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Destination Brand Experience and Place Attachment: A Study at the Peneda-Gerês National Park

Abstract

Brand experience and place attachment are key issues of a destination as it is increasingly important that visitors develop attachment and positive attitudes towards the natural environment, which is generally related to a high level of satisfaction. The current research explores the relationship between destination brand experience (DBE) and place attachment, their implications with pro-environmental behaviours, behavioural intentions (revisit or recommend), and tourists' satisfaction in the context of natural protected areas. A survey was conducted at Peneda-Gerês National Park, Portugal. A total of 507 valid questionnaires were analysed using structural equations modelling. The findings show the relevance of DBE with the other constructs. It was in the relationship between DBE and satisfaction that the highest path coefficient was verified. The association between place attachment and satisfaction was not confirmed inducing the idea that satisfaction is not enough for tourists to create attachment bonds. However, DBE can lead to the creation of emotional and affective ties to a particular destination. As a practical implication, the management entities should invest in strategies that can get visitors more identify with this natural area, to increase the level of experience and the degree of satisfaction.

Keywords: destination brand experience, place attachment, protected areas, Peneda-Gerês National Park

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1. Introduction

In the tourism activity, “there has been an increase in the number of destinations” (Abodeeb, 2014, p. 7) and their diversification to attract various types of tourists, which has been reinforcing the competition between destinations (Cronjé & du Plessis, 2020). In this sense, those destinations aspire to cause a positive impression, related to a strong degree of satisfaction, to stimulate the tourists' loyalty (Bi et al., 2020; Rather et al., 2020). Currently, to be successful, tourist destinations must understand the consumption of tourist products, as this element can enhance tourists' loyalty to a certain area.

The growing competition in the tourist market and the perception of the importance of loyal customers have contributed to repeat visitors becoming a crucial aspect “in the investigation, management and marketing of destinations” (Yasir et al., 2021, p. 856). It is therefore important to ensure a regular flow of

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visitors that may help the destination develop consistently. The central issue in ensuring the development of a destination is how to get tourists to revisit and/or recommend that place (Martins et al., 2021). The sustainable development of a destination requires that the destination can attract tourists, but also can keep customers (Silva, 2015).

Personal experiences and social interaction constitute the fundamental elements that contribute to a person attributing special significance to a certain place and assuming it as part of his/her own identity. One of the ways to strengthen the destination-tourist relationship may be through place attachment, a concept widely studied in the context of neighbourhood relations and in the attachment to property (Kyle et al., 2005); of geographical and environmental studies (Walker & Ryan, 2008); and in the context of tourism activity (Santos, 2015; Silva, 2015). Customer satisfaction, customer loyalty and the development of place attachment form a solid symbiosis in the pursuit of promoting a tourist destination (Martins, 2018).

Another way of strengthening the destination-tourist relationship is to apply the brand concept to tourism, in its various areas, namely, Destination Image (Lu & Atadil, 2021), Destination Brand Loyalty (Liu et al., 2020); Consumer-Based Brand Equity for Destination (Rodríguez-Molina et al., 2019); Destination Brand Personality (Mirabent et al., 2019); and DBE (Barreto et al., 2019).

Therefore, it is essential to study the factors that may provide to the maintenance and loyalty of tourists at a tourist destination. Thus, this research intends to deepen the understanding and the relationship between constructs, namely, DBE and place attachment, satisfaction and future behavioural intentions to recommend and maintain tourists. Given that lately there has been an increasing awareness of environmental problems (Halpenny, 2010), we also seek to establish relationships with the concepts previously mentioned with pro-environmental behaviours. A conceptual model was developed to answer the research question: “What implications do DBE and place attachment have on pro-environmental behaviours, behavioural intentions (revisit and recommend) and satisfaction towards a protected area like the Peneda-Gerês National Park?”.

Located in the “northwest of Portugal, the PGNP occupies an area of approximately 703 square kilometres and it is divided into eighteen parishes belonging to five municipalities (Terras de Bouro, Montalegre, Melgaço, Arcos de Valdevez and Ponte da Barca), inhabited by 6,383 people in 2019” (Martins et al., 2021, p. 7). This is a natural area with several protection statuses, both in Portugal (national park) and internationally (World Biosphere Reserve, by UNESCO; Site of Community Importance/ Natura 2000 Network, by Europe Union).

Besides deepening the understanding of these various constructs and their relationship, it is also the aim of this research to provide a relevant contribution to institutional decision-makers, management entities and economic agents in decision-making for a better definition of strategies in tourist destinations.

2. Literature and hypotheses

2.1. The brand experience and its application to tourism

The definition of brand experience that most authors recognise and most cited is from Brakus et al. (2009). The authors conceptualised the brand experience construct considering that they are subjective and internal consumer responses, as well as behavioural responses, evoked by stimuli that are part of the brand, its design and identity, packaging, communication and environment. To measure this construct, they created a scale, based on four experience dimensions, highly relevant for brands: a) Sensory which refers to the human senses; b) Affective which manifests itself through the feelings of consumers; c) Behavioural which seeks lifestyles and interactions; d) Intellectual that appeals to consumer creativity and innovation, leading to feelings such as admiration or surprise.

Throughout time, memorable brand experiences, stored in the consumer's memory, may affect consumer satisfaction and, additionally, “brand attachment plays an important role in the development of positive behavioural intentions” (Hwang et al., 2021, p. 3).

In the tourism context, the DBE construct is a construct with comprehensive characteristics, which provides a holistic view and a more complete assessment based on the affective, sensory, behavioural and intellectual dimensions of the brand (Brakus et al., 2009). This is because, according to Barnes et al. (2014, p. 122), while “brand attitudes are general evaluations, brand experiences include specific sensations, feelings, cognitions, and behavioural responses triggered by specific brand stimuli”.

This study is an opportunity to test this scale on a tourist destination and its relationship with satisfaction and behavioural intentions. Behavioural intentions are understood as a set of behaviours that visitors will do, namely revisit or recommend a tourist destination. It is assumed that “after a positive experience at a particular destination where, in general terms, expectations were met and in some cases even exceeded, tourists experience a feeling of overall satisfaction” (Silva, 2015, p. 74). According to the investigator, to provide satisfaction, the reliability of the destination also contributes, namely, if it met the expectations initially created and the predictability of the destination, “leading to significant levels of confidence in that destination” (Martins et al., 2021, p. 7). If there are high levels of trust in a particular destination, tourists will be more motivated to revisit or recommend a destination. Furthermore, we intended to analyse the relationship between DBE and place attachment, a major gap in tourism literature, as well as pro-environmental behaviours, an aspect that we consider important since this is a protected area.

