Omolola Oluwakemi Ajayi / Tembi Maloney Tichaawa

Environmental Attitude, Motivation, and Place Attachment in a Wildlife Park

Abstract

Despite the significance of motivation in understanding the behavior of tourists, its interconnectedness to environmental attitude and place attachment has been scarcely studied in nature-based tourism destinations, especially outside the western and Anglo western context. This study examined these constructs as individual variables as well as the inter-relationships that exist between them in the context of a wildlife park. Using a convenience sampling technique, 372 visitors were surveyed. It was revealed that visitors displayed more anthropocentric beliefs than ecologically favorable concerns. Their motivations centered on experiencing and appreciating nature, recreation, relaxation, and education which are some of the core goals of the establishment of such areas as wildlife parks. The levels of attachment to the destination were however mild. The results further revealed significant associations between the constructs. The partial mediating role of motivation in the relationship between environmental attitude and place attachment was also reported. Appropriate conclusions were drawn, and managerial implications were discussed.

Keywords: environmental attitude, motivation, nature-based tourism, place attachment, wildlife park

1. Introduction

Tourists' behavior in nature-based tourism attraction destinations has received significant scholarly attention in recent times (see Ajayi et al., 2018; Cheung & Fok, 2013; Lime & Costen, 2011). This is in a bid to avoid the 'sin of homogenization' as noted by Pearce (2005) which denotes treating all tourists irrespective of typologies as members of the same population. Nature-based tourism is characterized by decisive travels to natural places and attractions such as national parks, zoological gardens/parks, wildlife parks, game reserves, beaches, mountains and hills, and springs. Emphasis is generally placed upon sustainability and conservation (Honey, 2008; Alarape et al., 2015) in addition to the recreational and educational roles that such places play. Sustainability is largely dependent on tourists' attitudes and behavior in such settings as well as the actions of government and managerial bodies (Törn et al., 2009).

Attitudes are commonly acknowledged as the extent of a person's favorableness or unfavorableness towards a mental entity (Ajzen & Fishbein, 2000). With a respect to the environment, attitudes denote an emotional disposition expressed through evaluative responses to the natural environment with an iota of favor or disfavor (Milfont & Duckitt, 2010). An attitude that favors the environment is referred to as ecocentrism whilst that which is unfavorable is considered anthropocentrism. Mostafa (2007) noted that the recent pursuit of nature-based tourism research has been enhanced by the paradigm shift of 'living green' with a focus on aligning environmental values with the consumption habits of individuals. Since an individual's attitude to buying is affected by the harmonization of the item's icon to the individual's personal notion (Sirgy, 1982), it is therefore likely that environmental attitude influences the process of destination selection (Formica & Uysal, 2002).

Omolola Oluwakemi Ajayi, PhD, Post-Doctoral Fellow, School of Tourism and Hospitality, College of Business and Economics, University of Johannesburg South Africa; ORCID ID: https://orcid.org/0000-0002-7129-0565

Tembi Maloney Tichaawa, PhD, Corresponding author, Full Professor, School of Tourism and Hospitality, College of Business and Economics, University of Johannesburg South Africa; ORCID ID: https://orcid.org/0000-0002-1913-3730; e-mail: tembit@uj.ac.za

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Motivation seeks to respond to the question 'what stimulates a person to travel?', and is commonly considered as a function of push and pull factors. The push factors are centered on internal drives that encourage tourists to travel while pull factors are external forces that attract tourists to a particular destination (Dann, 1977; Thaothampitak & Weerakit, 2014). Motivation has also been researched extensively in tourism with a focus on the roles it plays. For example, Hsu et al. (2010) established motivation as a mediating variable of attitudes and expectations toward visiting a destination, as well as an intervening factor for visit intention and image (Phillips & Jang, 2007). Additionally, motivation has been widely used as a segmentation tool (Park & Yoon, 2009). Accordingly, not only does motivation determine whether or not consumers will engage in tourism activity, but also when, where, and what type of tourism they will pursue (Pizam & Mansfeld, 1999). According to Hsu et al. (2010), motivation also influences pre-visit and post-visit factors such as attitudes and place attachment.

Place attachment portrays people's emotional affinity to a setting (Hwang et al., 2005). While the origin of place attachment is in psychology, the concept has been adapted over time in recreation studies. Place attachment is a vital social measure of the worth of environmental attractions because it captures personal values and perceptions (Warzecha & Lime, 2001). The dimensions of place attachment include place dependence - a connection with a place's physical and functional attributes (Scannell & Gifford, 2010); place identity - an affinity between a place and one's individuality (Prohansky, 1978); place affect - a psychological linkage with a place (Tuan, 1977) and place social bonding - an affinity with settings that promotes shared connections (Scannell & Gifford, 2010). Acquaintance with a place thus enhances the possibility of defensive acts among persons which may bring about a sense of dedication as well as conscientiousness concerning places to which they are most attached (Walker & Chapman, 2003).

While these behavioral constructs have been studied individually, most studies have been outside the African developing nations' context. Winter (2009) noted that a great deal of the knowledge of tourists' behavior relied on experiential research and conceptualized theories primarily from the Western and Anglowestern points of view. The inter-relationships between these behavioral constructs have however received very limited scholarly attention, especially in the Nigerian environment. The Nigerian nature-based tourism market is expanding, but research targeting the travel behavioral patterns of visitors is still limited which can aid sustainable planning and development (Awaritefe, 2004; Ajayi, 2019). This study sought to contribute to this omission in literature by exploring firstly, these three behavioral constructs (environmental attitude, motivation, and place attachment) as individual variables and secondly, the inter-relationships that exist between them.

