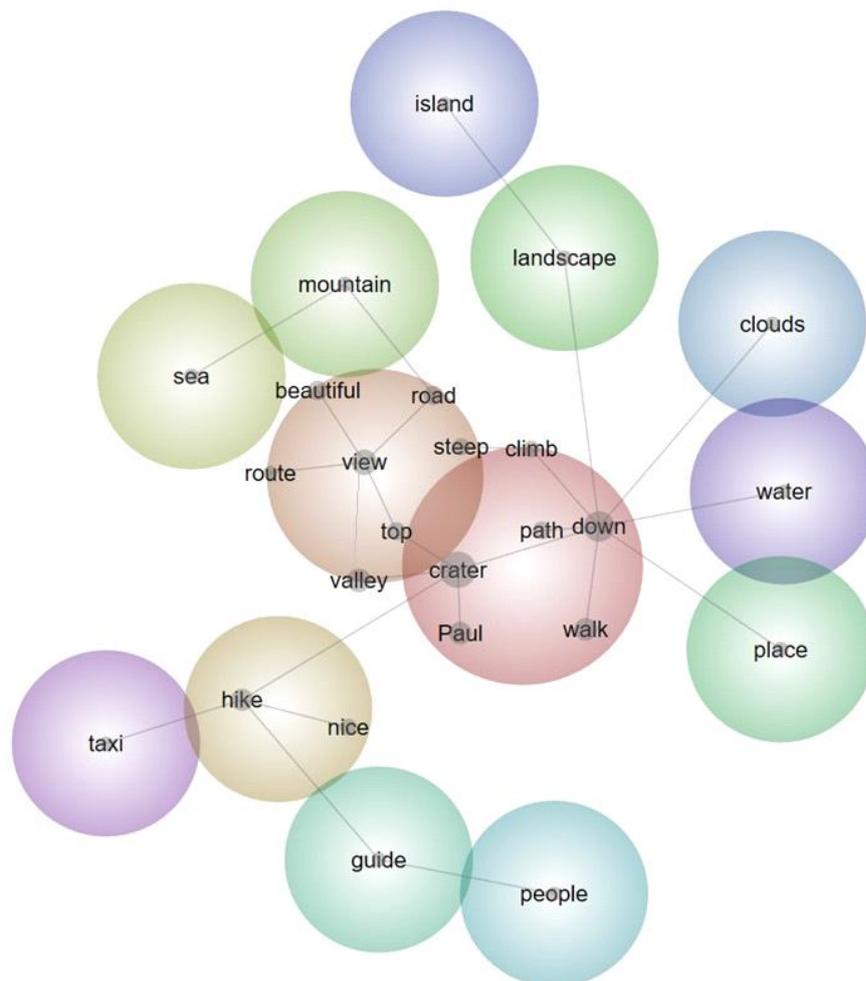
4. Results

Next, the customer experiences shared by tourists after visiting a Santo Antão and Fogo islands as destinations are presented

4.1. Santo Antão Island

A concept map was generated in order to exhibit the most common themes and concepts generated from the online reviews in the sample. The concepts are represented by nodes and grouped into themes represented by larger shaded circles. Thirteen themes were identified and ranked according to their level of importance (see Figure 2): crater, view, hike, place, landscape, island, sea, clouds, people, guide, taxi, mountain, water.

Figure 2. Concept Map – Tourist experiences in Santo Antão island



4.1.1. Crater

The crater theme (hits: 150) includes the concepts “crater”, “down”, “Paul”, “walk”, “path” and “climb”, being the most prominent theme. The Cova is a mountain, a caldera and an extinct volcano located in the island of Santo Antão, Cabo Verde. It has 1,176 meters of altitude; the length of the crater is 1.2 km north to south and almost 1.1 km wide. It constitutes an excellent natural tourist attraction for walking activities.

A visitor wrote, “Walk crater to St Paul. Beautiful walk over in the beginning steep path down” (Deutsch; travelling as a couple).

Another tourist referred, “An unforgettable descent Our companion dropped us at the bottom of the crater of Cova and we went back down the Paul valley by the path hanging on the cliff. Turned back when the path into Paul was just a foot-breadth wide, walked back through the crater, then down the road to Corda, which was beautiful (pines, wild flowers, great views), encountered a few families; a little girl brought us a little flower bouquet she'd picked; the woman I was with had had the presence of mind to bring a nice little ring to give her. It is possible for you to do as we did, namely the climb, the crater tour and the descent with another path (less marked) or to arrive to the crater and descend to the valley of Paul. In short there is something for everyone! We go down to the bottom of the crater (almost perfect crater) which is cultivated then we go back up. For the downhill part it is a small paved road that serves the few houses, the climb is a path.” (French; travelling as a couple).

4.1.2. View

The view theme (hits: 105) encompasses the concepts “view”, “valley”, “beautiful”, “road”, “top”, “steep” and “route”. Beautiful views can be experienced at the top of the mountain overlooking both the valley and the coast of the island.

A tourist wrote, “it's steep but it's worth it ... and more, if you push to the Pic Da Cruz offering beautiful views between the valley of Pául, on one side and the coast with Porto Novo on the other, magnificent” (French; travelling as a couple).

Another visitor stated, “Excellent view on a crater that is no longer active except for the local agricultural village.” (Belgian; travelling as a couple).

Other tourist referred, “Strenuous day's walk with wonderful views. For Ascension (the path that comes out of the "standard route" at the top of the road to Pico da Cruz), hike to & in the crater and then descent takes about 6 hours, but the views are fantastic! Leaving Manuel Do Santos, the climb took us 1:30 to arrive at the top ... there the view is beautiful, both on the crater but also on the entire valley Paul! The views of Paul Valley from the top are wonderful. When we went there the road had some poorly maintained areas but otherwise it is phenomenal. It is quite a long drive up by road, but the road is quite good, and the views at the top make it worthwhile. You can park near the top and it is a relatively short walk to the viewpoint (a rise of about 400 feet in ascent).” (German; travelling as a couple).

4.1.3.Hike

The hike theme (hits: 55) has the concepts “hike” and “nice”. Hiking is the recommended activity to tourists in order to achieve scenic views.