Consequently, we have formulated the following hypothesis:

H₁ - A remarkable DBE influences positively pro-environmental behaviours;

H₂ - A remarkable DBE influences positively the tourists' behavioural intentions to revisit and recommend that destination;

H₃ - A remarkable DBE influences positively the relationship between visitors and place attachment;

H₄ - A remarkable DBE influences positively the overall satisfaction of tourists to that destination;

2.2. The attachment and its relevance to tourist destinations

The notion of place attachment comes from attachment theory, a theory based on three fundamental principles: affective bond, attachment and attachment behaviour. This theory has encompassed various fields of knowledge, in its scope, covering attachments and bonds to people, places (Jorgensen & Stedman, 2001; Kyle et al., 2005), tourist destinations (Chen & Phou, 2013), social environment (Milligan, 1998), residences/homes/neighbourhoods (Hernández et al., 2010) and services (Brocato, 2006). The feeling of physical and emotional well-being to “place” “can be considered as a sign that the individual has created an emotional bond with the place” (Yuksel et al., 2010, p. 275). There are places, spaces, and destinations where people feel particularly good as if they were in their own homes (Silva, 2015). Place attachment “involves the interaction between affections and emotions, between knowledge and beliefs, between behaviours and actions towards place” (Low & Altman, 1992, p. 5). Brocato (2006) corroborates this idea by stating that through the development of relationships, over time, in specific contexts, individuals create emotional bonds with places. Attachment relationships can be created between people and buildings, environments, landscapes, cities or countries (Silva & Correia, 2017). According to Harris et al. (1996, p. 299), the place cannot only be understood as a physical space but also as a “holistic phenomenon involving environmental, social, psychological and temporal processes”. Therefore, places comprise the physical environment, but also the human experiences that occur in it, as well as their interpretation and meaning (Jorgensen & Stedman, 2001).

According to Williams and Soutar (2009), tourism intersects with a place in the following aspects: a) many forms of tourism are strongly rooted in a sense of place; b) the perceptions and motivations of tourists are directly shaped by how they imagine places; c) tourist places generally have a positive charge of symbolism which, as a rule, is per se a factor of attraction; d) tourism is one of the main means through which the identity of a place can be built and maintained e) tourism can be a means by which people develop affective links with a place and for which the place becomes a meaningful place; f) tourist places are places of memories for many tourists (the photographs and "souvenirs" that tourists acquire in the places visited are a way of remembering tourist experiences); e) tourist places promote a sense of belonging (Poljanec-Borić & Šikić, 2018).

Therefore, places, due to the meanings they contain, their symbolic charge, by the experiences they provide, are not only a receptacle and a space to support physical attributes and activities. Therefore, it is important that a tourist destination is no longer seen as a receptacle and not only meets the needs and expectations of tourists but also seeks to involve them emotionally, to make them loyal. We, therefore, corroborate the idea of Silva (2015) when he states that the ability to build places of attachment can be crucial to the positive evaluation of tourists about the places visited and, in this way, be an additional factor to increase loyalty rates and increase the number of repeat tourists.

Competitiveness among tourist destinations generates the need to find differentiated strategies that aim to attract and fascinate visitors (Skoko et al., 2018). Customer satisfaction, loyalty and the construct of place attachment form a solid symbiosis in the promotion of a tourist destination. Indeed, studies consider "place attachment as a multidimensional construct composed of four subdimensions: place dependence, place identity, affective attachment and social bonding" (Ramkissoon et al., 2013, p. 553) that should be seen as a whole and not in a partial way (Santos, 2015).

The construct of place attachment has also been considered to be a variable that determines satisfaction (Lee & Jeong, 2021), pro-environmental behaviour (Kim & Koo, 2020) and loyalty (Patwardhan et al., 2020). Therefore, we corroborate Silva's opinion (2015) when he affirms that the capacity to develop places of attachment can be important to positive feedback provided by tourists regarding the places they have visited. Consequently, place attachment can be an additional factor to increase the rates of loyalty and the number of repeat tourists.

Therefore, we have formulated the following hypothesis:

H₅ – Place attachment influences positively pro-environmental behaviours;

H₆ – Place attachment influences positively tourists' behavioural intentions to revisit and recommend that destination;

2.3. Satisfaction in the field of tourism and the pro-environmental behaviours

The degree of satisfaction or dissatisfaction of tourists visiting a given destination is intrinsically associated with the quality of the experiences they had at that destination. Authors such as Chi and Qu (2009) and Zhang et al. (2019), among others, consider that when products and their characteristics, as well as other resources, provide positive tourist experiences, they positively influence tourists' satisfaction.

Wang et al. (2009, p. 403) consider that "tourist satisfaction is a feeling generated by both the cognitive and emotional aspects of tourist activities, as well as an accumulated assessment of various components and characteristics of the destination", defining satisfaction, simultaneously, as a result, and a cognitive-affective process.

With regard, to the experience of a tourist destination, satisfaction is linked to the affective and intellectual components. Therefore, when the tourist perceives an effective correspondence between his initial expectations and a positive global experience (Jung & Soo, 2012), there is satisfaction.

For the last two decades, “several studies that have shown significant associations between place attachment and pro-environmental behaviours” (Ramkissoon et al., 2013, p. 553) have been standing out, such as the ones carried out by Halpenny (2010), Song and Soopramanien (2019), Daryanto and Song (2021). In addition, this revitalization of the pro-environmental behaviours construct is associated with the growth of alternative tourism. Protected areas are “places that offer stimuli, excitement and adventure” (Beedie & Hudson, 2003, p. 192).

Nevertheless, as Ramkissoon et al. (2013) suggest, further studies are needed in this field, namely studies relating to place attachment, with its four subdimensions as a whole, and pro-environmental behaviours. This is a relationship that we intend to analyse in this investigation, using scales that were already validated.

Consequently, we have formulated the following hypothesis:

H₇ - A high degree of satisfaction influences positively pro-environmental behaviours;

2.4. Behavioural intentions: Loyalty and recommendation in the tourist context

In the context of a tourist destination, behavioural intentions are related to the visitor’s idea of revisiting a tourist destination, as well as recommending it to others (Shang et al., 2020), which is fundamental for the planning, management and marketing of tourist destinations.