2. Literature review

2.1. Environmental attitude

The need to understand the environmental attitudes of visitors in nature-based tourism destinations was borne out of the increasing environmental impacts on destinations such as trampling on vegetation (see Cole & Spildie, 1998), plucking of leaves along trails, littering and pollution (see Ajayi, 2019; Buckley, 2004), and wildlife disturbance (see Chan & Lam, 2002). As such, increased focus has been directed toward conceptual and practical research on attitudes around the environment since the 1990s (Cheung & Fok, 2013). Several dimensions have been employed in previous research to evaluate the attitudes of tourists attitudes toward the environment (Lee & Moscardo, 2005). Of great prominence is the New Environmental Paradigm (NEP) - a scale developed by Dunlap and Van Liere (1978) and subsequently revised in 2000. According to Luo and Deng (2008), the (NEP) is the most frequently used scale of environmental attitudes and is often applied in tourism studies. Three environmental factors are measured by the NEP: ecocrisis, limits to growth, and humans over nature.

NEP recognizes the detrimental impact of human-induced interactions with their surrounding natural landscape (Dunlap et al., 2020). Agreement with the even-numbered items shows anthropocentric beliefs while disagreement indicates a pro-ecological view (ecocentrism: focusing basic ideas on people-environment

association with a respect to principles), and vice versa for the odd-numbered items. It is the opposite of the Dominant Social Paradigm (DSP) which favors economic growth, scientific development, competition, a free market economy, care for the present population without considering the future, exploiting the grow-or-die principle, combining financial and political resources and enduring risks (Kostova et al., 2011).

Cheung and Fok (2013) noted that studies on the environmental attitudes of tourists can enable the provision of market information concerning nature-based tourism products and services, which can enhance practical implications with a regard to the minimization of negative environmental impacts as well as the enhancement of the green consumerism trend. Various studies have been carried out on environmental attitudes globally using the NEP especially for market segmentation and to understand the peculiarity of the visitors. For example, Mehmetoglu (2010) identified four groups of visitors (namely the ecotourists, nature-based tourists, sustainable tourists, and mass tourists) based on their levels of environmental concern in Norway, with the ecotourists constituting the largest group. Another study saw Cheung and Fok (2013) examine the environmental attitudes and motivation of nature-based visitors in protected areas in Hong Kong. The authors identified three groups of visitors based on their environmental attitudes, namely the conservation priority, conservation and development, and leisure rights group, with most visitors falling into the first category who were characterized as being more environmentally conscious and concerned than the other groups. In their study of environmental attitudes of tourists in seven seaside tourist resorts in Istria County, Croatia, Grbac et al. (2013) documented the presence of tourists who mainly held positive environmental values, but recorded mixed results with a regard to anthropocentrism. Ajayi et al. (2018) examined the environmental attitudes of visitors to a biological garden in Nigeria. Their findings revealed that most visitors displayed more anthropocentric beliefs than ecologically inclined attitudes. The foregoing suggests different typologies of nature-based tourists across various terrain, and thus, the need for further research. This is especially true for wildlife parks for which there exists a dearth of empirical research.

2.2. Motivation

There have been various contextual and empirical studies conducted on motivation in various contexts, especially in the Western world (see Crompton, 1979; Oh et al., 1995; Bansal & Eiselt, 2004; Yoon & Uysal, 2005). The abundance of scholarly attention is unsurprising given that tourists' motivations are paramount in driving the tourism market. Information on motivation can enhance the development of product designs, business plans as well as marketing strategies (Cheung & Fok, 2013). According to Catoiu and Teodorescu (2004), motivation has, for a significant time, been considered the only variable that mediates the interface of stimulus and response to consumer behavior. This is best understood in the definition provided by Pearce et al. (1998) that, "the global integrating network of biological and cultural forces which gives value and direction to travel choices, behavior, and experience". The concept of motivation can be classified into two forces which indicate that people travel because they are pushed and pulled to do so by certain factors (Dann, 1977). These factors describe how individuals are nudged intrinsically to make a decision to travel and the way the features of a particular site attract them (Uysal & Hagan, 1993). The idea of the push-pull model is the categorization of tourists' choices about a destination into two categories (Thaothampitak & Weerakit, 2014). The first category considers the factors which push a tourist away - it attempts to model the wide-ranging aspiration to go and be anywhere else, without specifying the specific place. The second category considers that which pulls a tourist to a particular site – it takes into account the tangible characteristics or attributes of a destination that are primarily related to the perceived attractiveness of a destination.

