

# The impact of place attachment and ecological behavior on the consumer resistance toward change



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## ABSTRACT

Place attachment has been considered in many disciplines such as leisure sciences or environmental psychology and through many approaches. However, little has been done on the relationship between the consumer and the place of service. In this context and based on recent findings in human attachment literature and especially place attachment theory, this research offers a conceptual framework explaining the process by which consumer resistance emerges from emotional and social bonds (objective vs subjective, internal, and external connections). This study examines how Place Attachment leads individuals to resist consumption in touristic places that could introduce changes in places in which they are born, live or act. This research aims to clarify the concept of place attachment by identifying its main dimensions and providing a better understanding of the concept of resistance toward change. We argue that attachment-resistance links have received little interest in the marketing literature. Empirically, qualitative research was carried out using in-depth interviews and ethnography, followed by a quantitative study conducted in two Tunisian regions namely Kelibia (North East) and El Djerid (South West) to highlight the behavior of consumers identified as "place attached" acting save nature and place environment. Our results show that the three sub-dimensions of place attachment-place dependence, place identity, and place affect - are significantly associated with ecological behavior. So attachment to places is an important antecedent of pro-environmental behaviors and attitudes. Our findings offer some insights for both academicians and practitioners operating in the field of tourism projects to better understand the behavior of local consumers and visitors to these places.

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## 1. Introduction

The Marketing philosophy is always conceived as a way of maximizing sales by pushing the consumer to consume more and more products. However, reconciling sustainable development and marketing brings about a change in patterns of consumption that aims to ensure individual and collective well-being in economic, social, and ecological terms.

Cherfi (2014) defined these different forms of marketing, namely sustainable, societal and ethical marketing. Sustainable marketing is "a form of reconciling progress in marketing and sales with the

preservation and respect for the environment." Societal marketing is "getting a message across to a group of people who promote social change, for the common good." And finally, ethical marketing consists of "getting across an ethical message by introducing moral principles through a non-market cause, with the aim of creating a positive effect between consumers and the brand or product."

We should note that sustainable marketing is based on both "sustainable development" and "corporate social responsibility (CSR)." Any company must adapt to the regulatory framework and pressure from civil society by avoiding illegal practices linked to environmental degradation, renewing their marketing approach, and creating offers that correspond to societal challenges. Consumer pressure is proving a good way to push companies to engage in sustainable development by reducing social and ecological inequalities; they are more and more concerned with business practices. The latter must be congruent with its values

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otherwise they would face resistance through rejection or opposition. Consumers can also, sanction deceptive commercial practices, boycott, as well as prefer companies or brands sensitive to environmental issues.

In this context, among the major problems that can be encountered, we can cite "consumer resistance to change in places of life." In fact, initiating a tourism project is a rather complicated decision because a change must be imposed on the existing organization. Therefore, the project must be developed by taking into account the different stakeholders and understanding the concept of resistance to change which is inevitable for each new project, thus convincing individuals of its benefits so that it is understood and accepted by all.

## 2. Theoretical background

This study starts by developing a theoretical conceptualization of Place attachment, Ecological behavior, and consumer resistance.

### 2.1. Place Attachment

The attachment theory developed by Bowlby (1988) emphasizes the importance of intimate affective bonds as a fundamental characteristic of human beings.

Sociology literature states that attachment doesn't occur necessarily with persons (Mende and Bolton, 2011). Thus, people can form bonds of attachment with objects in possession (e.g., teddy bears or blankets) that could provide them with an object of attachment when people are inaccessible.

Attachment literature has been more developed in the fields of Environmental Psychology and Human Geography (Boğaç, 2009; Brown et al., 2003; Chow and Healey, 2008; Devine-Wright and Howes 2010; Droseltis and Vignoles, 2010; Fried, 2000; Hernández et al., 2007; Hidalgo and Hernandez, 2001; Knez, 2005; Korpela et al., 2009; Kyle et al., 2004; Lewicka, 2011; Mannarini et al., 2006; Manzo, 2005; Mazumdar and Mazumdar, 2004; Proshansky, 1983; Rollero and De Piccoli, 2010).

Those researchers have particularly studied meanings that people confer to places in general, or to residential places (for example, neighborhoods or homes), the relationships between people and places (Hernández et al., 2007), or the associations between people and their residential environment.

Place Attachment has been also studied in many other disciplines and fields such as sociology, anthropology, architecture, consumption studies, landscape architecture, urban planning, psychology, and even medicine. Each discipline explores the attachment concept in a different way. For example, sociology, anthropology, and community psychology deal primarily with social connections in residential locations and their consequences, while wilderness studies and natural resource management emphasize the attachment of people to save nature and the environment.

In the marketing literature, studies on Place Attachment have started to be developed in the last decade. However, attachment has only been highlighted recently to explain the relationship between consumers and products or brands (Lacoeuilhe, 2000; Park et al., 2006; Thomson et al., 2005).

Attachment can take many forms: interpersonal attachment, attachment to possessions, attachment to brands, and more recently attachment to places or territories, and can result in the existence of affective or emotional connections (Debenedetti, 2007).