Generally, behavioural intentions arise as a result of an emotional reaction triggered by certain constructs such as service quality, perceived value and, of course, overall satisfaction (Silva, 2015). This last construct is the main link, having a direct effect on the behaviour intentions in the tourism sector. Tourist satisfaction is essential for the success of tourist destinations, either for marketing strategies or for economic improvement through tourism, as it affects the decision-making processes, expenses and future behaviour (Mainolfi & Marino, 2020).

Consequently, we have formulated the following hypothesis:

H₈ - A high degree of satisfaction influences positively tourists’ behavioural intentions to revisit and recommend that destination;

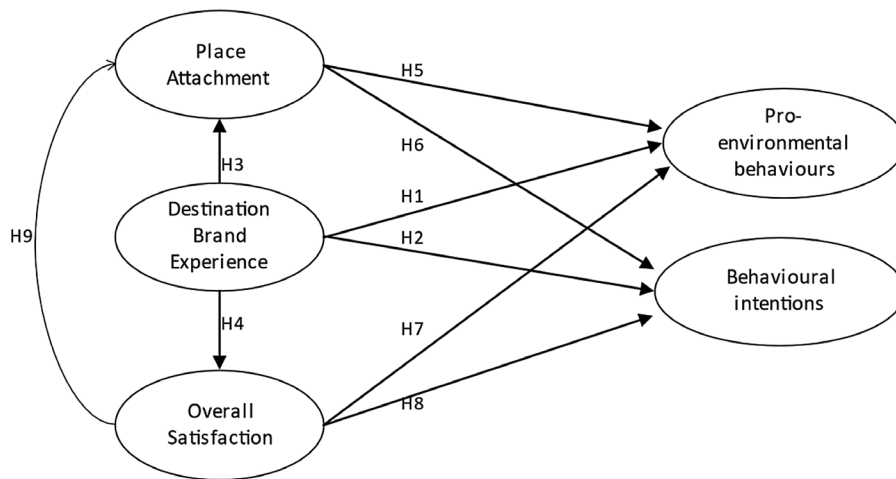
H₉ - A high degree of satisfaction contributes to the creation of affective bonds in a relation to place attachment.

3. Methodology

After defining and clarifying the constructs that we intended to study and formulating the research hypotheses, we analysed which scales would allow us to measure and validate the various constructs that make up the conceptual model of this research. After a thorough search and analysis of vast bibliographic support, aiming at the selection of scales with high levels of reliability and internal consistency, reducing, on the one hand, the margin of error and, on the other hand, increasing the efficiency of this study, we selected a set of scales, recently validated and tested, to create our model for this research. Only then did we move on to the implementation and data collection phase.

The design of the conceptual model that supports our investigation was developed (Figure 1) based on nine research hypotheses.

Figure 1
Research model



The conceptual model allowed us to hypothetically establish the existing relationships between the constructs. Thus, the main elements of this research model are DBE and place attachment. We seek to understand their relationship with other constructs, namely, overall satisfaction, pro-environmental behaviours and behavioural intentions to revisit and/or recommend in a relation to a natural area with particular attributes, the PGNP.

To answer the research question “What implications do DBE and place attachment have on pro-environmental behaviours, behavioural intentions (revisit and recommend) and satisfaction towards a protected area like the PGNP?”, a set of objectives were identified, namely: a) to deepen the understanding on the role of the constructs of DBE and place attachment, analysing their influence on the formation of the tourist-destination relationship, in the scope of satisfaction, pro-environmental behaviours and behavioural intentions (to return and in the willingness to recommend to family and friends); b) to test scales validated in other studies, in the context of a specific tourist destination as is the case of the PGNP protected area, thus contributing to advance research in the fields of tourism and destination marketing; and c) To infer results that will help institutional decision-makers, destination managers and economic agents (entities promoting the region) in decision-making for a better definition of strategies.

A pre-test was conducted to validate the questionnaire in May. In our pre-test 40 cases were surveyed, with the characteristics and diversity of the population to be surveyed, and in the same context as the one where the definitive questionnaires would be applied (visitors who stayed overnight in the territory covered by the PGNP). The results of the pre-test led only to minor adjustments and the clarification of one or another question. The effectiveness of the questionnaire was confirmed and the analysis did not result in any indicator suggesting major changes to the data collection instrument.

The target population were tourists who had spent the night at the PGNP. The chosen technique was the questionnaire survey, available in four languages (Portuguese, Spanish, English and French), to get the opinion of tourists who had visited this natural area (national and foreign). The measurement of the constructs was done through an interval attitude scale in the Likert interval format. Qualitative variables were also used, in particular, to measure the socio-demographic profile of the tourists. We aimed to give greater strength and consistency to the scales, basing them on adaptations of previously tested scales and on more than one author, which allowed the verification of the hypotheses (Table 1).

Table 1
Scales used and measurement indicators (with authors)

Constructs	Authors on which we based the application of the study
Destination brand experience (construct) - Sensory dimensions (component) 1. I got a good impression of the PPNP (visual, auditory...) 2. I find the PGNP interesting, awakening various sensations. 3. The PGNP appeals to my senses. - Emotional dimension (component) 4. The PGNP transmits feelings and tranquillity. 5. I feel strong emotions when I am in the PGNP. 6. The PGNP is a hospitable region. - Behavioural dimension (component) 7. I usually exercise my body when I am in the PGNP. 8. The PGNP offers enjoyable physical experiences. 9. The PGNP is oriented towards sports practices. - Intellectual dimension (component) 10. I usually meditate when I am in the PGNP. 11. The PGNP makes me meditate. 12. The PGNP stimulates my curiosity.	Barnes et al. (2014) Brakus et al. (2009)
Place attachment (construct) - Place affect (component) 1. For this holiday, I could not imagine anything better than PGNP. 2. For the activities I like to do, the conditions in the PGNP are ideal. 3. I enjoy visiting PGNP and its environment more than any other parks. - Place dependence (component) 4. I identify with PGNP. 5. I feel that PGNP is part of me. 6. A visit to PGNP says a lot about who I am. - Place identity (component) 7. I am very attached to PGNP. 8. I feel a strong sense of belonging to this natural area. 9. PGNP means a lot to me. - Place social bonding (component) 10. Many of my friends prefer this natural area over other parks. 11. If I had to stop visiting PGNP, I would lose contact with a large number of friends. 12. My friends would be disappointed if I started going on holiday to another park.	Ramkissoon et al. (2013) Yuksel et al. (2010)
Overall satisfaction (construct) 1. The holiday experience in this destination made me very happy. 2. The experience met my needs and wishes. 3. Overall, I was satisfied with the PGNP as a holiday destination.	Barnes et al. (2014) Yuksel et al. (2010)
Behavioural intentions (revisit and recommend) (construct) 1. I intend to revisit the PGNP again. 2. I intend to recommend the PGNP to my friends and family.	Chen & Phou (2013) Chi & Qu (2009)
Pro-environmental behaviours (construct) 1. I would participate in meetings about the promotion and preservation of PGNP. 2. I would give my time in favour of projects that would help PGNP. 3. I would write letters of support in favour of PGNP.	Halpenny (2010) Ramkissoon et al. (2013)