Motivation in a tourism context thus provides answers to the question, 'what stimulates a person to travel?'. In the context of this specific study, motivation is engaged as a function of push and pull factors that drive individuals to embark on travel to nature-based tourism destinations. Mutanga et al. (2017) in their study of tourist motivation in two national parks in Zimbabwe identified the pull factors of the visitors to be "abundance

of wildlife, availability of different animal species, availability of different plant species, wilderness, beautiful landscape, and peaceful/quiet environment" while the push factors were "recreation and knowledge seeking, appreciating wildlife and feeling close to nature". Other studies such as Cheung and Fok (2013), while identifying three groups of tourists by their motives (ie. travel for recreation, travel for novelty, and travel to escape), found that having fun and being entertained were the two most important motivators for visiting Hong Kong's protected areas. The motivational factors identified by Merwe and Sayman (2008) included nature, activities, attractions, nostalgia, novelty, and escape. Amuquandoh's (2017) study in a national park in Ghana revealed four main tourist motivations: adventure, education, escape, and social interaction, and those seeking adventure constituted the majority. Tao et al.'s (2004) study on Asian tourists in a national park in Taiwan showed that learning about nature and participating in recreational activities were the paramount motivators. The study of Awaritefe (2004) on national park tourists in Nigeria revealed that most traveled to the park for self-actualization, education, and recreational reasons. Uysal et al.'s (1994) research on Australian tourists visiting national parks and natural areas in the United States revealed five motivational factors, namely relaxation/hobbies, novelty, enhancement of kinship relations, escape, and prestige.

The foregoing reveals that tourists at various nature-based destinations are guided by a variety of different motives. While some motivational factors are common across several studies, their positioning or level of importance differs and this also varies across different years. Given the divergent results on motivation generally, as well as the scarcity of empirical evidence on wildlife parks in Nigeria, there is, therefore, a need to evaluate the motivations of visitors in this context.

2.3. Place attachment

Place attachment over time has been adapted in tourism recreation studies, most especially in outdoor events like hiking (Kyle et al., 2003) and rafting (Bricker & Kerstetter, 2000). However, it has not attracted as much research attention as travel constructs like the aforementioned motivation. Three branches were identified in the context of place attachment in tourist research. The first branch views place attachment as an independent variable or as an antecedent of tourists' behaviors and attitudes. It focuses on the prediction of visit outcomes based on tourists' place attachment levels (Ramkinssoon et al., 2012), increased satisfaction (Ramkinssoon et al., 2014), and prediction of pro-environment behaviors (Ramkinssoon et al., 2012). The second branch refers to place attachment as a mediator between antecedents and outcomes and analyzes the intervening impact of the place attachment concept, connecting tourists' attitudes in addition to visit outcomes (Prayag & Ryan, 2012; Jin et al., 2020). The third branch perceives place attachment as an outcome by itself and tries to predict place attachment levels by using attitudes as predictors (Gross & Brown, 2008).

Research on place attachment as an independent variable is the least common out of the three approaches. Most studies consider place attachment as a predictor or an antecedent (see Ramkinssoon et al., 2012; Gross & Brown, 2008; Jin et al., 2020). Studies on place attachment as an individual construct have largely been conceptual such as Dwyer et al. (2019). This study evaluates the place attachment of visitors to a nature-based tourism destination in Nigeria as an independent variable. In addition, previous studies of place attachment have focused more on two of its subconstructs, that is place dependence and place identity (see Gross & Brown, 2008; Lime & Costen, 2011; Jorgenson & Nickerson, 2016), while other subconstructs like place affect and place social bonding has been largely neglected. This study, therefore, considers the four dimensions of place attachment to address this dearth.

2.4. Environmental attitude, motivation, and place attachment

The involvement of stakeholders is vital for sustainable and viable tourism development (Kent et al., 2012). In nature-based tourist destinations especially, favorable environmental attitudes are important to achieve sustainable development (Cheung & Fok, 2013). According to Jones et al. (2012), the environmental

attitudes of tourists can influence their motivation and destination choice. Hsu et al. (2010) suggested that despite the affirmed significance of travel motivations in explaining consumer behavior, its relations to other constructs are comparatively under-researched. The relationship that exists between environmental attitudes and motivation has been explored in some studies (e.g. Luo & Deng, 2008; Cheung & Fok, 2013), however, studies on the mediating role of motivation in the relationship between environmental attitude and place attachment have received less attention globally, especially within the framework of nature-based tourism (e.g. Lime & Costen, 2011).

The study by Cheung and Fok (2013) found a significant relationship between nature-based visitors' environmental attitudes and motivations, where visitors with high environmental concerns traveled more frequently for novelty and those with lower concerns traveled more frequently for escape. Through examining tourists in a national forest park in China, Luo and Deng (2008) similarly found that environmental attitudes and motivation are intrinsically linked and positively correlated. Lime and Costen (2011) in their assessment of the relationship between the three travel behavioral constructs revealed that environmental attitudes were a significant predictor of tourists' motivation to a national park in the United States. It was also shown in the study that motivations to engage in nature-based tourism influence the tourists' place attachment. The few types of research that have been carried out have been in the anglo-western domains, thus there exists a need to not only expand studies on the relationship between the three constructs but also to provide an African perspective. We thus posit the following:

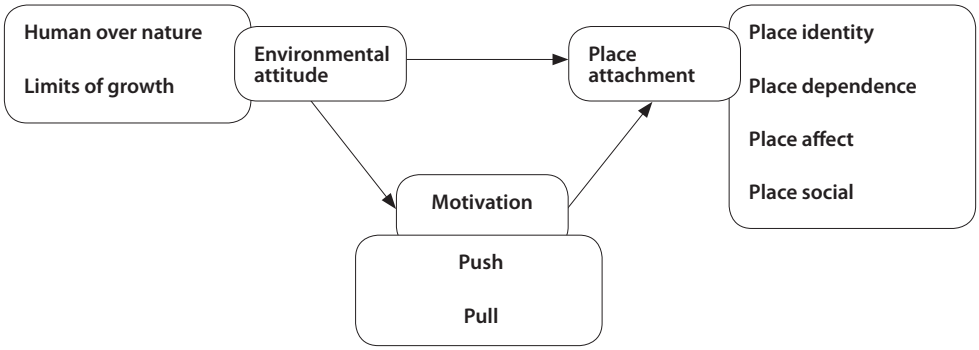
Ho1: Environmental attitudes significantly influence visitors' motivations to a wildlife park setting