A tourist mentioned, “Very nice hike through fields and past a farm to get into the Paul Valley.” (German; travelling as a couple). Another visitor shared, “Very nice hike. The hike to do absolutely in Santo Antão!” (French; travelling as a couple). Other tourist referred, “Superb hike. Very nice hiking to do hiking freedom or with guide with the agency Nobai hiking trails and varied scenic. Very nice views to the sea. Good, as much as possible ankle-high hiking boots necessary.” (Belgian; travelling with family). Yet other visitor mentioned, “Beautiful crater, more information would be nice. The crater is very impressive and beautiful, even if only viewed from above (without hiking down).” (Swiss; travelling with friends).

4.1.4.Place

The place theme (hits: 14) just includes the concept “place”. The Paul valley that is part of a protected natural park of the island is by itself a place to visit by tourists.

One visitor stated, “Perfect entrance to Paul Valley. It's an incredible place!” (Spanish; travelling as a couple). Other tourist mentioned, “Fantastic place. Departure of the ride for the Ribeira de Paul.” (French; travelling as a couple). Another visitor shared, “Memorable sight. It is unlikely that you will stay there for a long time, but it is unlikely that you will easily forget this place. I shall never forget this place.” (Russian; travelling

as a couple). Yet another tourist referred, “Very interesting. Very interesting place with magnificent landscapes, interesting to verify the tenacity of the man to live in such remote places and the relative harmony with the nature that exists in this place” (Portuguese; travelling for business).

4.1.5.Landscape

The landscape theme (hits: 14) has only the concept “landscape”. It is considered by tourists as magical, wonderful, amazing.

A tourist shared, “Sumptuous landscapes with some mists to change the landscape.” (French; travelling as a couple). Other visitor mentioned, “Magical landscape. A real feeling of freedom, and at the same time the impression of being very small in the face of this impressive nature, however, take care to take a sweater, it is height, it is not always very hot, even walking.” (French; travelling as a couple). Another tourist stated, “Wonderful landscape. Equipped with good shoes, great place to make impressive hikes.” (Belgian; travelling as a couple). Yet other visitor referred, “Amazing landscape. The floor of the crater consists of many small vegetable gardens. On this route there is exuberant vegetation to be enjoyed and in the month of April blow fresh and pleasant winds. The landscape is worth the time spent on the course.” (Portuguese; travelling as a couple).

4.1.6.Island

The island theme (hits: 13) encompasses uniquely the concept “island”. Santo Antão offers tourists a contrast of features depending on which side of the island one is visiting, e.g., the dry south versus the northeast green. One visitor wrote, “The island inside looks like "Jurassic Park!". The part of the island facing the south is almost completely dry, while the northeast zone enjoys relatively regular rainfall and is fairly green. A major product of the island is "grogue", a type of brand produced locally and very popular throughout the archipelago.

Pleasant tiredness and satisfaction from conquering another island.” (Portuguese; travelling with family). Other tourist stated, “The island visit takes your breath away. Words or photos cannot express the beauty of this island. It is a must to visit this island” (English; travelling as a couple).

4.1.7.Sea

The sea theme (hits: 12) includes the concept “sea”. This island offers tourists the opportunity to climb to the mountain and enjoy the scenery from up there that includes views over the sea.

A tourist shared, “Best trekking to do in Cabo Verde. The volcanic crater of Cova is a crater of an ancient extinct volcano, situated 1,585 meters above sea level. Many mountain gardens are surviving due to Dutch developments, using drip irrigation. The sea appeared unexpectedly. If you want to go to the sea, you have to count down 5 hours.” (English; travelling as a couple).

Another visitor mentioned, “The beauty of contrasts. The visit to this attraction of Santo Antão will put you in touch with the best to appreciate in Santo Antão, the contrast between the sea and the mountain. On the other side (we came from the Paul valley) you have a beautiful view over the sea and Sao Vicente” (Brazilian; travelling for business).

4.1.8.Clouds

The clouds theme (hits: 11) has just the concept “clouds”. Due to the relatively high altitude of the mountain, tourists can experience the sensation of being over the clouds.

A visitor referred, “An hour later they emerged under the clouds and finally saw the horizon. It was there we had to get there in 3 hours. The government allocates considerable budgetary funds to support the regions in the zone of risky farming ... The main assistant of the peasants is highlands and clouds. Or you look (often through clouds of mist) from above into him. A great natural spectacle! Beautiful especially the passage above the clouds because there are many. Difficult descent 1,500 m of altitude difference! The higher we climbed, the closer the clouds became. Until they became so dense that they could hardly find a descent.” (Russian; travelling as a couple).

4.1.9.People

The people theme (hits: 11) only encompasses the concept “people”. Interestingly, locals use the inside of the caldera to explore small farms such as pasture, fruits and

vegetables, some of them not grown in lower areas of the island. A tourist stated, “For people with fear of heights, not a real winner.” (Deutsch; travelling as a couple). Other visitor mentioned, “It's fascinating to see how people live and cultivate food on the plain.” (Swiss; travelling with friends). Yet other tourist referred, “Impressive. different than most people we started our hike at sea-level and walked the Paul Valley up to Cova. Can be chilly (to cold for some people) at the start, because of the possible fog.” (Austrian; travelling as a couple).

4.1.10. Guide

The guide theme (hits: 11) only includes the concept “guide”. The importance of having a guide when visiting the island is stressed by this theme extracted from the online reviews. A visitor said “Do it anyway with a guide because it allows you to discover some secret places and some explanations on the flora.” (French; travelling as a couple). Another tourist wrote, “Recommend note 20/20 serious, adaptation to all requests (travel with guide, without guide, hiking sports or not).” “Not a single boredom on 18 days of travel while we visited several islands (*Fogo, São Vincente, Sao Antão*). For our part we took a local guide who for 25 euros per person per day provided transportation, lunch at home and hiking all day.” (French; travelling as a couple). “It is safer with a guide.”

4.1.11. Taxi

The taxi theme (hits: 10) has just the concept “taxi”. This theme emphasizes the importance of taking a taxi to get to the natural tourist attraction Cova crater.