The sample was non-probabilistic for convenience and considered significant (McDaniel & Gates, 2004), with a total of 507 respondents. To carry out the empirical research, the collaboration of the receptionists from the local accommodation units was requested. Most of them agreed to deliver the questionnaire to their guests. The questionnaire, applied before the Covid-19 pandemic, from June to October (in the so-called high season - months with a high number of tourists) was fulfilled by the respondents.

Statistical analysis was performed using SPSS (version 27) and AMOS software. Confirmatory Factor Analysis was performed to confirm the underlying structure of latent variables (DBE and place attachment), tourists' overall satisfaction, pro-environmental behaviours and behavioural intentions to revisit and/or recommend a destination.

Thus, so that all constructs and observed variables were at the same level, a Principal Components Analysis was performed to verify the plausibility of the relationship between the items (observed variables) present in each component of the first two constructs (DBE and place attachment). The positive verification led to the reduction from twelve to four observed variables (corresponding to the dimensions/components) in these constructs. The transformation of the components into observed variables, for item effect, was performed through the mean of the three items in each component (Table 2).

Table 2
Final variable structure

1. Destination brand experience (construct)
1.1 Sensorial (item)
1.2 Affective (item)
1.3 Behavioural (item)
1.4 Intellectual (item)
2. Place attachment (construct)
2.1 Affect (item)
2.2 Dependence (item)
2.3 Identity (item)
2.4 Social bonds (item)
3. Overall satisfaction (construct)
3.1 The holiday experience in this destination made me very happy (item)
3.2 The experience met my needs and wishes (item)
3.3 Overall, I was satisfied with the PGNP as a holiday destination (item)
4. Behavioural intentions (construct)
4.1 Revisit (item)
4.2 Recommend (item)
5. Pro-environmental behaviours (construct)
5.1 I would participate in meetings about the promotion and preservation of PGNP (item)
5.2 I would give my time in favour of projects that would help PGNP (item)
5.3 I would write letters of support in favour of PGNP (item)

Structural equation modelling was used to evaluate the research hypotheses, by calculating estimates (β). The estimate was based on the maximum likelihood method. Normality was verified by assessing asymmetry and kurtosis. The evaluation of the internal reliability of the measurement model was performed using Cronbach's alpha, composite reliability (considering > 0.7 (Nunnally, 1978)) and convergent validity with average variance extracted (AVE) (considering > 0.50 (Fornell & Larcker, 1981)) (Table 3).

Table 3
Internal reliability index (composite reliability and Cronbach's alpha) and AVE

Constructs	Composite reliability (CR)	Cronbach's alpha	Average variance extracted (AVE)
Destination brand experience	0.84	0.89	0.58
Place attachment	0.89	0.93	0.68
Tourists' overall satisfaction	0.89	0.89	0.72
Behavioural intentions (revisit and recommend)	0.89	0.88	0.71
Pro-environmental behaviours	0.90	0.80	0.75

In terms of reliability and validity of the measurement model, the constructs showed very good values of composite reliability and Cronbach's alpha (above 0.80). The average variance extracted was above 0.50, suggesting the good quality of the measurements.

Place attachment was the construct with the highest consistency of internal reliability, with a Cronbach's Alpha of 0.93, followed by other strongly consistent constructs: DBE and overall satisfaction, both with 0.89.

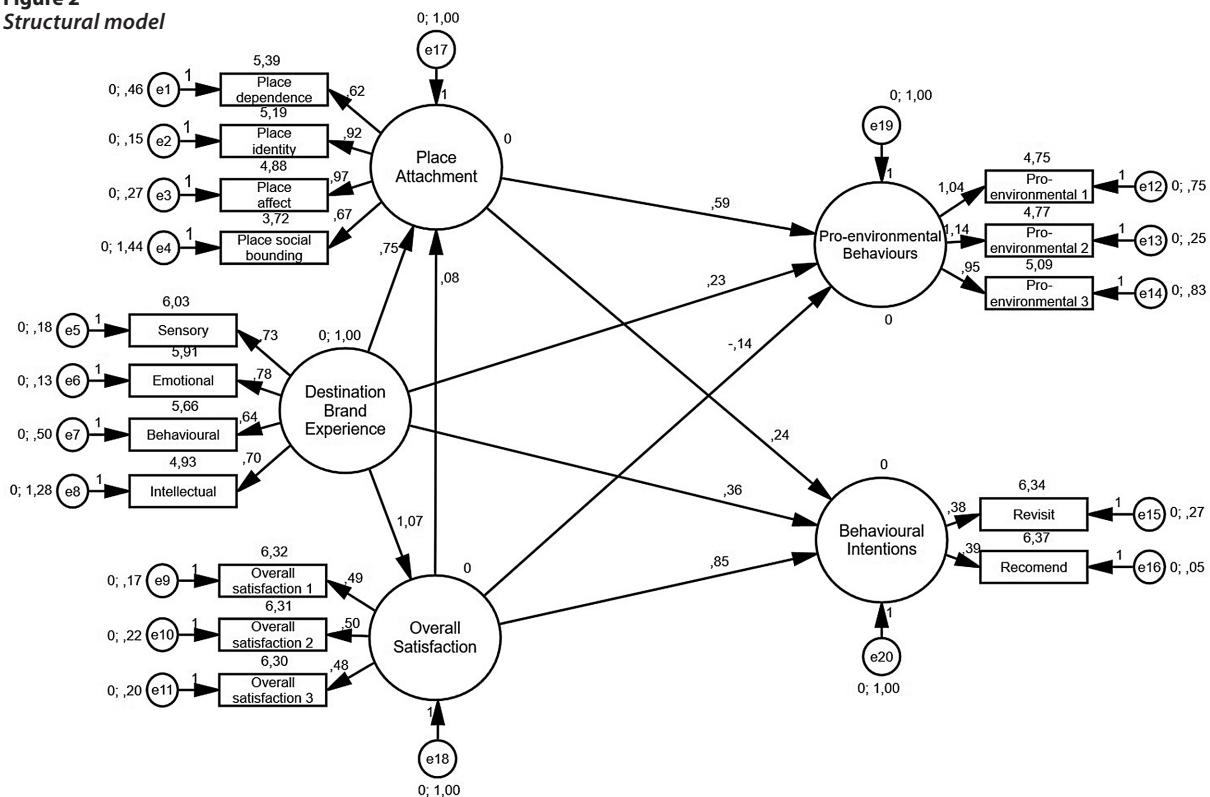
Pro-environmental behaviours were the constructs that presented a lower consistency of internal reliability (0.80); however, this value is higher than the ones suggested by Nunnally (1978).