Ho2: Environmental attitudes significantly influence the place attachment of visitors

Ho3: Visitors' motivation has a significant influence on place attachment

Ho4: Motivation mediates the relationship between visitors' motivations and place attachment

Figure 1
Hypothesized conceptual model



3. Methodology

Data was collected from visitors to the T. A. Afolayan Wildlife Park located at the Federal University of Technology, Akure, Nigeria. The park, situated at longitude 05° 18' E and latitude 07° 17'N in an 8.91 hectare of land (Olusola & Oyeleke, 2015), is managed by the university management under the auspices of the Department of Ecotourism and Wildlife Management. The park is comprised of two sections: the zoological section, covering about 1 hectare of the park, and the wild range zone which attracts tourists within the university environment, as well as from the host state and neighboring states. The wildlife park primarily serves as a facility for biological studies and recreational activities.

This study employed a quantitative research method. Data was collected from 372 adults (18 years and above) visitors using a structured questionnaire through a convenience sampling technique by the researcher and with the help of a research assistant, who doubled as a park officer. The visitors were approached at the rest point after the completion of their tour, and the purpose of the study was explained to them. All sampled respondents were Nigerians as no foreign respondents were encountered during the survey period.

The instrument was made up of 64 questions: 12 questions on environmental attitude using the NEP featuring human over nature (4), limits of growth (4), and ecocrisis (4), and 35 questions measuring the push (18) and pull (17) motivations of visitors and 16 place attachment questions on place identity (4), place dependence (4), place affect (4) and place social bonding (4). The environmental attitude scale was proposed by Dunlap et al. (2000). The motivation scale was adapted from Luo and Deng (2008), and Muhamad and Som (2010) while place attachment was adopted from Scannell and Gifford (2010). All scales were ranked on a 5-point Likert scale of strongly disagree (1) to strongly agree (5).

The data was assessed in terms of descriptive statistics (frequencies, percentages, means, and standard deviations) using Statistical Package for Social Sciences (SPSS) version 20 for the univariate analysis of environmental attitude, motivation, and place attachment. Partial least squares structural equation modeling (PLS-SEM) was done using SmartPLS version 3 in determining the relationships between the constructs.

4. Results

4.1. Environmental attitudes of visitors

Respondents showed the highest level of agreement with the human over nature (HON) factors (4.44) which included the following factors: 'Humans have the right to modify the natural environment to suit their needs' (4.62); 'Mankind was created to rule over the rest of nature' (4.57); 'Plants and animals exist primarily to be used by humans' (4.32); and 'Humans must live in harmony with nature to survive' (4.25).

The limit of growth (LOG) scale (3.80) had the second highest level of agreement among respondents. The factors included: 'To maintain a healthy economy we will have to develop a "steady-state' economy where industrial growth is controlled'; 'The balance of nature is very delicate and easily upset'; 'There are limits to growth beyond which our industrialized society cannot expand'; and 'The earth is like a spaceship with only limited room and resources' with mean scores of 3.88, 4.27, 3.47 and 3.57 respectively.

The ecocrisis (EC) scale (3.58) had the lowest level of agreement among respondents. The factors are: Humans need not adapt to the natural environment because they can remake it to suit their needs; 'When humans interfere with nature it often produces disastrous consequences'; 'We are approaching the limit of the number of people the earth can support'; and 'Mankind is severely abusing the environment' 'at mean scores of 3.74, 3.89, 3.32 and 3.38 respectively. Overall, the environmental attitude score of the visitors was 3.94 and these results of the environmental attitudes of the visitors are outlined in Table 1.

Table 1
Visitors'environmental attitudes

Factors	Mean	St.d	Order*
Human over nature	4.44	0.56	1^
Humans have the right to modify the natural environment to suit their needs.	4.62	0.52	1
Mankind was created to rule over the rest of nature.	4.57	0.80	2
Plants and animals exist primarily to be used by humans	4.32	0.93	3
Humans must live in harmony with nature to survive	4.25	0.96	5

Table 1 ***(continued)***

Limits of growth	3.80	0.60	2^
The balance of nature is very delicate and easily upset.	3.88	1.04	7
To maintain a healthy economy we will have to develop a "steady-state" economy where industrial growth is controlled.	4.27	0.86	4
The earth is like a spaceship with only limited room and resources	3.47	1.18	10
There are limits to growth beyond which our industrialized society cannot expand	3.57	1.22	9
Ecocrisis	3.58	0.80	3^
When humans interfere with nature it often produces disastrous consequences.	3.74	1.23	8
Humans need not adapt to the natural environment because they can remake it to suit their needs.	3.89	1.34	6
Mankind is severely abusing the environment.	3.32	1.41	12
We are approaching the limit of the number of people the earth can support	3.38	1.35	11
Environmental attitude score	**3.94**	**0.65**	

Note: St.d = Standard deviation.
* and ^: Rank order by descending mean in total sample.