A tourist stated, “Arrived by taxi to Cova Crater and then walked through Paul Valley with lunch in O Curral and overnight in Aldeia Manga.” (German; travelling as a couple).

Other visitor referred, “One must see or wander. Drop your luggage from the port to your accommodation and take a taxi to Cova Crater for reaching the driveway (about 3 hours).” “You can also share a taxi with another person.” “Can be chilly (to cold for some people) at the start, because of the possible fog.” “To get there you need a taxi, but can be a bit expensive, make sure you negotiate price upfront”. “Get to the taxi early in the morning”, “the ride may be complicated because they all drive by the new road on

the coast”; “ask the day before if someone takes this road to a driver”. “In the opposite direction, it will be easier because there will be those taxis that passes in the aprem (in the afternoon) according to the schedules of boats, but there will be maybe one.” (Swiss; travelling as a couple).

4.1.12.Mountain

The mountain theme (hits: 10) encompasses the concept “mountain”. Indeed, the mountain itself exerts a pull effect on tourists since that allows them to experience very appealing sightseeing experiences.

One visitor wrote, “Aborigines with the mobility and agility of mountain goats run down the slope. Where the tourist steps carefully - a step behind the step - trained legs in 20-30 seconds deliver the body down.” “Many mountain gardens are surviving due to Dutch developments, using drip irrigation. The sea appeared unexpectedly.” (Russian; travelling as a couple). Another tourist shared, “The beauty of contrasts. The visit to this attraction of Santo Antão will put you in touch with the best to appreciate in Santo Antão, the contrast between the sea and the mountain. However, it is spectacular to arrive at the top of the mountain and then suddenly, when you look down the other side, seeing a very peaceful agricultural landscape. Small fields, cows, goats.” “Even without a hike it makes sense to have a look at the crater, when driving on the mountain road from Porto Novo to Ribeira Grande. There is a viewpoint with an information board in Portuguese, French and English.” (Brazilian; travelling for business).

4.1.13.Water

The water theme (hits: 8) includes the sole concept of “water”. Due to the physical effort demanded to tourists, these are stressing the importance of bringing water throughout the hiking activities.

A very careful visitor shared, “Magnifique spectacle epoustouflant (breathtaking). Leave with good shoes and walking sticks and especially a camera a lot of water really essential.” “Carry supplies, especially water. Sun protection should also be enhanced. 12km trekking from Cova to Paul (mainly downhill), 3-4 hours long, there are some restaurants and places to buy water and food in the asphalted part”. “1300m lost in vertical along the way. Unique experience for those who enjoy medium-effort walks

(but the legs will claim the descent the other day yes ...).” “Do not forget to bring water, food, hat, sunscreen and a warm coat - the temperature can change abruptly.” “Now Cova plays the role of the nurturing mother because from there, many people from the village are supplied with water and practice farming and gardening. Anyway for the descent”. (French; travelling as a couple).

4.2. Fogo Island

Figure 3 portrays the concept map showing the most common themes and concepts generated from the online reviews. Nodes represent concepts and are grouped into themes represented by larger shaded circles. Nine themes were identified and ranked according to their level of importance: climb, village, volcano, guide, fogo, lava, trip, place, water.

through deep soft 'snow' - but warm and black” (North-American; traveling alone). Other tourist referred “It is superb! It takes breath on the climb but what experience the descent!” (French; travelling with friends).

4.2.2. Village

The village theme (hits: 170) encompasses the concepts “village”, “crater”, “eruption”, “beautiful”, and “walk”. The referred village is Chã das Caldeiras, a small community within the crater of the volcanic pico do fogo and that accounts for approximately 1 thousand inhabitants. At an elevation of about 1,700 metres, it is considered the highest village in Cabo Verde.

A visitor stated “We left our taxi at the road somewhere in the middle of the Caldeira and walked towards the well visible Pico Pequeno, which came into being with the eruption of April 1995. Just about 100m away from its crater another eruption took place in November 2014” (Swiss; travelling as a couple). Another tourist shared “Unforgettable day with walk on the lava in the crater. And always beautiful and big sun” (French; travelling alone). Yet other visitor mentioned “Arrived at Cha das Caldeiras, the breath is suspended, we have the feeling that we have reached the end of the world, reduced to our insignificance before the grandiosity of the 9 km of crater with 1 km of height of the border. And we are simply wondering how beautiful it is” (Portuguese; travelling with family).

4.2.3. Volcano

The volcano theme (hits: 150) has the concepts “volcano”, “hike”, “local”, “recommend” and “unique”. The Fogo island reaches the highest altitude of all the islands in Cabo Verde, rising to 2,829 meters above sea level at the summit of its volcano, named Pico do Fogo. Hiking is highly recommended due to the uniqueness of its experience and stunning views. A tourist said “Experience unique enchanting place, I recommend to run the hike up to the volcano as you can rely on a good guide the summit can be reached with about 4 hours of climbing quite challenging. The effort is rewarded by an enchanting spectacle that can be enjoyed from above” (Italian; travelling with friends). Another visitor wrote “The place itself is stunning, even though my original plan was to climb the Pico itself, I was not disappointed with the hike over

the new eruption, as that was something unique” (Deutch; travelling alone). Other tourist referred “Nowadays, it's possible to hike up Bordeira, the rim of the big caldera and the new eruption. Arrange with someone in Sao Felipe though, as guide is recommendable for the hike” (Deutch; travelling alone).

4.2.4. Guide

The guide theme (hits: 135) includes the concepts “guide”, “experience”, and “ascent”. In order to ascend to the top of Pico do Fogo, and absorb its enriching experience it is very important to be accompanied and oriented by a local guide.

A visitor stated “The ascent to the summit of the volcano, which for those who have not had a geologist training like me is certainly best assisted by some expert local guide, is an unforgettable experience even more than the famous night climb to Stromboli to see the explosions that they cut on the dark” (Italian; travelling as a couple).