The attachment of humans to their territories has received little empirical attention. Considering territory as a brand has been issued in order to point out the attachment of both residents and visitors to places, to create levers of differentiation, and to generate other sources of attractiveness to territories.

Several criteria that can promote human attachment to his territory can be stated as follows:

- Subjective connections (bonds): They concern human feelings and can be related to family roots, childhood, memories, key moments of a person's history, and shared links with others (family, friends, and meetings in general).
- Objective connections are related to the characteristics of the territory, namely cultural specificities, an attractive climate and geography, special commodities (infrastructure, transport, cultural and recreational activities), a natural and historical heritage, gastronomy, etc. It's all about fashion and the quality of life offered by the territory.
- External connections give back an image of the territory to its inhabitants and embrace the place's notoriety and reputation and the way it is perceived beyond the borders.
- Internal connections refer to the sense of place such as feeling more or less strong when living an experience in a territory.

#### 2.1.1. The dimensions of place attachment

**Place identity:** In the field of environmental psychology, the concept of place identity was introduced by Proshansky (1983) and it is defined as a sub-dimension of self-identity. It reflects the physical world in which the individual lives. Thus, the authors focus on two main questions. The first is that the development of self-identity is not based only on individual, interpersonal and social processes, but also extends to the physical environment, which is a fundamental component of personal identity. The second issue concerns the idea that the Place identity changes as life cycle stages progress, due to the changes made in the physical and social environment.

**Place Dependence:** Stokols and Shumaker (1981) considered place dependence as a form of attachment associated with the potential of a particular place to meet the needs and goals of an

individual and the assessment of the current situation in relation to others. Therefore, Place dependence is a notion that reflects functional attachment as a set of characteristics and conditions provided by the place to support specific goals or activities desired to meet individual needs (Williams et al., 1992). This functional attachment can be established with any location supporting highly valued goals or activities.

Place effect is conceptualized as an affective dimension. In his research on attachment to commercial places, Debenedetti (2007) noted that psychological comfort, the feelings of well-being and freedom felt by the individual in the place, significantly impact the Place attachment. People are more attached to places when their sense of self-worth is more important (Droseltis and Vignoles, 2010). Hammitt et al. (2006) asserted that the feeling of belonging to a place can reinforce the attachment of humans.

Social bonds: Researchers have shown that Place attachment is often linked to moments shared by people with a close environment (such as family, friends, etc.), as well as activities and experiences shared with certain people. The place can be a place of residence, a place of leisure, and a commercial place. However, the emotional ties created with these people lead to emotional bonds towards the place where they can meet social connections with people met in some places give a sense of effect to these places. Social relationships have an important influence on the attachment of individuals to their places of residence giving a sense of effect to those places (Hidalgo and Hernandez, 2001; Kyle et al., 2004; Rollero and De Piccoli, 2010).

## 2.2. Place attachment and the ecological behavior

Researchers have adopted various terms to describe Pro-environmental behavior (Sudbury-Riley et al., 2015; Lee et al., 2013; Zaiem, 2005).

In the marketing literature, Gianneloni (1998) reported a synthesis of behaviors related to environmental protection. This behavior has been defined as an individual or collective action to deal with environmental problems (Lee et al., 2013).

Pro-environmental behavior is also defined as a behavior that prompts people to engage in individual or collective actions that minimize any negative impact on the natural or built environment.

Lee et al. (2013) indicated that when a tourist exhibits ecological behavior, he is more likely to take measures to attenuate negative environmental impacts either at home, at work, or at a tourist destination.

According to Stockdale and Barker (2009), people prefer to frequent certain places more than others. Pro-environment sustainable practices undertaken in places such as national parks, and historical or archeological sites can be improved by encouraging visitors to respect the environment. Lee (2011) described environmentally friendly behavior as a "set of actions of individuals that advocate the

sustainable use of natural resources, which can be achieved if users behave in an environmentally friendly manner."

In the literature on Place attachment and pro-environmental behaviors, numerous studies have shown significant associations between these two constructs in different contexts and situations (Devine-Wright and Howes, 2010). However, some other studies have suggested that higher levels of Place attachment are associated with lower intentions to engage in environmentally friendly behaviors. Place attachment has been also significantly associated with behaviors such as volunteering and environmental conservation volunteering (Tonge et al., 2015; Lee et al., 2013). However, despite this big attention given to the two concepts of attachment to place and environmentally-friendly behavioral intentions, the existing literature does not make it possible to clearly determine the strength and the direction of this relationship. Hence, we make the following hypothesis:

**H1:** Place Attachment positively influences the ecological behavior of the consumer

## 2.3. Consumer resistance

Several researchers have examined the concept of Resistance (Kleijnen et al., 2009; Mani and Chouk, 2017).

In human sciences, the term resistance has a negative connotation. It represents a pressure issue. Hence, resistance reflects the rejection to obey, opposition, disobedience, rebellion, insubordination, or revolt ... "It means the action by which one tries to escape an action directed against oneself."

In the marketing literature, Penalzoa and Price (1993) were the first to argue the concept of "consumer resistance," using the following definition given by Poster (1992); "The way individuals or groups practice strategies of appropriation in response to structures of domination."