4. Analysis and discussion of the results

The data from the sample questionnaires (N = 507) were inserted in the SPSS Statistics software (version 27). It was possible to make a descriptive analysis of them and characterize the socioeconomic aspects and the tourists' stay, to draw a profile of the PGNP tourist. The data revealed that the sample consisted mainly of male tourists (51.1%), married (58.8%), aged between 26 and 35 (30%) or between 36 and 45 years (24.9%), with a predominance of graduates (38.9%) and employees (47.7%). They were also mainly national tourists (85.8%) and repeat tourists (71%). However, considering the sample, it was not very common for the respondents to visit protected areas; actually, only 40.4% said they had visited protected areas before. Due to the fact, that the municipality of Terras de Bouro has greater visibility in terms of tourism (as it concentrates most of the local accommodation units and tourism enterprises), the majority of the respondents chose to stay in that municipality (79.1%) and most of them stayed for four nights. Despite the new technologies and the various means of communication that advertise this tourist destination, 63.2% of the respondents stated that they already knew it and 29.1% stated that they had first heard about it through friends and family. The three main reasons for staying at the PGNP were resting (86%), contacting with nature (76.5%) and having fun (32.3%) and the main activities practised there were hiking (74%), photography (72.8%) and going for a drive (61.1%).

After reducing the variables of the place attachment and the DBE constructs through the Principal Components Analysis, the final structure of the variables was identified to carry out a confirmatory factor analysis and test the hypotheses. The measurement model consisted of five latent variables and 16 observed variables: place attachment (four variables observed), DBE (four variables observed), overall satisfaction (three variables observed), pro-environmental behaviours (three variables observed) and behavioural intentions (two variables observed).

Figure 2
Structural model



After estimating an appropriate measurement model, we built a structural model (Figure 2) whose purpose was to test a set of nine hypotheses through the analysis of the coefficients (which measure the direction and impact of the relationships between the constructs / latent variables) and through a Z-test, whose results of the p-value allowed to confirm ($p < .05$) or not to confirm ($p \geq .05$) the hypotheses. The estimation of the coefficients followed the maximum likelihood method. This method considers that all observed variables have continuous distribution, which is often not the case, as almost all validated scales have ordinal variables with ordinal distribution. However, this method has already proven to be robust, even in the case of estimation for ordinal variables (Marôco, 2010).

Like the measurement model, the adjustment of the structural model partially met the defined criteria, with good results of adjustment in the values of TLI (0.90) and CFI (0.92). The results of the AIC criterion suggest that the error of the specified model is less than that of the saturated model and thus more likely to explain the relationships between the variables. The RMSEA adjustment criterion, despite being at 0.80, is considered acceptable, since it has not exceeded the 90% confidence interval (90% CI). The adjustment criterion not reached was related to X^2/df , which was 3.36 (> 3) (Table 4).

Table 4
Structural model adjustment

Adjustment measures	Model adjustment value	Adjustment criterion
X^2/df	3.36	< 3
RMSEA (IC 90%) p-close	0.80	< 0.70
TLI	0.90	> 0.90
CFI	0.92	> 0.90
AIC	717.85 < 6529.21	

The results of the adjustment measures used, both in the measurement model and in the structural model, suggest that the defined criteria were partially met, with a reliable assessment of their parameters. Therefore, it was possible to move on to the next phase: the analysis of the explanatory power of the model's latent variables over the relationships that were established, that is, the test of the hypotheses formulated in the theoretical model.

The hypotheses were tested by assessing the relationship (or regression coefficient) between the exogenous variables and the endogenous variables. The evaluation of the significance of a regression coefficient is performed by analysing the respective Z test, which uses a normal distribution to calculate the probability of rejection of the null hypothesis. The statistically significant results considered to be greater than 1.96 ($Z > 1.96$) represent a probability of rejecting H_0 less than 5%.

Table 5 represents the estimates of the structural model and the summary of the hypotheses formulated. The results show that out of nine relationships proposed in the final model, seven were confirmed by the results and two were not. Thus, the estimates found for the structural model allowed us to confirm the hypotheses H_1 ($p = .017$), H_2 ($p < .001$), H_3 ($p < .001$), H_4 ($p < .001$), H_5 ($p < .001$), H_6 ($p < .001$) and H_8 ($p < .001$), with statistically significant results. H_7 ($p = .013$) and H_9 ($p = .160$) were not confirmed.

The highest path coefficient/regression coefficient found in this study was related to the impact of the DBE on overall satisfaction ($\beta = 1.07$, $p < .001$), suggesting that a greater DBE reflects greater satisfaction (Table 5).

The positive effect of the DBE was also felt in a statistically significant way in pro-environmental behaviours ($\beta = 0.23$, $p = .017$), behavioural intentions ($\beta = 0.36$, $p = < .001$) and place attachment ($\beta = 0.75$, $p < .001$) (table 4).