Another tourist shared “Only in the middle of the road did we notice the colorful markings on the stones that help the guides to orient themselves in the mountain kingdom. The first half an hour is a gentle, prolonged ascent” (Russian; travelling as a couple). Yet other visitor mentioned “At the top. The ascent to the *Fogo* is only possible with a local guide” (German; travelling alone).

4.2.5. Fogo

The fogo theme (hits: 132) encompasses the concepts “fogo”, “island”, “day”, “visit”, and “Cabo Verde”. This theme emphasizes the relevance of the Fogo island within the archipelago of Cabo Verde as well as the importance of tourists to dedicate time to pay it a visit when choosing this country as a destination.

A tourist said “On our 3 week visit to 5 of the 9 islands the people on *Fogo* are possibly the most friendly ones” (Austrian; travelling as a couple). Another visitor wrote “*Fogo* is perhaps the only island of *Cabo Verde*, with *Sant'Antao*, to deserve a one-week trip (better nine days) just for her, even without touching other island destinations. Yet other tourist referred “Arriving in Cabo Verde without first trying to spend a few days in Fogo, it is like from Germany "go on holiday in Naples" and book two weeks in Scamp a, having Capri 30 km away, without going there” (Italian; travelling as a couple).

4.2.6. Lava

The lava theme (hits: 105) has the concepts “lava”, and “view”. This theme underlines the beautiful scenery that can be appreciated by tourists due to the associated lava coming from several eruptions that took place in the last few decades.

A visitor stated “The view of the Caldeira is impressive, you can see exactly the lava runs of the eruptions of the 50’s, 1995 and 2014. The view from the top is wonderful and try to go down via the "Small Pico" running into the lava stones. An unforgettable experience!” (German; travelling as a couple). Another tourist shared “The view is superbly beautiful with lava flows in the Cha, apple fields, grapes etc. The descent is very easy on the small volcano and it takes only a few tens of minutes by sliding on the gravel” (Malian; travelling alone). Other visitor mentioned “once we reached the crater the views along the valley as far as the sea were beautiful, if unearthly, as you could clearly see the variations of colour in the lava flows from different eruptions. Coming down was the complete antithesis of the ascent - quick, easy and so much fun - ash-running all the way!” (English; travelling with friends).

4.2.7. Trip

The trip theme (hits: 79) includes the concepts “trip”, “best”, “mountain”, and “volcanic”. It addresses specificities of the trip through the volcanic mountain of this island.

Tourist said “Now you can slide down the ultra-long volcanic ash with great strides down the seemingly endless mountain. Although this is also hard on, but it's fun!” “Once on the black volcanic "sand" part you can let loose and tear down the mountain at full speed. This run back down is unforgettable and so rewarding after the climb up.” “The slide down the volcanic sands was one of the highlights of our trip” (German; travelling alone). Another visitor wrote “We were staying in a hotel in Sao Filipe and were very lucky to find an excellent local guide in the evening before we made this trip. It's a long walk after a taxi trip up the mountain, so he advised us to start early (6 AM)” (English; travelling as a couple).

4.2.8. Place

The place theme (hits: 71) encompasses the concepts “place”, “worth”, and “people”. Tourists associate the uniqueness of this place by extending it to the people living there. A visitor referred “It is a mixture of feelings between the beauty of the place and the shock of seeing the tragedy so close that it happened there, but the most impressive thing is to check the resilience of the people who live there. The whole island is worth the visit, with places of very diverse beauty and very special people” (Portuguese; travelling with friends). Another tourist stated “A special place. It is actually a very special place populated by even more special people” (Portuguese; travelling with friends). Yet other visitor shared “Incredible place!!! We have visited Fogo, flew there by little plane which was scary but worth a trial!” (English; travelling as a couple).

4.2.9. Water

The water theme (hits: 15) has only the concept “water”. Due to the physical effort involved in climbing pico do fogo, tourists advert to the need of bringing plenty of water.

A tourist mentioned “Even in February, the sun is violent, and it is prudent to provide hat, sunscreen and water. Two 1.5-liter bottles of water per person for adults, one for 1.5 liters plus one for 0.5 for children between nine and 13-14 years old. Bring compass, paper and binoculars. Due to lack of water, their taste is saturated and tart” (Italian; travelling as a couple).

Finally, another visitor said “You will be covered in dust which finds its way into everything. Take plenty of water and food. If you go to Fogo it's a must but just make sure you are armed with water and a snack” (English; travelling with friends).

4.3. Comparison between Santo Antão and Fogo Islands

When comparing Santo Antão and Fogo, three of the themes are common in both islands as included in online reviews written by tourists, namely Guide, Place, and Water. This makes sense since tourists focus a lot on the place being visited, and the nature of the destination's attractions require most of the times to consider tourist guides. Interestingly, water is used with two different meanings: on the one hand, to see water surrounding the islands landscape from a top spot constitutes a thrill for a visitor;

on the other hand, bottled water consumption is recommended due to the physical efforts needed to be performed.

There are also a few themes in one island that are concepts in the other one. Specifically, six of the themes in Santo Antão, i.e. Crater, View, Hike, Island, People and Mountain, are concepts in Fogo island, being associated with other themes, respectively, Village, Lava, Volcano, Fogo, Place and Trip. These relationships can be well understood if one looks at the relevance given to both islands in terms of their volcanos, craters and lava, the locals (people) living in small villages by those places, as well as the trips and hiking activities that are taken to climb the associated mountains in order to enjoy their magnificent views.

Although Fogo island had half the alternatives of things to do and close to half of the reviews of Santo Antão it was interesting to note that qualifiers related with the visit to the islands were stronger for Fogo Island – unique, worth, beautiful, best, breath away, recommend - than for Santo Antão with the only strong qualifier referred to beautiful.

In terms of senses the one that was referred most related to view and taste of the local water for both islands. Touch was referred in Fogo island referring the soft lava sand.

Finally, both islands share some similar concepts such as down, walk, beautiful. However, depending on the island being addressed those concepts are associated with different themes. Whereas down and walk are part of the Crater theme and beautiful of the View one in Santo Antão, down is included in Climb, and walk and beautiful are part of the Village theme of Fogo island. These connections are understandable since the activity of walking down and up (climb) the craters constitute an important motivation for tourists as well as to enjoy the beautiful views and the experience of visiting the villages by the volcanos.