4.2. Visitors' motivation to the wildlife park

4.2.1. Push motivation factors

As illustrated in Table 2, the factor 'to experience and appreciate nature (animals and plants)' had the highest percentage of agreement from respondents for motivation with an associated mean score of 4.60. This was followed by 'to be part of recreational activities' (4.24); 'to relax' (4.13); 'to spend time with family/friends' (4.09); 'to increase my knowledge' (4.09); 'to break away from the routine of everyday life, pressure and surrounding' (4.03); 'to gain a feeling of belonging' (3.84); 'going places I have not been' (3.65); 'to visit a destination that would impress my friends and family' (3.58); and 'to visit a place my friends/family have not been to' (3.57). Other factors include 'to challenge my abilities' (3.53); 'to meet and mix with new people with the same interest as mine' (3.49); 'being entertained and having fun' (3.44); 'to enjoy good weather' (3.36); 'rediscovering myself' (3.00); 'to increase my social status' (2.94); and 'rediscovering past good times' (2.80).

Table 2
Push motivational factor of the visitors

Factors	Mean	St.d	Order*
To experience and appreciate nature (animals and plants)	4.60	0.57	1
To spend time with my family /friends	4.09	1.23	4
To be part of recreational activities	4.24	0.75	2
To break away from the routine of everyday life, pressure, surrounding	4.03	0.98	6
To meet and mix new people with the same interests as mine	3.50	1.04	12
To relax	4.13	1.10	3
To enjoy good weather	3.36	1.38	14
To challenge my abilities	3.53	1.27	11
To gain a feeling of belonging	3.84	1.08	7
To increase my knowledge	4.09	1.08	4
Being entertained and having fun	3.44	1.46	13
Rediscovering myself	3.00	1.51	15
Rediscovering past good times	2.80	1.37	17
To increase my social status	2.94	1.52	16
Going places I have not been	3.65	1.28	8
To visit a place my friends/family have not been to	2.43	1.57	10
To visit a destination that would impress my friends and family	3.58	1.56	9

Note: St.d = Standard deviation.
*Rank order by descending mean in the total sample.

4.2.2. Pull motivation factors

As presented in Table 3, the factor 'fame/reputation of the zoo' had the highest percentage of agreement (4.12) for the pull motivation factors. This was followed by 'diversity of animal species in the zoo' (3.86); 'affordability' (3.81); 'time and distance of travel' (2.26); and 'availability and adequateness of transit system' (3.72). Other factors were 'preferred animal species' (3.54); 'unique eco-environment of the zoo' (3.42); 'personal safety' (3.21); value for money (3.13); 'the zoo is family oriented' (2.78); 'unique souvenirs' (2.86); 'quality of the zoos marketing strategies' (2.79); 'past experience' (2.62); 'availability of visitor guidance/reception centers' (2.62); and 'hospitality/friendliness/receptiveness' (2.59). The factors with the highest percentage of disagreement were 'tidiness/cleanliness' (1.81); 'environmental management initiative of the zoo' (2.21); and 'recommendation by family/friends (2.55).

Table 3
Pull motivation factors of the visitors

Factors	Mean	St.d	Order*
Diversity of animal species in the zoo	3.86	1.20	2
Preferred animal species	3.54	1.23	6
Unique eco-environment of the zoo	3.42	1.27	7
Unique souvenirs	2.86	1.50	11
Personal safety	3.21	1.35	8
Quality of the zoos marketing strategies	2.79	1.43	12
Value for money	3.13	1.49	9
Hospitality/friendliness/receptiveness	2.59	1.31	15
Tidiness/cleanliness of the place	4.60	8.58	18
Fame/reputation of the zoo	4.12	1.04	1
The zoo is family oriented	2.88	1.45	10
Affordability	3.81	1.08	3
Past experience	2.62	1.47	13
Time and distance of travel	3.74	0.96	4
Availability and adequateness of transit system	3.72	1.18	5
Availability of visitor guidance/ reception centers	2.62	1.17	13
Recommendation by family/friends	2.55	1.27	16
Environmental management initiatives e.g. Eco labels	2.21	1.30	17

Note: St.d = Standard deviation.
*Rank order by descending mean in the total sample.

4.3. Place attachment of visitors to the park

4.3.1. Place identity

The place identity scale had the third highest percentage of agreement among the four place attachment scales (3.11). The factor, 'I identify strongly with this zoo' had the highest percentage of the agreement under the PID scale (3.37). This was followed by 'I have a strong sense of belonging to this zoo' (3.25), 'I feel this zoo is part of me' (3.18) and with the lowest percentage of agreement, 'visiting this zoo says a lot about who I am' (2.64).

4.3.2. Place dependence

The place dependence scale had the highest percentage of agreement (3.39). The individual factors included 'for what I like to do, I could not imagine anything better than the settings and facilities provided by the zoo' (3.75), 'for the activities I enjoy the most, the settings and facilities provided by this zoo is the best' (3.45),

'I enjoy visiting this zoo more than any other zoo/natural attraction' (3.22), as well as, 'no other place can substitute for the attractions of this zoo' (3.13).

4.3.3.Place affect

The scale of place affect had the second highest percentage of agreement (3.13). The factors included, 'I feel a strong sense of belonging to this zoo and its settings/facilities' (3.16), 'I have a special connection to the people who visit here' (3.29), 'I am very attached to this zoo' (3.14) and 'this zoo means a lot to me' (3.01).