Table 5
Estimates of the structural model and summary of the hypotheses formulated

Hypotheses	Exogenous variables		Endogenous variables	Est.	SE	Z	p-value	Conclusion
H ₁	DBE	→	Pro-environmental behaviours	0.23	0.10	2.39	p=.017	Confirmed
H ₂	DBE	→	Behavioural intentions	0.36	0.11	3.38	p<.001	Confirmed
H ₃	DBE	→	Place attachment	0.75	0.09	8.08	p<.001	Confirmed
H ₄	DBE	→	Overall satisfaction	1.07	0.08	12.86	p<.001	Confirmed
H ₅	Place attachment	→	Pro-environmental behaviours	0.59	0.06	9.77	p<.001	Confirmed
H ₆	Place attachment	→	Behavioural intentions	0.24	0.06	3.92	p<.001	Confirmed
H ₇	Overall satisfaction	→	Pro environmental behaviours	-0.14	0.06	2.48	p=.013	Not confirmed ^a
H ₈	Overall satisfaction	→	Behavioural intentions	0.85	0.09	9.48	p<.001	Confirmed
H ₉	Overall satisfaction	→	Place attachment	0.08	0.06	1.41	p=.160	Not confirmed

Note: Est.= Estimates. SE= Standard error.

^aNot confirmed due to the direction of the sign of the coefficient.

Place attachment had a positive and statistically significant impact on pro-environmental behaviours ($\beta = 0.59$, $p < .001$). These data are in line with the findings of the study by Chow et al. (2019, p. 1), conducted in protected areas in China, which highlights “place dependence and place identity is positively correlated with the (...) environmentally responsible behavioural intention of visitors”. Similarly, had a positive and statistically significant impact on behavioural intentions ($\beta = 0.24$, $p < .001$), suggesting that a greater sense of attachment to the destination results in more pro-environmental behaviours and higher intentions to revisit and recommend (Table 5).

Despite the statistically significant result, the impact of overall satisfaction on pro-environmental behaviours had a negative sign, which did not reflect what was initially established (Table 5); that is why this hypothesis was not confirmed.

The results of this study corroborate the results of Barnes et al. (2014) when they state that “the destination brand experience is a significant determinant of visitor results, specifically satisfaction, the intention to revisit and recommend” (Barnes et al., 2014, p. 136). Therefore, the managing of the DBE is vital. In reality, the entire set of services provided by a destination must be approached systematically and consistently. The specific sensory and affective experiences offered by a destination must be carefully selected according to its characteristics. It is very important to meet the tourists’ expectations and their perceived image of the destination. In fact, tourists value their memorable experiences. It is established on this understanding that managing entities should define effective strategies for the provision of services that may correspond to the tourists’ satisfaction (Silva, 2015).

Likewise, it is important to mention that the relationship between DBE and place attachment may be an enhancing factor in attracting tourists to the region, corroborating the results of other studies. The study of Shang et al. (2020, p. 1), indicates that “affective and behavioural experience indirectly influence place attachment”.

5. Conclusion

Nowadays, tourism is becoming more and more relevant (Martins, 2022). The market for tourist destinations is increasingly competitive and there has been a progressive growth in the number of offers, where protected spaces are included. Besides, there are several factors which can contribute to tourists’ loyalty regarding a specific tourist destination.

Focussing on the PGNP territory, this work had DBE and place attachment as its main constructs. It aimed to analyse their implications in pro-environmental behaviours, behavioural intentions (revisit and/or recommend)

and overall satisfaction, through a conceptual model and a set of research hypotheses. With this study, it was possible to test scales from other investigations corroborating those studies, in the context of a specific tourist destination as is the case of the protected area PGNP, thus contributing to the advancement of research in the fields of tourism and marketing of tourist destinations.

The main results, which corroborate the literature, showed that, although satisfaction is not enough for tourists to form bonds with a certain destination, DBE has a relevant role, having a strong influence on all the constructs. DBE can stimulate not only attachment but also loyalty regarding a tourist destination.

With the present research, and in line with other studies, namely Chow et al. (2019), Halpenny (2010), Jorgensen and Stedman (2001), Ramkissoon et al. (2013) and Shang et al. (2020), an important conclusion to be drawn is that the managing entities of the PGNP and other stakeholders need to take into account that, to increase and/or promote the affective component for the PGNP, they should invest in strategies that can make visitors identify more with the park, at the level of activities and infrastructures, seeking that these attributes become distinct and genuine, compared to those of other protected areas, and should not neglect the preservation and conservation of the natural landscape, a preponderant attribute for the creation of emotional ties. In addition, it is important to create a brand image of Portugal, overall, and of its tourist regions, in particular. This study contributed to the development and consolidation of the PGNP brand, is crucial that there is a marketing policy structured according to the identity and intrinsic characteristics of the territory, to distinguish, among the various tourist destinations, its brand identity (Dyankov, Krastev, & Yancheva, 2018).

One of the limitations of this research is related to the duration of the empirical study, carried out from June to October. In fact, it did not allow the collection of data from tourists visiting the PGNP during some other part of the year. Another limitation concerns the composition of the sample, including most national tourists.

For future studies, we recommend the analysis of the circumstances underlying place attachment. Bearing in mind that the attachment to a particular tourist destination can lead to future intentions to revisit or recommend, it is important to study the origin of that attachment, namely the factors that influence the creation and strengthening of emotional bonds between tourists and destinations, which is particularly relevant for the management entities of those tourist destinations.

References

- Abodeeb, J.A.. (2014). *Destination image from an Arab perspective: The influence of culture on perceptions of and motivations for visiting the Gold Coast, Australia* [Doctoral dissertation, Southern Cross University]. Research portal. <https://researchportal.scu.edu.au/esploro/outputs/doctoral/Destination-image-from-an-Arab-perspective/991012821327402368#file-0>
- Barnes, S.J., Mattsson, J., & Sørensen, F. (2014). Destination brand experience and visitor behavior: Testing a scale in the tourism context. *Annals of Tourism Research*, 48, 121–139. <https://doi.org/10.1016/j.annals.2014.06.002>
- Barreto, J., Sthapit, E., Rubio, N., & Campo, S. (2019). Exploring the dimensions of online destination brand experience: Spanish and North American tourists' perspectives. *Tourism Management Perspectives*, 31, 348–360. <https://doi.org/10.1016/j.tmp.2019.07.005>
- Beedie, P., & Hudson, S. (2003). Emergence of mountain-based adventure tourism. *Annals of Tourism Research*, 30(3), 625–643. [https://doi.org/10.1016/S0160-7383\(03\)00043-4](https://doi.org/10.1016/S0160-7383(03)00043-4)
- Bi, J.-W., Liu, Y., Fan, Z.-P., & Zhang, J. (2020). Exploring asymmetric effects of attribute performance on customer satisfaction in the hotel industry. *Tourism Management*, 77, Article 104006. <https://doi.org/10.1016/j.tourman.2019.104006>
- Brakus, J., Schmitt, B.H., & Zarantonello, L. (2009). Brand experience: What is it? How is it measured? Does it affect loyalty? *Journal of Marketing*, 73(3), 52–62. <https://doi.org/10.1509/jmkg.73.3.052>