Roux (2007) pointed out four types of resistance: Individual vs. collective, radical vs. reformist, internal vs. external to marketing institutions, against offers vs. against the signs conveyed by firms.

Consumer resistance is often conceptualized as "resistance against a consumer culture" (Penalzoa and Price, 1993). Authors state that very few of these forms of resistance have caught the attention of consumer behavior researchers.

Thus, resistant consumers are agents who oppose it as a well-defined antagonist, such as a brand (e.g., Nike), an organization (e.g., walmartsucks.com), or images, standards, and devices (e.g., Culture Jammers). Consumer resistance acts against a particular antagonist, who represents a system of domination (Penalzoa and Price, 1993).

Consumers can choose their preferred markets. They can also sanction deceptive commercial practices, boycott, as well as prefer companies or brands sensitive to environmental issues.

The concept of resistance is assumed as an adaptive force resulting from a lasting internal or situational conflict reactivated or provoked by non-information, congruent, and likely to generate an attitudinal and/or behavioral response in opposition.

### 2.3.1. Resistance toward change

Resistance towards change is defined as the implicit or explicit expression of defensive reactions towards the intention to change. Indeed, it is the individual or collective attitude, conscious or unconscious, which manifests itself as soon as the idea of a transformation is evoked. It arises from the loss of the known. The unknown and the uncertainty create fears in the consciousness of consumers, which can be caused by change. Scott and Jaffe (1989), defined resistance as the loss of what was acquired and of the individual's landmarks such as loss of security, loss of identity, loss of utility, of his social relations, and loss of territory. In addition, the ecological problems caused by human activity have been of major concern to the various stakeholders (the state, companies, civil society, consumers, etc.) who have become increasingly aware of the seriousness of the situation during the depletion of natural resources and environmental degradation.

It is important to preserve the environment for future generations. To this end, the concept of sustainable development was a key variable for companies to get involved and be socially responsible. This concept is more firmly established in the minds of consumers who prefer companies with a real ethic, hence the importance of "sustainable marketing."

Conducting research on British and European opinions towards Place attachment, Devine-Wright and Howes (2010) and Devine-Wright (2011) revealed a high level of public support for renewable energy. However, in reality, such projects are often delayed or even aborted because of local opposition. This type of opposition is named NIMBYism (Not in My Back Yard), NIMBYism refers to "the protectionist attitudes and oppositional tactics adopted by community groups facing unwanted projects in their neighborhood." Scott and Jaffe (1989) explained that this resistance is due to the fear of losing what is acquired. We can state the following hypothesis:

**H2:** Place Attachment has a positive impact on Consumer resistance toward change

**H3:** Ecological behavior has a positive impact on Consumer resistance toward Place change

### 2.3.2. Resistance towards consumption in touristic places

A deep analysis of the marketing literature allowed us to know the different forms of resistance according to their degrees. Following the hierarchical model proposed by Kleijnen et al.

(2009), resistance consists of three forms: rejection (the most extreme form of resistance), postponement, and opposition. According to Mani and Chouk (2017), "resistance can be directed against (1) a new product, (2) a new service based on technological innovation, or (3) a new market." According to the marketing literature, consumer resistance takes several passive and active forms, which can run along a continuum from avoidance to boycott (Smaoui and Smiri, 2016).

The concept of anti-consumption requires action against consumption for reasons related to consumer values and ethics. Consumer boycotts are a form of anti-consumption behavior, where boycotters are market activists who renounce to consume certain products and services for environmental, political, ethical, or social reasons. Going further, anti-consumption is characterized by a negative attitude towards the market and consumption in general, boycotters are narrower in scope and target specific organizations. So anti-consumption and boycotts are different forms of consumer resistance to the market. Consumers may resist change if they are not sufficiently informed of the reasons for this change, if they do not perceive a particular benefit, or if they are strongly attached to the substituted brand. A netnographic study conducted by Smaoui and Smiri (2016) on the social network Facebook shows the participation of individuals in a boycott movement following a rebranding action of the "Tunisiana" to "Ooredoo" (the new brand). This movement was motivated by the strong attachment of these people to the original brand "Tunisiana." Hence, we formulate the following hypothesis:

**H4:** Place attachment has a positive impact on the resistance towards consumption in touristic locations that change the nature of places.

**H5:** Ecological behavior has a positive impact on the resistance towards consumption in touristic locations that change the nature of places.

## 3. Methodology

### 3.1. The measurements

As observed in Table 1, we choose the measurement scales because of their suitability for our research context. The measurement used in our work was inspired by international contexts; except for the "ecological behavior" scale that was constructed in the Tunisian context. Thus, the items measuring these scales were translated using the "parallel blind" translation technique. According to Urien (2000), this technique is preferable to other methods for translating content from the source language to the target language, especially when it comes to measurement scales validated in another language. To do this, we used two bilingual English-French translators. Finally, we have chosen the most suitable version for the original version. In order to evaluate the different variables of our model, we

chose the Likert scale ranging from 1 to 5 with (1) Strongly disagree, (2) Disagree, (3) Neutral, (4) Agree, (5) Agree strongly.