4.3.4. Place social bonding

The place social bonding scale had the lowest percentage of agreement (2.73). The factors included, 'many of my friends/family prefer this zoo over many other natural attractions' (2.67), 'if I were to stop visiting this zoo, I would lose contact with several friends' (1.93), 'my friends/family would be disappointed if I were to start visiting other settings/facilities' (1.99) and 'I prefer to visit this attraction with people who are important to me' (3.93).

Overall, there was a general indifference to place attachment expressed by the visitors (3.09) as demonstrated in Table 4.

Table 4
Place attachment of the visitors

Factors	Mean	St.d	Order*	Order**
Place identity	3.11	1.15		3
I feel this zoo is part of me	3.18	1.21	13	
I identify strongly with this zoo	3.37	1.34	9	
I have a strong sense of belonging to this zoo	3.25	1.37	10	
Visiting this zoo says a lot about who I am	2.64	1.37	19	
Place dependence	3.39	1.11		1
For what I like to do, I could not imagine anything better than the settings and facilities provided by this zoo	3.75	1.34	7	
For the activities I enjoy the most, the settings and facilities provided by this zoo are the best	3.45	1.23	8	
I enjoy visiting this zoo more than any other zoo/nature attractions	3.22	1.21	12	
No other place can substitute for the attractions of this zoo	3.13	1.30	16	
Place affect	3.13	1.07		2
I am very attached to this zoo	3.14	1.13	15	
I feel a strong sense of belonging to this zoo and its settings/facilities	3.16	1.36	14	
This zoo means a lot to me	3.01	1.12	17	
I have a special connection with the people who visit here.	3.29	1.29	11	
Place social bonding	2.73	0.64		4
Many of my friends/family prefer this zoo over many other natural attractions	2.67	1.22	18	
If I were to stop visiting this zoo, I would lose contact with several friends	1.93	1.03	21	
My friends/family would be disappointed if I were to start visiting other settings and facilities	1.99	0.81	20	
I prefer to visit this attraction with people who are important to me	3.93	0.91	4	
Place attachment score	**3.09**	**0.87**		

Note: St.d = Standard deviation.
* and ** Rank order by descending mean in the total sample.

4.4. Relationships between environmental attitude, motivation, and place attachment

4.4.1. Measurement model

The measurement model was assessed in an accordance with past studies by measuring the Cronbach alpha (CA), composite reliability (CR), convergent reliability (Average Variance Extracted), and discriminant validity. The CA values obtained were between 0.612 - 0.871. This is considered satisfactory following Hair et al. (2014) who documented CA values of above 0.60 and 0.70. The CR scores obtained ranged from 0.699-0.913. According to Hair et al. (2014), CR values of 0.70 and 0.90 are considered satisfactory. The results also fulfilled the criteria for convergent reliability as the AVEs were at least 0.50. This test was recommended by Fornell and Larcker (1981). The discriminant validity which is the indicator that the measured constructs are independent of each other was measured following (Chin, 1998), in which indicators have higher factorial loads under their latent constructs than in others. The data fulfilled this criterion. In addition, the collinearity (VIF) of the structural model was evaluated. This was to ensure that the data was free of bias. According to Hair et al. (2017), the value of VIF should be less than or equal to 3.30. The data fulfilled this criterion. The Heterotrait-Monotrait (HTMT) ratio which ensures multicollinearity (Gold et al., 2001) also did not exceed the 0.9 thresholds.

4.4.2. Structural model

The Pearson coefficient (R2) evaluates the portion of the variance of the endogenous variables, which is explained by the structural model. In PLS-SEM, the R2 value of 0.60 (60%) is considered substantial, 0.33 (33%) as moderate, and 0.19 (19%) as weak (Chin, 1998). The value of R2 in this study (Table 5) showed that 43% of the variance in motivation was accounted for by environmental attitude while 25.3% of the variance in place attachment was accounted for by motivation.

In measuring the effect size, Cohen (1988) suggests that F2 should be higher than 0.02 (2%). Two percent is considered a small effect, 13% as a medium effect, and 26% as having a large effect. The result (Table 5) showed that there was an effect - where the effect of environmental attitude on motivation is considered a large effect (30.3%), while that of motivation on place attachment is a medium effect (20.3%).

The result of the SEM analysis is presented in Figure 1. The result shows that environmental attitudes have a negative but significant effect on place attachment (β= -270, t= 2.799, p =0.006). There was a positive and significant relationship found between environmental attitude and motivation (β= 0.482, t= 8.861, p =000). Similarly, a strong relationship was found to exist between visitors' motivation and place attachment to the park (β= 0.449, t= 7.710, p =0.000). The result of the mediating role of motivation in the relationship between environmental attitude and place attachment also revealed a positive and significant relationship (β= 0.216, t= 7.659, p =0.000). According to Hair et al. (2014), if the direct effect is not significant and the indirect effect is significant, full mediation has occurred; if both direct and indirect effects are significant, partial mediation has occurred. The results demonstrate that motivation partially mediated the relationships between the constructs.