5. Discussion and Conclusion

The present research focused on experiences in island tourism in order to identify their main dimensions based on visitors' narratives in online reviews. The obtained results

intend to add potential value to the literature by contributing to a better understanding of tourist experience in the context of tourism in islands in an understudied country, Cape Verde.

Zhang & Cole, (2016) underlined the usefulness of performing text analyses of online reviews as an alternative to traditional survey methods by giving significant insights into tourist experiences when travelling in islands and thus facilitating the identification of the most significant dimensions of those experiences.

The present content analysis of online reviews revealed the existence of 13 themes in Santo Antão island. The two most frequently mentioned in online reviews were clearly crater and view, followed by hike. Next came place, landscape, island, and sea. Finally, clouds, people, guide, taxi, mountain, and water were also worth mentioning. Next, we discuss our findings in light of academic literature with regard to the seven more relevant themes found in our results.

Volcanoes and tourists are like magnets, likely to attract each other. Some tourists when nearing a volcano are drawn ever more strongly to its summit or crater (Newhall, 2014). The study of craters as tourist attractions is an emerging theme in the scientific literature. Putri, Soemarno & Hakim (2015) have recently addressed the strategic management of nature based tourism in Ijen crater, East Java, Indonesia and identified three competitive tourism aspects, namely something to see (mountain landscape), something to do (trekking, hiking, bird watching), and something to buy (meals). This same crater has also been the focus of research by Zen & Wulandari (2016) who obtained data through interviews, observation, and documentation.

The theme view is associated with the concept valley that has been also a major driver of previous studies. In fact, Fakeye & Crompton (1991) had already studied both first-time and repeat long-stay winter visitors to the lower Rio Grande Valley in Texas in order to assess destination image conceptualized as evolving from an organic image, through an induced image, to a complex image. Later, Ritchie (1999) addressed policies to ensure long-term protection and development of national parks in the Canadian Rockies by studying a complex set of integrated research efforts within the Banff-Bow valley.

The hike theme has been discussed in terms of its relevance and potentialities as a tourist activity by Kastenholz & Rodrigues (2007) who identified three groups of hikers and distinguished them by the amount of money spent per day during their visit on the walking path. Moreover, Mehmetoglu (2007) developed a typology of nature tourists based on trip activities leading to the identification of three clusters: “culture and pleasure activity oriented”, “nature activity oriented”, and “low activity oriented”.

The importance of the theme place for tourism has been the focal point for a diverse range of studies. Sims (2009) recorded ways in which local foods were conceptualized as “authentic” products that symbolized the place and culture of the destination. Trauer & Ryan (2005) suggested that in the scientific literature about place location may be secondary since the quality of experience is primarily determined by the existing intimacies between people at that place, specially between visitors.

The interesting landscape theme was focused by Steen (2007) in a review of photo-based landscape perception research approaches that could be used for assessment of tourists' visual landscape perceptions. Later, Sun, Zhang & Ryan (2015) reported findings derived from responses made to a process of showing photographs of South Island, New Zealand to Chinese tourists, and posing a series of options asking which were preferred and why. Images triggering strong favorable responses were those that showed snow covered mountains reflected in lake waters.

Island as destinations have been studied from multiple perspectives, including sustainability such as by Wall (1993) who described the Bali Sustainable Development Project and the procedures, definitions and criteria employed in the formulation of a sustainable development strategy for Bali as well as by Sharpley (2002) who explored the extent to which the diversification role for rural tourism represented a realistic tourism development policy.

The importance of the theme sea in a tourist destination has received attention by many researchers such as Koutra & Karyopouli (2013) indicating that the sun and sea image prevails and determines visitations to the island of Cyprus, dissuading tourists from seeing it as a year-round destination. Further, Triantafillidou & Petala (2016) found that

the experiential dimensions of hedonism, escapism, and socialization were positive antecedents of tourists' satisfaction and behavioural intentions of sea adventure tourists.

The analysis of the content of online reviews regarding Fogo island revealed 9 themes. The most mentioned were clearly climb, village, and volcano. These were followed by guide, Fogo, and lava. Finally, came trip, place, and water. These findings are discussed next, contextualizing them within previous studies.

Tourism in SIDS is recognized in terms of dependency. Sharpley & Ussi (2014) paid attention to the role of the state in small island developing states and argued for the critical importance of supporting tourism as an agent of development. Due to geographical limitations of islands, this approach should be coupled with the need for sustainability of island destinations which led Rodriguez et al. (2008) to apply the tourism area life cycle model to Tenerife and integrating also strategic aspects. Sustainable tourism development in small islands is actually seen by Twining-Ward & Butler (2002) as a real need, thus leading them to develop such indicators to Samoa.

As a consequence of particular challenges posed by communities living in mountainous islands, Mitchell & Reid (2001) investigated tourism planning and management in the Andean community of Taquile island in Peru proposing a Framework of resident integration in tourism. Sinha & Bushell (2002) argued for the need to understand the relationship between biodiversity and tourism in small islands to promote biodiversity conservation and ecotourism, since villagers and the tourism activity depend on the same ecological resources. They found in a coastal village in Fiji that by fostering the connection of local people with the land that is manifested in the daily lives of the villagers the interaction between these and tourists could be enhanced.

Hampton (1998) studied Gili Trawangan island in Lombok, Indonesia and defended that encouraging backpacker tourism might alleviate some of the excesses of international mass tourism. McElroy & De Albuquerque (1998) went on to construct a composite tourism penetration index involving per capita visitor spending, daily visitor densities per 1,000 population and hotel rooms per square kilometre and illustrated the behaviour of small islands at different levels of penetration in the Caribbean.

Fogo island has the only active volcano in the archipelago of Cabo Verde. As a consequence of that activity there is a conical aspect of the island, a caldera on its top and a main volcanic cone rising up the caldera floor (Costa, 2011). Cheng & Lu (2013) studied the experience of tourists when visiting Lyudao island in China, and found that destination image generates greater perception of novelty, promotes hedonics and perceived value, and leads to tourist behavioural intention to revisit the island.