**Table 1:** Place attachment

Items	Reference authors
<b>Measurement scale used for Place Dependence</b>	
1-For the leisure activities that I love, I couldn't imagine anything better than the living environment on the beaches of Kélibia.	Ramkissoon et al. (2013)
2-For the leisure activities that I like to practice, the beaches of Kelibia represent the best place.	
3-I like to visit the beaches of Kelibia more than any other place.	
<b>Measurement scale used for the place identity</b>	
4-I identify strongly with this place.	Ramkissoon et al. (2013)
5-I feel that this place is part of me.	
6-Visiting this place reflects my personality.	
<b>Measurement scale used for Place Affect</b>	
7-I am very attached to this place.	Ramkissoon et al. (2013)
8-I feel a strong sense of belonging to this place.	
9-This place means a lot to me	
<b>Measurement scale used to measure social Bonds</b>	
10-Many of my friends/family prefer this place to other places.	Ramkissoon et al. (2013)
11-If I had to stop visiting (or be far from) this place, I would lose contact with a number of friends.	
12-My friends and family would be disappointed if I started to visit other places.	
<b>Scale used to measure the ecological behavior of consumers</b>	
1-I am ready to contribute to actions to protect nature and the environment	Zaiem (2005)
2-If we set up waste sorting bins near my home, I would sort my waste	
3-I would be ready to pay 5% more tax to help the government to better control pollution.	
4-Knowing that paper and cardboard are biodegradable, I accept that my purchased products are packaged in cardboard or paper and not in plastic	
5-If I have a choice, I buy products with recyclable packaging	
6-I would gladly give a day's pay to a foundation or association that helps improve the environment.	
7-I tend to buy environmentally friendly products	
8-I agree to pay a little more for a green (ecological) product	
<b>Measurement scale adopted for resistance to changing a location</b>	
1-I do not approve of the change (of the beaches of Kélibia/El Jerid) by the establishment of new restaurants, cafes and hotels.	Zaiem (2005)
2-I have a bad opinion about this change of location (the beaches of Kélibia/El Jerid) by the establishment of new restaurants, cafes and hotels.	
<b>Scale for measuring resistance to consumption and to visits</b>	
1-I am likely to oppose visiting the restaurants, cafes and hotels on the beaches of Kelibia.	Mani and Chouk (2017) Kleijnen et al. (2009)
2-I am likely to oppose speeches that express the advantages of restaurants, cafes and hotels located on the beaches of Kelibia/El Jerid.	
3- The restaurants, cafes and hotels located on the beaches of Kélibia / El Jerid are not for me.	

## 3.2. Data collection

The questionnaire was pretested, in two languages, Arabic and French, with a sample of 30 respondents (19 women and 11 men) for the Kélibia region; and 20 respondents (12 men and 8 women) for the El Jerid region. This pre-test was administered face to face in order to improve certain items. This pre-test revealed that some items were not clear and need some improvement in order to get the final version. Regarding the scale of emotions felt we have added some proposals that the respondents do not find at the level of the proposed alternatives example "I visit the region several times a year." Respondents noticed a certain similarity and repetition at the item level, especially for questions 7 and 9.

### 3.2.1. The sample distribution

The selection of participants was made by the technique of convenience. The final sample consists of 404 participants divided between the Kelibia region and the El Jerid region. In our sample, we obtained a balanced distribution between men and women with 48% men and 52% women. On the other hand, we found that the dominant population

is rather young belonging to the interval] 25-35 years]. These figures are considered quite good since Tunisia welcomes young tourists outside the summer season. As for the professional status of respondents, the majority of respondents are senior and middle managers. Regarding the place of residence, we have 47% of the resident population against 53% of non-residents. However, we find that a large part of the respondents is immigrants either abroad or in the capital.

For the Kélibia region, we obtained an almost equal distribution between men and women with 57% men and 43% women. Moreover, the dominant population is young. As to the professional status of the respondents and their levels of education, the majority of respondents are executives at a university level. Regarding the place of residence, we have 39% of the resident population against 61% of non-residents. Therefore, a large part of the respondents lives either abroad or in the capital or other Tunisian city. For the region of El Jerid, we obtained an almost equal distribution between men and women with 54% men and 46% women; as well as for the age of the respondents. As to the professional status of respondents and their educational levels, the sample varies between executives, students, and project owners. The

dominant level of education is university level followed by secondary level. Regarding the place of residence, we have 58% of the resident population against 42% of non-residents.

### 3.2.2. The questionnaire

First, we used marketing experts before placing the questionnaire out to the public to verify it in terms of structure and content. Since we are working on two regions (Kelibia and El Jerid) and two different targets, we have established two different questionnaires (each questionnaire is specified for a region and a target) while keeping the same items. Given the heterogeneity of the profile of the interviewees, we chose to administer the two

questionnaires (in 2017) in two ways: Face to face and online through emails and on the social network Facebook. Regarding the administration of online questionnaires, we created an application that would on the one hand allow the target to respond easily and quickly and on the other hand, it allowed us to follow the responses instantly and provide the results in real-time. Thus, the questionnaire was tested with 15 people representing the target in order to check its clarity and understanding with the respondents. In order to reach a maximum number of the target, the questionnaires were written in two languages: Arabic and French. The response time was between 5 and 20 minutes. The research model and Hypotheses are presented in Fig. 1.