- Brocato, E.D. (2006). *Place attachment: An investigation of environments and outcomes in a service context* [Doctoral dissertation, University of Texas at Arlington]. Libraries Research Commons. <http://hdl.handle.net/10106/244>
- Chen, C.F., & Phou, S. (2013). A closer look at destination: Image, personality, relationship and loyalty. *Tourism Management, 36*, 269–278. <https://doi.org/10.1016/j.tourman.2012.11.015>
- Chi, C., & Qu, H. (2009). Examining the relationship between tourists' attribute satisfaction and overall satisfaction. *Journal of Hospitality Marketing & Management, 18*(1), 4–25. <https://doi.org/10.1080/19368620801988891>
- Chow, A., Ma, A., Wong, G., Lam, T., & Cheung, L. (2019). The impacts of place attachment on environmentally responsible behavioral intention and satisfaction of Chinese nature-based tourists. *Sustainability, 11*(20), Article 5585. <https://doi.org/10.3390/su11205585>
- Cronjé, D.F., & du Plessis, E. (2020). A review on tourism destination competitiveness. *Journal of Hospitality and Tourism Management, 45*, 256–265. <https://doi.org/10.1016/j.jhtm.2020.06.012>
- Daryanto, A., & Song, Z. (2021). A meta-analysis of the relationship between place attachment and pro-environmental behaviour. *Journal of Business Research, 123*, 208–219. <https://doi.org/10.1016/j.jbusres.2020.09.045>
- Dyankov, T., Krastev, V. & Yancheva, K. (2018). Evaluation of the brand identity of Bulgaria as a tourist destination. *Tourism: An International Interdisciplinary Journal, 66*(1), 19-34. <https://hrcaj.srce.hr/197380>
- Fornell, C., & Larcker, D.F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research, 18*(3), 382-388. <https://doi.org/10.2307/3150980>
- Halpenny, E.A. (2010). Pro-environmental behaviours and park visitors: The effect of place attachment. *Journal of Environmental Psychology, 30*(4), 409–421. <https://doi.org/10.1016/j.jenvp.2010.04.006>
- Harris, P.B., Brown, B.B., & Werner, C.M. (1996). Privacy regulation and place attachment: Predicting attachments to a student family housing facility. *Journal of Environmental Psychology, 16*(4), 287–301. <https://doi.org/10.1006/jev.1996.0025>
- Hernández, B., Martín, A.M., Ruiz, C., & Hidalgo, M.C. (2010). The role of place identity and place attachment in breaking environmental protection laws. *Journal of Environmental Psychology, 30*(3), 281–288. <https://doi.org/10.1016/j.jenvp.2010.01.009>
- Hwang, J., Choe, J.Y. (Jacey), Kim, H.M., & Kim, J.J. (2021). Human baristas and robot baristas: How does brand experience affect brand satisfaction, brand attitude, brand attachment, and brand loyalty? *International Journal of Hospitality Management, 99*, Article 103050. <https://doi.org/10.1016/j.ijhm.2021.103050>
- Jorgensen, B., & Stedman, R. (2001). Sense of place as an attitude: Lakeshore owners attitudes toward their properties. *Journal of Environmental Psychology, 21*(3), 233–248. <https://doi.org/10.1006/jev.2001.0226>
- Jung, L.H., & Soo, K.M. (2012). The effect of brand experience on brand relationship quality. *Academy of Marketing Studies Journal, 16*(1), 87-98.
- Kim, M., & Koo, D.-W. (2020). Visitors' pro-environmental behavior and the underlying motivations for natural environment: Merging dual concern theory and attachment theory. *Journal of Retailing and Consumer Services, 56*, Article 102147. <https://doi.org/10.1016/j.jretconser.2020.102147>
- Kyle, G., Graefe, A., & Manning, R. (2005). Testing the dimensionality of place attachment in recreational settings. *Environment and Behavior, 37*(2), 153–177. <https://doi.org/10.1177/0013916504269654>
- Lee, W., & Jeong, C. (2021). Distinctive roles of tourist eudaimonic and hedonic experiences on satisfaction and place attachment: Combined use of SEM and necessary condition analysis. *Journal of Hospitality and Tourism Management, 47*, 58–71. <https://doi.org/10.1016/j.jhtm.2021.02.012>
- Liu, Y., Hultman, M., Eisingerich, A.B., & Wei, X. (2020). How does brand loyalty interact with tourism destination? Exploring the effect of brand loyalty on place attachment. *Annals of Tourism Research, 81*, Article 102879. <https://doi.org/10.1016/j.annals.2020.102879>
- Low, S.M., & Altman, I. (1992). Place attachment. In I. Altman & S.M. Low (Eds.), *Place attachment. Human behavior and environment* (Vol. 12, pp. 1–12). Springer. https://doi.org/10.1007/978-1-4684-8753-4_1