Figure 2
SEM results

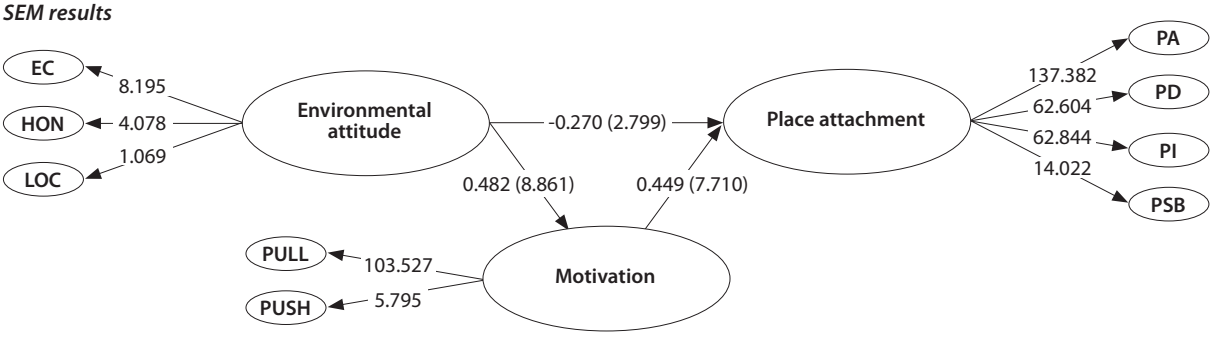


Table 5
Path coefficients and hypothesis testing

Effect	Relationship	Beta	Mean	St.d	t-value	P value
Direct	Environmental attitude - Place attachment	-0.270	-0.271	0.097	2.773	0.006
	Environmental attitude – Motivation	0.482	0.481	0.044	10.903	0.000
	Motivation – Place attachment	0.449	0.448	0.061	7.298	0.000
Indirect	Environmental attitude – Motivation – Place attachment	0.216	0.214	0.028	7.659	0.000

5. Discussion

The findings of this study can be divided into six key components. Firstly, on environmental attitudes, visitors showed the highest levels of agreement with the HON factors, which was followed by LOG factors and then by the EC factors. The highest levels of agreement were with the following HON factors: 'Humans have the right to modify the natural environment to suit their needs', 'Mankind was created to rule over the rest of nature', and 'Plants and animals exist primarily to be used by humans. These factors are three of the four that represent anthropocentric beliefs, which is also known as the dominant social paradigm. Factors with the lowest agreement levels included: 'Mankind is severely abusing the environment', 'We are approaching the limit of the number of people the earth can support', and 'When humans interfere with nature it often produces disastrous consequences'. This finding illustrates that the visitors had limited belief in environmental degradation as a result of human exploitation and an inexhaustible view of environmental resources. Essentially, the visitors were found to demonstrate anthropocentrism - a disposition that does not favor the environment. This is a finding also reported by Ajayi et al. (2018) among visitors to a biological garden in Nigeria. Thomson (2013) noted that while tourists in nature-based environments may have high levels of environmental awareness, their attitudes and behavior may not necessarily be environmentally friendly. On the other hand, this contradicts Grbac et al. (2013), who both documented more environmentally conscious visitors in nature-based destinations located in Hong Kong and Istria respectively.

The second component of the findings of this study was that the utmost push motivational factor in the park was 'to experience and appreciate nature'. This finding is consistent with Merwe and Saayman (2008) and Ballantyne et al. (2009). This factor is widely recognized and documented as a viable push factor that drives the desire of people to explore nature (plants and animals) whether in in-situ (such as National Parks) or ex-situ (such as zoos) environments. The second most significant factor is 'to be part of recreational activities'. The activities individuals partake in for enjoyment purposes at leisure are referred to as recreation (Hornby, 2009). Zoos and wildlife parks are generally considered recreation environments by visitors. This is in keeping with the findings of Kuuder et al. (2013), Jordaan and Du Plessis (2014), as well as Ajayi and Ayodele (2017). It was additionally found that visitors also sought relaxation in the park. This push factor has also been identified by researchers such as Anderson et al. (2008), Yilmaz et al. (2010), as well as Jordaan and du Plessis (2014). An 'increase of knowledge' was the fourth push factor found in this study. This corroborates studies conducted by Alarape et al. (2015), Lee (2015), and Mutanga et al. (2017) who identified education as one of the principal travel reasons for visiting wildlife environments. Visitors' fifth most significant motivational push factor was found as a social pursuit to spend time with family/friends. The studies of Yilmaz et al. (2010) and Couch (2013) documented this same finding.

In terms of pull factors, visitors to the Wildlife Park indicated the 'fame/reputation of the park' as the principal pull factor. Although Wildlife Park is a relatively new establishment, founded in 2012, the fame/reputation of the zoo may have been garnered from the advertisements of the park on platforms such as the university radio. The second pull factor was found to be the 'diversity of animal species in the garden'. The

park however has only thirteen species of animals in the zoological section which include: ostrich (Struthio camelus), crocodile (Crocodylus nilotocus), olive baboon (Papio anubis), red flanked duiker (Cephalophus rufilatus), and mona monkey (Cercopithecus mona). Mutanga et al. (2017) also reported the availability of different species of animals as a pull factor in Zimbabwe's national parks. The factors of 'affordability', 'time and distance of travel', and 'availability and adequateness of transit system' were identified as the third, fourth, and fifth most significant pull motivating factors, respectively. These factors are commonly considered by all tourists according to Mahika (2011).