## Place Attachment

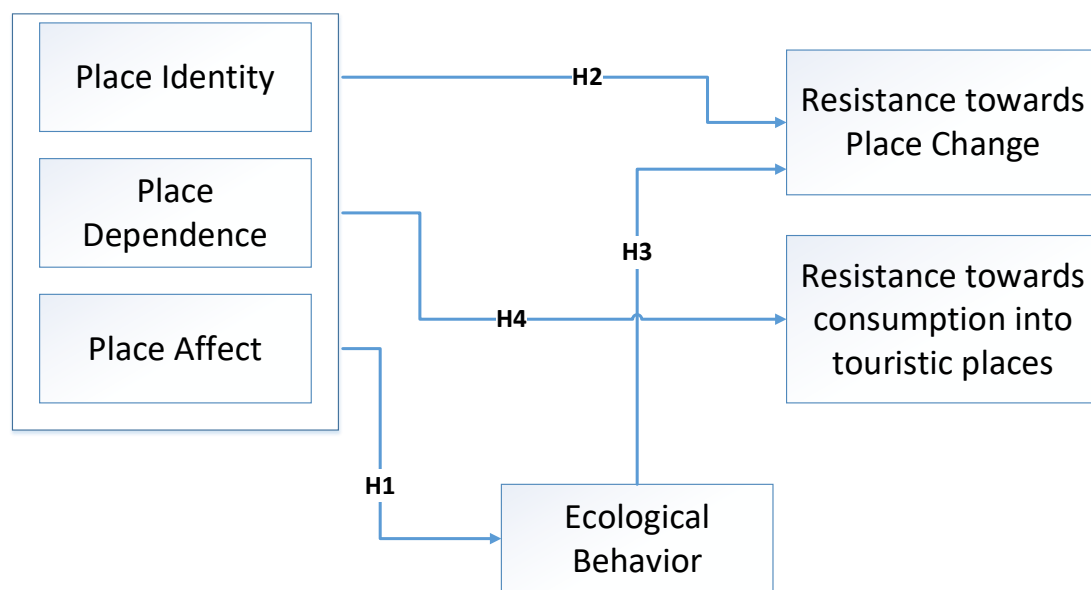


Fig. 1: Study model

## 4. Exploratory analyzes

### 4.1. Purification of the "place attachment" scale

Table 2 shows the purification and reliability of the "Attachment instead" scale.

### 4.2. Purification of the "ecological behavior" scale

Table 3 shows the purification and reliability of the "ecological behavior" scale.

The KMO index is 0.853 therefore it is satisfactory. The Bartlett sphericity test is statistically significant since the probability of getting the test value is less than 5% and therefore the correlations are different from 0. The extraction varies between 0.117 and 0.656, this means that we must eliminate the items which have a poor quality of representation and which are lower than 0.5. At this level, we will eliminate item 2 "If we install waste sorting bins near my home, I would sort my waste," and item 3 "I would be ready to pay 5% tax

in more to help the government better control pollution"; and item 6 "I would gladly give a day's pay to a foundation or association that helps improve the environment." So we have retained 5 items.

The total explained variance results show that a single component has a cumulative percentage of 50.253% greater than 50%. However, by explaining 50.253% of the variance, it helps to summarize the information. The verification of the reliability of the scale of the ecological behavior dimension by Cronbach's Alpha gives a value equal to  $\alpha=0.868$ . This value is considered satisfactory.

### 4.3. Purification of the "resistance to change" scale

Table 4 shows the purification and reliability of the "Resistance to change" scale.

The KMO index is 0.500 therefore it is not satisfactory. On the other hand, the Bartlett sphericity test is statistically significant since the

probability of obtaining the test value is less than 5% and therefore the correlations are different from 0. The extraction is equal to 802, this means a good quality of representation which is greater than 0.5 in all cases. So we will retain the two items. The total explained variance results show that a single component has a cumulative percentage of 80.176% greater than 50%. However, by explaining 80.176% of the variance, it helps to summarize the information. Checking the reliability of the

dimension scale Resistance to change of a location by Cronbach's alpha, gives a value equal to  $\alpha=0.753$ . This value is considered satisfactory.

#### 4.4. Purification of the "resistance to visitation and consumption" scale

Table 5 shows the purification and reliability of the "Resistance to visitation and consumption" scale.