- Lu, Q., & Atadil, H.A. (2021). Do you dare to travel to China? An examination of China's destination image amid the COVID-19. *Tourism Management Perspectives*, 40, Article 100881. <https://doi.org/10.1016/j.tmp.2021.100881>
- Mainolfi, G., & Marino, V. (2020). Destination beliefs, event satisfaction and post-visit product receptivity in event marketing. Results from a tourism experience. *Journal of Business Research*, 116, 699–710. <https://doi.org/10.1016/j.jbusres.2018.03.001>
- Marôco, J. (2010). *Análise de equações estruturais: Fundamentos teóricos, software & aplicações* [Analysis of structural equations: Theoretical foundations, software & applications]. ReportNumber, Lda.
- Martins, H. (2018). *O turismo no Parque Nacional Da Peneda-Gerês: A experiência da marca do destino, o apego ao lugar, a satisfação, os comportamentos pró-ambientais e as intenções comportamentais* [Tourism in the Peneda-Gerês National Park: The experience of the destination brand, attachment to the place, satisfaction, pro-environmental behaviors and behavioral intentions, Doctoral dissertation, University of Coimbra]. Repositório científico da UC. <http://hdl.handle.net/10316/79717>
- Martins, H. (2022). Os impactos económicos da Covid-19 em eventos [The economic impacts of Covid-19 on events]. *Revista Turismo & Desenvolvimento*, 38, 265-280. <https://doi.org/10.34624/rtd.v38i0.25863>
- Martins, H., Carvalho, P., & Almeida, N. (2021). Destination brand experience: A study case in touristic context of the Peneda-Gerês National Park. *Sustainability*, 13(21) Article 11569. <https://doi.org/10.3390/su132111569>
- McDaniel, C., & Gates, R. (2004). *Pesquisa de marketing* [Marketing research]. Thomson Le.
- Milligan, M.J. (1998). Interactional past and potential: The social construction of place attachment. *Symbolic Interaction*, 21(1), 1–33. <https://doi.org/10.1525/si.1998.21.1.1>
- Mirabent, S., Kavaratzis, M., & Cavia, J. (2019). The role of functional associations in building destination brand personality: When official websites do the talking. *Tourism Management*, 75, 148–155. <https://doi.org/10.1016/j.tourman.2019.04.022>
- Nunnally, J.C. (1978). An overview of psychological measurement. In B.B. Wolman (Ed.), *Clinical diagnosis of mental disorders* (pp. 97–146). Springer. https://doi.org/10.1007/978-1-4684-2490-4_4
- Patwardhan, V., Ribeiro, M.A., Woosnam, K. M., Payini, V., & Mallya, J. (2020). Visitors' loyalty to religious tourism destinations: Considering place attachment, emotional experience and religious affiliation. *Tourism Management Perspectives*, 36, Article 100737. <https://doi.org/10.1016/j.tmp.2020.100737>
- Poljanec-Borić, S., Wertag, A., & Šikić, L. (2018). Sense of place: Perceptions of permanent and temporary residents in Croatia. *Tourism: An International Interdisciplinary Journal*, 66(2), 177-194. <https://hrcak.srce.hr/202746>
- Ramkissoon, H., Graham Smith, L.D., & Weiler, B. (2013). Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviours: A structural equation modelling approach. *Tourism Management*, 36, 552–566. <https://doi.org/10.1016/j.tourman.2012.09.003>
- Rather, R.A., Najar, A.H., & Jaziri, D. (2020). Destination branding in tourism: Insights from social identification, attachment and experience theories. *Anatolia*, 31(2), 229–243. <https://doi.org/10.1080/13032917.2020.1747223>
- Rodríguez-Molina, M.A., Frías-Jamilena, D.M., Del Barrio-García, S., & Castañeda-García, J.A. (2019). Destination brand equity-formation: Positioning by tourism type and message consistency. *Journal of Destination Marketing & Management*, 12, 114–124. <https://doi.org/10.1016/j.jdmm.2019.03.010>
- Santos, V. (2015). *Consumer behaviour in wine tourism: Involvement, destination emotions and place attachment in the wine tourist behaviour during the Porto wine cellars visits context*. [Doctoral dissertation, University Fernando Pessoa]. Repositório Institucional University of Fernando Pessoa. <http://hdl.handle.net/10284/5366>
- Shang, W., Yuan, Q., & Chen, N. (2020). Examining structural relationships among brand experience, existential authenticity, and place attachment in slow tourism destinations. *Sustainability*, 12(7), Article 2784. <https://doi.org/10.3390/su12072784>
- Silva, R. (2015). *O apego ao lugar como determinante das intenções comportamentais no turismo: O caso do Alentejo* [Attachment to place as a determinant of behavioral intentions in tourism: The case of Alentejo, Doctoral dissertation, University of Algarve]. Sapientia. <http://hdl.handle.net/10400.1/7681>

- Silva, R., & Correia, A. (2017). Places and tourists: Ties that reinforce behavioural intentions. *Anatolia*, 28(1), 14–30. <https://doi.org/10.1080/13032917.2016.1240093>
- Skoko, B., Jakopović, H. & Gluvačević, D. (2018). Challenges of branding in post-conflict countries: The case of Bosnia and Herzegovina. *Tourism: An International Interdisciplinary Journal*, 66(4), 411-427. <https://hrcak.srce.hr/214038>
- Song, Z., & Soopramanien, D. (2019). Types of place attachment and pro-environmental behaviors of urban residents in Beijing. *Cities*, 84, 112–120. <https://doi.org/10.1016/j.cities.2018.07.012>
- Walker, A.J., & Ryan, R.L. (2008). Place attachment and landscape preservation in rural New England: A Maine case study. *Landscape and Urban Planning*, 86(2), 141–152. <https://doi.org/10.1016/j.landurbplan.2008.02.001>
- Wang, X., Zhang, J., Gu, C., & Zhen, F. (2009). Examining antecedents and consequences of tourist satisfaction: A structural modeling approach. *Tsinghua Science and Technology*, 14(3), 397–406. [https://doi.org/10.1016/S1007-0214\(09\)70057-4](https://doi.org/10.1016/S1007-0214(09)70057-4)
- Williams, P., & Soutar, G.N. (2009). Value, satisfaction and behavioral intentions in an adventure tourism context. *Annals of Tourism Research*, 36(3), 413–438. <https://doi.org/10.1016/j.annals.2009.02.002>
- Yasir, Y., Firzal, Y., Sulistyani, A., & Yesicha, C. (2021). Penta helix communication model through community-based tourism (CBT) for tourism village development in Koto Sentajo, Riau, Indonesia. *Geo Journal of Tourism and Geosites*, 37(3), 851–860. <https://doi.org/10.30892/gtg.37316-718>
- Yuksel, A., Yuksel, F., & Bilim, Y. (2010). Destination attachment: Effects on customer satisfaction and cognitive, affective and conative loyalty. *Tourism Management*, 31(2), 274–284. <https://doi.org/10.1016/j.tourman.2009.03.007>
- Zhang, C.X., Fong, L.H.N., & Li, S. (2019). Co-creation experience and place attachment: Festival evaluation. *International Journal of Hospitality Management*, 81, 193–204. <https://doi.org/https://doi.org/10.1016/j.ijhm.2019.04.013>

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