The relevance of place in island tourism is recognized by several authors in previous studies. Cheng, Wu & Huang (2013) examined the impact of place attachment on the relationship between destination attractiveness and environmentally responsible behaviour in the island of Penghu, Taiwan, which was indeed found to influence significantly that relationship as well as being positively associated with attractiveness of island tourism. Later, Cheng & Wu (2015) proposed an integrated approach for sustainable island tourism involving not only the influence of place attachment on environmentally responsible behaviour but also how this is affected by both environmental knowledge and sensitivity. The importance of place image had also been addressed before by Selby and Morgan (1996) when they studied Barry island in Wales.

Water can be seen as a major asset for islands as tourist destinations since it surrounds them and, in many cases, contributes to beautiful panoramic views of the island landscape. However, due to the more fragile nature of islands as opposed to most mainland territories, water supply problems are likely to occur, and also as a consequence of tourism activity pressures on the environment. The need of bringing drinking bottled water in their hiking is referred in the themes identified in this study. Such concerns led Essex, Kent and Newnham (2004) to investigate water supply issues in the island of Mallorca as an example that illustrates other Mediterranean islands as well as small islands located in other regions.

Both islands present tourists' experiences references to natural features and related experiences, enriched by local's interaction. In Fogo island references are connected mostly to the volcanoes and its unique characteristics. Although both are islands, the sea is not truly mentioned in the Fogo island, while in Santo Antão it appears in the comments related with the view.

The NTO promotes the islands as islands of the senses, and even though it is not the main focus of the comments, it is possible to identify some senses-related aspects such as view and taste of the island water for both islands and touch for Fogo islands.

There are potential activities themes that are promoted by the NTO that are not referred by tourists such as fauna aspects (e.g., bird watching); in terms of flora, this is not generally mentioned in a strong way; cultural experiences with dance and music “funaná”, “batuque” and “morna” are not mentioned specifically and sounds are mentioned with negative comments – “loud sounds”; beach or sea activities such as canoeing, snorkelling and fishing are activities that do not sound to have a big impact.

Despite this study’s useful findings, this has some limitations that ought to be made explicit. Only reviews of two islands were examined and no consistent data was available in relation with reviewers’ profiles. Future research should include other islands from the archipelago of Cape Verde, such as the island of São Vicente that is related with sound, i.e. music (“morna”), local festivities and bars. Moreover, the dimensions of tourist experience identified in this study could be linked in the future with reviewers’ demographic and psychographic profiles.

Finally, the increasing number of online reviews on both the islands of Santo Antão and Fogo as well as their content allows to conclude on the importance of promoting these two as islands of the senses as tourist destinations using the most realistic words matching supply (NTO information) and demand (online reviews).

References

- Au, N., Buhalis, D., & Law, R. (2014). Online complaining behavior in Mainland China hotels: the perception of Chinese and non-Chinese customers. *International Journal of Hospitality & Tourism Administration*, 15(3), 248-274.
- Ayeh, J. K., Au, N., & Law, R. (2013). “Do we believe in TripAdvisor?” Examining credibility perceptions and online travelers’ attitude toward using user-generated content. *Journal of Travel Research*, 52(4) 437–452.
- Baka, V. (2016). The becoming of user-generated reviews: Looking at the past to understand the future of managing reputation in the travel sector. *Tourism Management*, 53, 148-162.
- Belarmino, A., Whalen, E., Koh, Y., & Bowen, J. T. (2019). Comparing guests’ key attributes of peer-to-peer accommodations and hotels: mixed-methods approach. *Current Issues in Tourism*, 22(1), 1-7.
- Bloomberg (2018) Bloomberg.com (accessed May 6, 2018).
- Brochado, A., Rita, P., & Moro, S. (2019). Discovering Patterns in Online Reviews of Beijing and Lisbon Hostels. *Journal of China Tourism Research*, 15(2), 172-191.
- Brochado, A., Rita, P., Oliveira, C., & Oliveira, F. (2019). Airline passengers’ perceptions of service quality: themes in online reviews. *International Journal of Contemporary Hospitality Management*, 31(2), 855-873.
- Brochado, A., Stoleriu, O., & Lupu, C. (2018). Surf camp experiences. *Journal of Sport & Tourism*, 22(1), 21-41.
- Brochado, A., Troilo, M., & Shah, A. (2017). Airbnb customer experience: Evidence of convergence across three countries. *Annals of Tourism Research*, 63, 210-212.

Calheiros, A. C., Moro, S., & Rita, P. (2017). Sentiment classification of consumer-generated online reviews using topic modeling. *Journal of Hospitality Marketing & Management*, 26(7), 675-693.

Cannonier, C., & Burke, M. G. (2017). Tourism and financial development in small states: Evidence from Caribbean countries. *Tourism Economics*, 23(6), 1369-1377.

Cheng, M., & Jin, X. (2019). What do Airbnb users care about? An analysis of online review comments. *International Journal of Hospitality Management*, 76, 58-70.

Cheng, T. M., & Lu, C. C. (2013). Destination image, novelty, hedonics, perceived value, and revisiting behavioral intention for island tourism. *Asia Pacific Journal of Tourism Research*, 18(7), 766-783.

Cheng, T. M., & Wu, H. C. (2015). How do environmental knowledge, environmental sensitivity, and place attachment affect environmentally responsible behavior? An integrated approach for sustainable island tourism. *Journal of Sustainable Tourism*, 23(4), 557-576.

Cheng, T. M., C. Wu, H., & Huang, L. M. (2013). The influence of place attachment on the relationship between destination attractiveness and environmentally responsible behavior for island tourism in Penghu, Taiwan. *Journal of Sustainable Tourism*, 21(8), 1166-1187.

Costa, F. L. (2011). Volcanic geomorphosites assessment of the last eruption, on April to May 1995, within the natural park of Fogo Island, Cape Verde. *Geojournal of tourism and geosites*, 8(2), 167-177.