**Table 2:** Purification and reliability of the "Place Attachment" scale

Items	Axe 1	Axe 2	Axe 3	Axe 4	Inertie
1-I am serene				0.805	0.781
2-It's warm				0.538	0.665
3-I am stressed		0.736			0.578
4-I'm happy	0.742				0.672
5-I had the feeling of being locked up		0.816			0.686
6-I feel peaceful				0.538	0.518
7-I have a pleasant feeling	0.771				0.718
8-I feel happy	0.869				0.814
9-We feel oppressed		0.803			0.699
10-I feel pleasure	0.826				0.749
11-We're cool	0.845				0.769
12-I feel transported	0.527				0.528
13-We feel crushed		0.804			0.650
14-We are zen			0.665		0.600
15-I am irritable		0.817			0.711
16-I feel imprisoned		0.824			0.684
17-I am enthusiastic			0.751		0.708
18-I feel like I'm floating			0.822		0.781
19-We feel in harmony			0.579		0.589
20-I'm pissed off		0.837			0.724
21-I dream					0.461
KMO			0.915		
Bartlett sphericity Test			0.000		
Inertia			67.070%		
(Cronbach Alpha)	0.908	0.912	0.817	0.551	
Items	6	7	4	0	

**Table 3:** Purification and reliability of the "Ecological behavior" scale

Items	Inertie	Axe 1
1-I am ready to contribute to actions to protect nature and the environment	0.573	0.757
2-If we set up waste sorting bins near my home, I would sort my waste	0.117	0.342
3-I would be ready to pay 5% more tax to help the government to better control pollution.	0.352	0.593
4-Knowing that paper and cardboard are biodegradable, I accept that my purchased products are packaged in cardboard or paper and not in plastic	0.656	0.810
5-If I have a choice, I buy products with recyclable packaging	0.653	0.808
6-I would gladly give a day's pay to a foundation or association that helps improve the environment.	0.463	0.681
7-I tend to buy environmentally friendly products	0.638	0.799
8-I agree to pay a little more for a green (ecological) product	0.569	0.754
KMO		0.853
Bartlett sphericity Test		0.000
Inertia		50.253%
(Cronbach Alpha)		0.868
Items		5

**Table 4:** Purification and reliability of the "Resistance to change" scale

Items	Inertia	Axe 1
1-I do not approve of the change (of the beaches of Kélibia / El Jerid) by the establishment of new restaurants, cafes and hotels.	0.802	0.895
2-I have a bad opinion about this change of location (the beaches of Kélibia / El Jerid) by the establishment of new restaurants, cafes and hotels.	0.802	0.895
KMO		0.500
Bartlett sphericity Test		0.000
Inertia		80.176%
(Cronbach Alpha)		0.753
Items		2

The KMO index is 0.684 therefore it is satisfactory. The Bartlett sphericity test is statistically significant since the probability of obtaining the test value is less than 5% and therefore the correlations are different from 0. The extraction

varies between 0.633 and 0.814, this means a good quality of representation which is superior to 0.5 in all cases. So we will retain the three items. The results of the total explained variance show that a single component has a cumulative percentage of

75.158% greater than 50%. However, by explaining 75.158% of the variance, it helps to summarize the information. The verification of the reliability of the

dimension scale Resistance to visit and consumption by Cronbach's Alpha gives a value equal to  $\alpha=0.831$ . This value is considered satisfactory.

**Table 5:** Purification and reliability of the "Resistance to consumption" scale.

Items	Inertia	Axe 1
1-I do not approve of the change (of the beaches of Kélibia/El Jerid) by the establishment of new restaurants, cafes and hotels.	0.802	0.895
2-I have a bad opinion about this change of location (the beaches of Kélibia/Eql Jerid) by the establishment of new restaurants, cafes and hotels.	0.802	0.895
KMO		0.500
Bartlett sphericity Test		0.000
Inertia		80.176%
(Cronbach Alpha)		0.753
Items		2

## 5. Results of confirmatory research analyzes

Before moving on to confirmatory factor analysis (CFA), we used the SmartPLS 3 software to specify the structural model by schematizing the latent variables and the items that reflect these variables as well as the various existing relationships.

### 5.1. Reliability and convergent validity of constructs

Based on Table 6, all variables are reliable since they exceed 0.7. Thus, the convergent validity is checked since it is greater than 0.5 for all dimensions.

**Table 6:** Reliability and convergent validity of constructs

Items	Number of items	Composite Reliability	Average Variance Extracted (AVE)
Attachment to the place	8	0.936	0.652
Place Identity	6	0.954	0.776
Place Dependence	2	0.895	0.809
Place Affect	3	0.903	0.757
Ecological behavior	5	0.906	0.659
Resistance towards Place Change	2	0.887	0.798
Resistance towards consumption into touristic places	3	0.793	0.576

By following the approach of Fornelle and Larcker (1981), the discriminant validity aims to verify that the items measuring the different variables are weakly correlated. For discriminant validity to be verified, the extracted mean-variance (AVE) of each dimension must be greater than the squared correlations calculated between these constructs. In this context, the SMART PLS 3.0 software provides us with Table 6 highlighting the correlation between the constructs taken two by two and diagonally the square root of the AVE of each construct.

### 5.2. The structural model

The structural model is evaluated by analyzing the multiple R<sup>2</sup>s and the Stone-Geisser coefficient Q<sup>2</sup>. According to Croutsche (2002), if the R<sup>2</sup> is greater than 0.1 then the model is significant. The R<sup>2</sup> makes it possible to understand the contribution of each explanatory variable to the prediction of the dependent variable.