Thirdly, visitors were found to be largely indifferent to the various place attachment measures of place dependence, place identity, place affect, and place social bonding. Scannell and Gifford (2010) noted that the higher an individual's level of attachment to a place, the lower their willingness to change to another place. In other words, people assess places vis a vis the available alternatives (Yuksel et al., 2010). With a respect to this study, it can be inferred that visitors considered other alternatives as better than the park.

The fourth component of the findings of this study was that the environmental attitudes of visitors significantly influenced their motivation to visit the park. This affirms the propositions of Jones et al. (2012) that attitudes, especially toward the environment, can influence the behavior of tourists, particularly in nature-based environments such as wildlife parks. This finding has been substantiated in the studies of Cheung and Fok (2013) and Lime and Costen (2011). The relationship between visitors' motivations and environmental attitudes was found to be positive and significant. Interestingly, Luo and Deng (2008) empirically tested the relationship between environmental attitudes using the NEP and NBT motivation among visitors to a Chinese national park. The results of this study revealed a positive but insignificant relationship between the two constructs. Lime and Costen (2011) on the other hand, and like this study, documented a positive and significant relationship.

Fifthly, a positive and significant relationship was also found to exist between visitors' motivations and place attachment to the park. Similarly, Lime and Costen (2011) established a positive association in their study within the context of a national park. While this type of relationship has been largely under-researched, it becomes difficult to compare with other cases and typologies. It, therefore, becomes expedient that further studies in various contexts be carried out to enable generalizations.

Finally, it was also found that a significant relationship exists between visitors' environmental attitude and place attachment to the wildlife park. This finding exonerates the partial mediating effect of motivation in predicting environmental attitudes and place attachment, thus parallelling the findings of Lime and Costen (2011).

6. Conclusion and managerial implications

The essence of this study was centered on the need to provide empirical insights into the understanding of travel behaviors of nature-based visitors in a Nigerian context. Of particular interest were environmental attitudes, motivation and place attachment, and the interrelationships between them. These findings provide a valuable grounding for understanding the travel behaviors of nature-based visitors, and also serve to provide valuable guidelines for enhancing the sustainability of nature-based tourism destinations both in the country and globally.

The study established the anthropocentric beliefs of visitors in a nature-based tourism destination setting, namely a Wildlife Park. This finding is a deviance from the expected ecocentric beliefs that are believed to be associated with visitors to such destinations and as has often been recorded in previous studies. This finding offers guidance to nature-based tourism destination managers, particularly in Nigeria, in that it highlights the need to educate tourists about their destinations. While tourists may hold negative inclinations before their visit, they should gain a better understanding of the environment and the need for its conservation through programs and activities (such as interpretive tours, visitors management centers, volunteering programs such

as planting of trees and waste clean-up) designed by the managers before they leave the destination. In so doing, this would aid in shaping tourists towards becoming more environmentally conscientious. Additionally, the innovative inclusion of environmental courses in school curriculums, the intensification of environmental awareness campaigns, and the involvement of kids in environmental activities like tree planting, etc can also aid in the development of more environmentally conscious individuals.

Motivations of visitors centered on experiencing and appreciating nature, recreation, relaxation, and education are aligned with the core goals of the establishment of such areas. It becomes essential for destination managers to continually make efforts to protect the natural resources of the park, as this is the primary attractive value and motivating factor for the visitors. On one hand, it serves to encourage visitors' patronage of the destination which enhances revenue generation for management. On the other hand, it also serves to bring about environmental conservation where the much-needed revenue generated can be channeled to the protection of the park. Additionally, promotional efforts should be targeted at improving the recreation and relaxation themes of the park, since these are also important motivators. Educational packages such as interpretive tours and educative signages should be carried out in the park, since the visitors not only seek to experience natural environments and recreate, but to also better their knowledge. The fame and the reputation of the park matter significantly to the visitors and, for this study, is the foremost factor pulling them to the destination. This, therefore, makes it expedient for managers to continually project the positive image of the park through advertisement. The provision of quality and satisfying experiences to visitors also matters as this can facilitate word-of-mouth promotions. Conservation of the natural resources inherent in the park, and by extension other natural attractions, is highly necessary as this was identified as a significant pull motivation in this study, as well as in previous studies.

Attachment to the wildlife park place was mild among visitors as they largely exhibited indifference. Destination managers need to offer incentives that could promote place attachment. This could be in the form of discounts on repeat visits, reduced entry fees, or free entry for tourists who participate in environmental activities in the park, etc. Generally speaking, this study affirmed the intervening role of motivation in influencing environmental attitude and place attachment. In essence, a more positive environmental attitude of the visitors enhances their motivation to engage in nature-based tourism, which subsequently, and inadvertently, enhances attachment to such destinations. Theoretically, visitors with more environmentally-friendly attitudes have greater tendencies to visit nature-based destinations to fulfill their need to experience nature, learn, relax as well as recreate, which thus fosters greater commitment and attachment. Furthermore, the sustainability of nature-based tourism is dependent on the continued availability of a market with a degree of environmental conscientiousness and love for recreation within a natural setting.

This study is limited in that it was conducted in only one nature-based tourism destination. For ease of generalization and cross-cultural comparison, it is important to replicate the study in other nature-based tourism destinations both locally, in Nigeria, as well as internationally. The sampled population, comprising all local Nigerians, could hence not account for differences based on nationality and other socio-demographic characteristics were also unstudied. Further studies could be expanded by documenting the differences that exist across tourists' socio-economic statuses vis a vis the constructs measured.

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