Crofts, K., & Bisman, J. (2010). Interrogating accountability: An illustration of the use of Leximancer software for qualitative data analysis. *Qualitative Research in Accounting & Management*, 7(2), 180-207.

Essex, S., Kent, M., & Newnham, R. (2004). Tourism development in Mallorca: is water supply a constraint? *Journal of sustainable tourism*, 12(1), 4-28.

Eugenio-Martín, J. L., Morales, N. M., & Scarpa, R. (2004). *Tourism and Economic Growth in Latin American Countries: A Panel Data Approach* (No. 2004.26).

Fakeye, P. C., & Crompton, J. L. (1991). Image differences between prospective, first-time, and repeat visitors to the Lower Rio Grande Valley. *Journal of travel research*, 30(2), 10-16.

Guerreiro, J., & Rita, P. (2019). How to predict explicit recommendations in online reviews using text mining and sentiment analysis. *Journal of Hospitality and Tourism Management* (forthcoming).

Guttentag, D. A., & Smith, S. L. (2017). Assessing Airbnb as a disruptive innovation relative to hotels: Substitution and comparative performance expectations. *International Journal of Hospitality Management*, 64, 1-10.

Hampton, M. P. (1998). Backpacker tourism and economic development. *Annals of tourism research*, 25(3), 639-660.

Hassenzahl, M., & Tractinsky, N. (2006). User experience—a research agenda. *Behaviour & information technology*, 25(2), 91-97.

INECV (2018) Instituto Nacional de Estatística, Cabo Verde.

Kastenholz, E., & Rodrigues, Á. (2007). Discussing the potential benefits of hiking tourism in Portugal. *Anatolia*, 18(1), 5-21.

Kiráľová, A., & Pavlíčka, A. (2014). Development of social media strategies in tourism destination. *Procedia-Social and Behavioral Sciences*, 175, 358-366.

Koutra, C., & Karyopouli, S. (2013). Cyprus' image—a sun and sea destination—as a detrimental factor to seasonal fluctuations. Exploration into motivational factors for holidaying in Cyprus. *Journal of Travel & Tourism Marketing*, 30(7), 700-714.

- Krishna, A. (2012). An integrative review of sensory marketing: Engaging the senses to affect perception, judgment and behavior. *Journal of Consumer Psychology*, 22(3), 332-351.
- Lau, C. K., Fan, D. X., Milne, S., Qiu, H., & Sun, M. (2019). Chinese venturers to Pacific Small Island Developing States: Travel and lifestyle. *International Journal of Tourism Research*.
- Lee, T. H., Jan, F. H., & Huang, G. W. (2015). The influence of recreation experiences on environmentally responsible behavior: The case of Liuqiu Island, Taiwan. *Journal of Sustainable Tourism*, 23(6), 947–967.
- Leung, D., Law, R., Van Hoof, H., & Buhalis, D. (2013). Social media in tourism and hospitality: A literature review. *Journal of Travel & Tourism Marketing*, 30(1-2), 3-22.
- Lupu, C., Brochado, A., & Stoleriu, O. M. (2017). Experiencing Dracula's homeland. *Tourism Geographies*, 19(5), 756-779.
- Marchiori, E., & Cantoni, L. (2011). The online reputation construct: Does it matter for the tourism domain? A literature review on destinations' online reputation. *Information Technology & Tourism*, 13(3), 139-159.
- Mariani, M. M., Buhalis, D., Longhi, C., & Vitouladiti, O. (2014). Managing change in tourism destinations: Key issues and current trends. *Journal of Destination Marketing & Management*, 2(4), 269-272.
- McElroy, J. L., & De Albuquerque, K. (1998). Tourism penetration index in small Caribbean islands. *Annals of Tourism Research*, 25(1), 145-168.
- Mehmetoglu, M. (2007). Typologising nature-based tourists by activity—Theoretical and practical implications. *Tourism management*, 28(3), 651-660.
- Miguéns, J., Baggio, R., & Costa, C. (2008). Social media and tourism destinations: TripAdvisor case study. *Advances in tourism research*, 26(28), 1-6.

Mitchell, R. E., & Reid, D. G. (2001). Community integration: Island tourism in Peru. *Annals of tourism research*, 28(1), 113-139.

Moro, S., Rita, P., & Coelho, J. (2017). Stripping customers' feedback on hotels through data mining: The case of Las Vegas Strip. *Tourism management perspectives*, 23, 41-52.

Moro, S., Batista, F., Rita, P., Oliveira, C., & Ribeiro, R. (2019). Are the States United? An analysis of US hotels' offers through TripAdvisor's eyes. *Journal of Hospitality & Tourism Research*. (forthcoming).

Moro, S., Rita, P., & Oliveira, C. (2018). Factors influencing hotels' online prices. *Journal of Hospitality Marketing & Management*, 27(4), 443-464.

Munar, A. M., & Jacobsen, J. K. S. (2013). Trust and involvement in tourism social media and web-based travel information sources. *Scandinavian Journal of Hospitality and Tourism*, 13(1), 1-19.

Munar, A. M., & Jacobsen, J. K. S. (2014). Motivations for sharing tourism experiences through social media. *Tourism management*, 43, 46-54.

Nave, M., Rita, P., & Guerreiro, J. (2018). A decision support system framework to track consumer sentiments in social media. *Journal of Hospitality Marketing & Management*, 27(6), 693-710.

Newhall, C. (2014). A Dilemma for Tourists and Land Managers Alike: What Risks to Take? In *Volcanic Tourist Destinations* (pp. 351-353). Springer, Berlin, Heidelberg.

Nunkoo, R., & Gursoy, D. (2012). Residents' support for tourism: An identity perspective. *Annals of Tourism Research*, 39(1), 243-268.

Park, S. Y., & Allen, J. P. (2013). Responding to online reviews problem solving and engagement in hotels. *Cornell Hospitality Quarterly*, 54(1), 64-73.

Prayag, G., & Ryan, C. (2012). Antecedents of tourists' loyalty to Mauritius: The role and influence of destination image, place attachment, personal involvement, and satisfaction. *Journal of Travel Research*, 51(3), 342–356.