The quality of each structural equation can be assessed by the Stone-Geisser coefficient Q<sup>2</sup>, also called the cross-validation redundancy index. If Q<sup>2</sup> is positive, then the model has predictive validity. As Croutsche (2002) pointed out "we can consider this coefficient to be acceptable when it is greater than 0." Table 7 shows the overall quality of the structural model. Fig. 2 shows the structural model.

As mentioned in Table 7 and regarding the results obtained, all the explained variables of the model showed an R<sup>2</sup>>0.1 and a Q<sup>2</sup>>0. We can therefore conclude that the quality of the overall model is acceptable.

### 5.3. Research hypotheses test

Using SMART PLS 3.0 software, we test our research hypotheses through the specified structural model that incorporates all the links between the variables we want to test. We use the Student's T index which must be greater than 1.96 for a significance level of 5% to confirm the research hypothesis.

#### 5.3.1. Relationships between variables

First of all, it should be noted that the two dimensions of the attachment to the place, namely the dependence on the place and the affected identity to the place, are significant so we can see that these two dimensions clearly reflect the attachment to the place.

Regarding the test of the propositions, the results presented in Table 8 allow us to affirm that the effect of lived memories linked to the place on the attachment to the place is not significant ( $t=0.471$ ,  $p>0.05$ ) therefore hypothesis H1 is invalidated. Whereas attachment to place has a positive and

significant effect on the ecological behavior of the consumer ( $t=9.326$ ,  $p<0.005$ ). Hence the H2

hypothesis is confirmed.

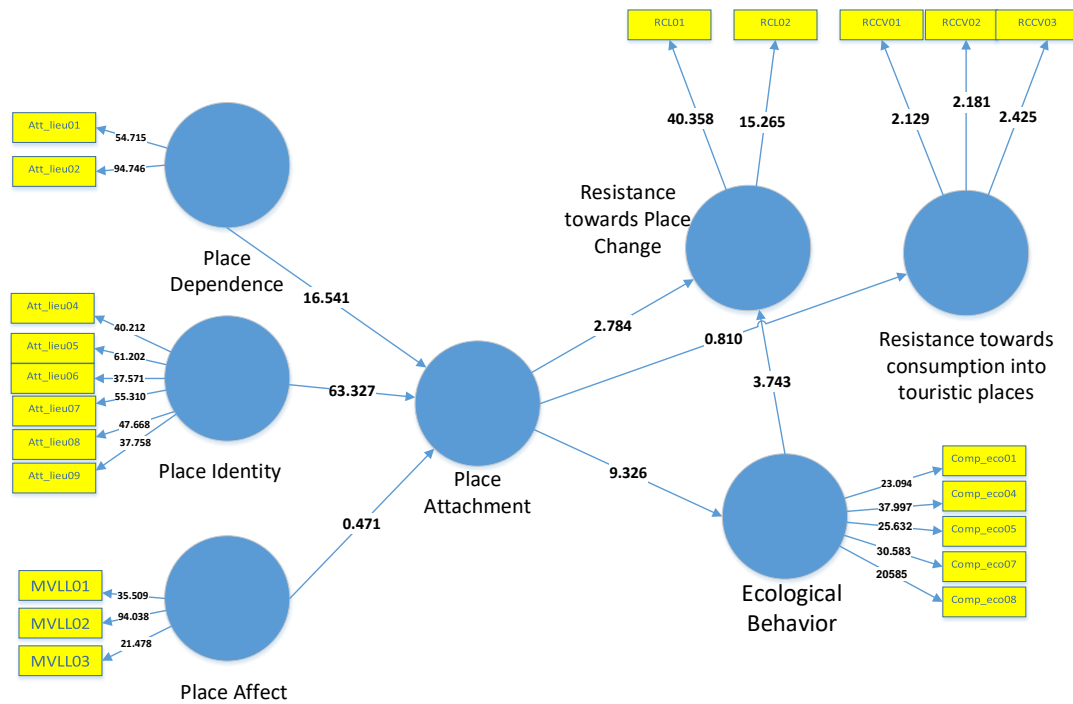


Fig. 2: The structural model

Table 7: Quality of the model

Items	R2	Adjusted R2	Q <sup>2</sup> (=1-SSE/SSO)
Attachment to the place	1.000	1.000	0.606
Ecological behavior	0.263	0.262	0.158
Resistance towards Place Change	1.000	1.000	0.0337
Resistance towards consumption into touristic places	0.094	0.087	0.059
Ecological behavior	0.013	0.010	-0.001

Regarding the dimensions of the emotions felt, which three in number are, we have observed the existence of two significant dimensions reflecting the positive emotions (The emotions of joy and the emotions of stimulation). The results invalidated hypothesis H3 ( $t=1.509$ ,  $p>0.05$ ).

Thus, attachment to the place has no effect on resistance to change of place ( $t=2.784$ ,  $p<0.05$ ) and

no effect on resistance to visitation and consumption ( $t=0.810$ ,  $p>0.05$ ) hence the hypotheses H4 and H5 are invalidated. Thus, ecological behavior has a positive impact on the resistance to change of the place ( $t=3.743$ ,  $p<0.005$ ); hypothesis H6 is therefore confirmed.