Pucillo, F., & Cascini, G. (2014). A framework for user experience, needs and affordances. *Design Studies*, 35(2), 160-179.

Putri, S. D., Soemarno, S., & Hakim, L. (2015). Strategic Management of Nature-Based Tourism in Ijen Crater in the Context of Sustainable Tourism Development. *Journal of Indonesian Tourism and Development Studies*, 3(3), 123-129.

Ritchie, J. B. (1999). Policy formulation at the tourism/environment interface: Insights and recommendations from the Banff-Bow Valley study. *Journal of Travel Research*, 38(2), 100-110.

Ridderstaat, J., Oduber, M., Croes, R., Nijkamp, P., & Martens, P. (2014). Impacts of seasonal patterns of climate on recurrent fluctuations in tourism demand: Evidence from Aruba. *Tourism Management*, 41, 245-256.

Rodrigues, H., Brochado, A., Troilo, M., & Mohsin, A. (2017). Mirror, mirror on the wall, who's the fairest of them all? A critical content analysis on medical tourism. *Tourism Management Perspectives*, 24, 16-25.

Rodríguez, J. R. O., Parra-López, E., & Yanes-Estévez, V. (2008). The sustainability of island destinations: Tourism area life cycle and teleological perspectives. The case of Tenerife. *Tourism Management*, 29(1), 53-65.

Schubert, S. F., Brida, J. G., & Risso, W. A. (2011). The impacts of international tourism demand on economic growth of small economies dependent on tourism. *Tourism Management*, 32(2), 377-385.

Selby, M., & Morgan, N. J. (1996). Reconstructing place image: A case study of its role in destination market research. *Tourism Management*, 17(4), 287-294.

Sharpley, R. (2002). Rural tourism and the challenge of tourism diversification: the case of Cyprus. *Tourism management*, 23(3), 233-244.

Sharpley, R., & Ussi, M. (2014). Tourism and governance in small island developing states (SIDS): the case of Zanzibar. *International Journal of Tourism Research*, 16(1), 87-96.

Sims, R. (2009). Food, place and authenticity: local food and the sustainable tourism experience. *Journal of sustainable tourism*, 17(3), 321-336.

Sinha, C. C., & Bushell, R. (2002). Understanding the linkage between biodiversity and tourism: a study of ecotourism in a coastal village in Fiji. *Pacific Tourism Review*, 6(1), 35-50.

Solomon, M. (2017) *Consumer Behavior: Buying, Having, and Being* (12th Edition). Pearson, USA.

Sotiriadis, M. D., & Van Zyl, C. (2013). Electronic word-of-mouth and online reviews in tourism services: the use of twitter by tourists. *Electronic Commerce Research*, 13(1), 103-124.

Sparks, B. A., Perkins, H. E., & Buckley, R. (2013). Online travel reviews as persuasive communication: The effects of content type, source, and certification logos on consumer behavior. *Tourism Management*, 39, 1-9.

Steen Jacobsen, J. K. (2007). Use of landscape perception methods in tourism studies: A review of photo-based research approaches. *Tourism Geographies*, 9(3), 234-253.

Sun, M., Zhang, X., & Ryan, C. (2015). Perceiving tourist destination landscapes through Chinese eyes: The case of South Island, New Zealand. *Tourism Management*, 46, 582-595.

Takahashi, K. (2019). Tourism demand and migration nexus in Small Island Developing States (SIDS): applying the tourism demand model in the Pacific region. *Island Studies Journal*, 14(1).

Trauer, B., & Ryan, C. (2005). Destination image, romance and place experience—an application of intimacy theory in tourism. *Tourism Management*, 26(4), 481-491.

Triantafillidou, A., & Petala, Z. (2016). The role of sea-based adventure experiences in tourists' satisfaction and behavioral intentions. *Journal of Travel & Tourism Marketing*, 33(sup1), 67-87.

Tussyadiah, I. P. (2016). Factors of satisfaction and intention to use peer-to-peer accommodation. *International Journal of Hospitality Management*, 55, 70-80.

Twining-Ward, L., & Butler, R. (2002). Implementing STD on a small island: Development and use of sustainable tourism development indicators in Samoa. *Journal of sustainable tourism*, 10(5), 363-387.

UN (2011) Small Island Developing States, United Nations, New York.

Uysal, M. & Modica, P. (2016). Island Tourism: Challenges and Future Research Directions. *Sustainable Island Tourism: Competitiveness and Quality of Life*, 173-188.

Wall, G. (1993). International collaboration in the search for sustainable tourism in Bali, Indonesia. *Journal of Sustainable Tourism*, 1(1), 38-47.

WTTC (2015) *Travel & Tourism Economic Impact*. World Travel and Tourism Council. London, UK.

Wu, M. Y., Wall, G., & Pearce, P. L. (2014). Shopping experiences: international tourists in Beijing's silk market. *Tourism Management*, 41, 96-106.

Xiang, Z., & Gretzel, U. (2010). Role of social media in online travel information search. *Tourism management*, 31(2), 179-188.

Yang, B., Liu, Y., Liang, Y., & Tang, M. (2019). Exploiting user experience from online customer reviews for product design. *International Journal of Information Management*, 46, 173-186.

Ye, Q., Law, R., Gu, B., & Chen, W. (2011). The influence of user-generated content on traveler behavior: An empirical investigation on the effects of e-word-of-mouth to hotel online bookings. *Computers in Human Behavior*, 27(2), 634–639.

Zen, M. H., & Wulandari, D. (2016). Development Strategy of The Tourism Industry in Banyuwangi Regency (Case Study: Natural Park Ijen Crater Banyuwangi). *Journal of Business and Management*, 18(8), 41-47.

Zhang, Y., & Cole, S. T. (2016). Dimensions of lodging guest satisfaction among guests with mobility challenges: A mixed-method analysis of web-based texts. *Tourism Management*, 53, 13-27.

Zhang, Z., Ye, Q., Law, R., & Li, Y. (2010). The impact of e-word-of-mouth on the online popularity of restaurants: A comparison of consumer reviews and editor reviews. *International Journal of Hospitality Management*, 29(4), 694-700.