Table 8 presents the validity of the direct effects between the variables.

Table 8: Relationship tests

	Independent variables	Dependent variables	Student T index	P Values
H1	Attachment to the place	Ecological behavior	9.326	0.000
H2	Attachment to the place	Resistance towards Place Change	2.784	0.006
H3	Attachment to the place	Resistance towards consumption in touristic places	0.810	0.418
H4	Ecological behavior	Resistance towards Place Change	3.743	0.000

From Table 8, we can conclude that the sub-dimensions "Dependence at the place" and "Identity Affect at the place" are significant therefore they significantly represent the dimension "Attachment at the place."

## 6. Discussion and conclusion

The results obtained are discussed in more detail in this section. We analyze the attachment to the place of life and its relation with the resistance

behavior of the consumer as well as the relation between the different additional variables with the main concepts of the study.

### The attachment to the place

Researchers have recognized that attachment to place is a multidimensional concept (Hidalgo and Hernandez, 2001; Kyle et al., 2004; Ramkissoon et al., 2013). It is represented by the following four sub-dimensions (place dependence, place identity, place affect, and social ties). The results of our research generally agree with the literature (Kyle et al., 2004;

Ramkissooon et al., 2013) by confirming three dimensions of attachment to place (dependence on place, identity of place, and effect on place). On the other hand, the "social ties" dimension was excluded.

### ***The effect of attachment to the place of life on ecological behavior***

The results obtained reveal that attachment to the place has a direct and significant effect on the ecological behavior of the consumer H2 ( $t=9.326$  and  $P<0.001$ ). These results join numerous studies showing the significant associations between the two constructs (Tonge et al., 2015; Devine-Wright and Howes, 2010; Lee et al., 2013). This also supports the theories of the first epoch, suggesting that the experience of a place leads to attachment which leads to intentions to protect the place. In accordance with the literature (Ramkissooon et al., 2013), the study revealed more details on the relationships between attachment to place and professional behaviors environmental. This is explained by the motivation of people from the two regions studied to protect the environment and nature. They are strongly attached to the natural resources of their territories which are considered rare resources which symbolize each region such as the silvery sand and the turquoise and transparent sea in Kélibia and the palm trees of el Jerid which represent the first recipes of Tunisia.

The results show that the three sub-dimensions of place attachment-place dependence, place identity, and place affect-are significantly associated with ecological behavior. So attachment to places is an important antecedent of pro-environmental behaviors and attitudes (Tonge et al., 2015; Lee et al., 2013). In addition, attachment to place was significantly associated with environmental volunteering as revealed by the qualitative study. The inhabitants of the Kelibia region are calling for campaigns to collect the waste scattered on the beaches.

### ***The effect of attachment to place on resistance to change of place of life***

In view of the result, the respondents attached to their places of life have a tendency more than the others to resist the change of these places which will lead to a disturbance. In her study of attachment to place, Devine-wright (2011) emphasized the consequences of changing places on individuals, processes, and places. Moreover, the work dealing with this subject is oriented in the negative direction since it is about a disturbance. Studies show that physical changes negatively affect symbolic meanings related to the place.

The results obtained show that the identity of the place and the effect on the place have a significant impact on the resistance to change of a place H4 ( $t=4.964$ ;  $P<0.001$ ). This is in line with the study by Kyle et al. (2004) who found that people who have a high identification score instead do not accept changes in the place. Those from Kelibia are more resistant than those from El Jerid to changes in their living environment. This resistance to change stems

from an attachment to the identity of the place. Depending on the people from this region, you have to keep the natural aspect that identifies the place accessible to everyone (the sea, the beaches, the rocks, etc.). On the other hand, for the region of El Jerid, we can explain the acceptability of the projects by the lack of development in this region. It should be noted that the number of unemployed is high in this region and tourist activity is not well developed given the geographical location and climatic conditions of the region in summer. We have noticed that the natives of el Jerid are proud to have this unique nature namely the Sahara and find that it is necessary to take advantage of these geographical conditions to develop Saharan tourism and attract more people during the other seasons of the year.

### ***The effect of attachment place on resistance to consumption and visitation***

The concept of anti-consumption requires action against consumption for reasons related to consumer values and ethics. Consumer boycotts are a form of anti-consumer behavior, where boycotters are market activists who renounce the consumption of certain products and services for environmental, political, ethical, or social reasons. Going further, anti-consumption is characterized by a negative attitude towards the market and consumption in general, boycotters are narrower in scope and target specific organizations. Therefore, anti-consumption and boycotts are forms of consumer resistance to the market. Consumers may resist change if they are not sufficiently informed of the reasons for this change, if they do not perceive any particular benefit, or if they are strongly attached to the substituted brand. A nethnographic study conducted by Smaoui and Smiri (2016) on the social network Facebook shows the participation of individuals in a boycott movement following a rebranding operation of the Tunisiana brand into the Ooredoo brand. This movement was motivated by the strong attachment of these people to the original brand "Tunisiana." Literature and qualitative studies have shown the positive impact of attachment to place on resistance to use.

## **Compliance with ethical standards**

## **Conflict of interest**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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