Segmenting and Understanding Ecotourists in Nigeria National Parks by Environmental Attitudes

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Abstract
Research on environmental attitudes of ecotourists has become an important tool in identifying support and ultimate behaviours towards conservation and environmental issues. This study was conducted to determine the attitudes of ecotourists in the seven existing national parks in Nigeria towards the environment and the socio-demographic and trip characteristics underling the attitudes. Data were collected through the use of questionnaire administered on 350 randomly selected ecotourists. The New Environmental Paradigm (NEP) scale was used to measure the attitudes of the respondents. The results indicated that 97.4% of the ecotourists had favourable environmental attitudes, factors analysis revealed four dimensions for the NEP scale. Bivariate analysis revealed that occupation and overnight stay were related to ecotourists' environmental attitudes (p<0.01). The explanatory variables in regression models, specifically, gender, membership of environment-related NGOs and ecotourist length of stay contributed substantially to explaining environmental attitudes. A favourable environmental attitude is very important, and could provide future support to conservation activities within the parks and other protected areas in Nigeria.

Keywords: Segmenting, understanding, ecotourists, environment, attitudes, Nigeria

Introduction

Environmental problems, emanating from unabated modification and exploitation of environmental resources has reached a proportion previously unknown from pre-historic times. From global perspective, Shoukry *et al.* (2012) were of the opinion that environmental problems and environmental issues have become some of the most important problems and issues in the late modernization age. In furtherance to the above assertions, Stern *et al*. (1993) posited that the greatest problems facing the earth are the impact of humans on the environment. Environmental issues have become important and fundamental in local, regional and international discourse in recent decades, with concomitant impact on public awareness and knowledge about environmental problems and the associated challenges. To reduce human impacts on the earth systems, global governance premised on sustainable development was developed.

World Commission on Environment and Development (WCED, 1987) defines sustainable development as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Ecotourism, a concept and act that emanated from sustainable development, is about uniting conservation, communities and sustainable travelling (Mfinanga, 2011). Ecotourism in the view of Blangy and Mehta (2006) has become one of the fastest growing sectors of the tourism industry, growing three times faster than the tourism industry as a whole and becoming an important tool for economic, environmental and cultural sustainability. Ecotourism is being increasingly viewed by local and rural communities as an important tool for promoting sustainable livelihoods, cultural preservation and biodiversity conservation (Honey, 2006). For example, Lee and Moscardo (2005) opined that 'an ecotourism resort should develop visitors' knowledge and awareness of the natural environment and encourage them to conserve the environment through such practices as waste minimization, energy and water conservation, and minimal wildlife disturbance. It has also been pointed out that ecotourism businesses may be well placed to make active contributions to conservation through, for example, the communication of conservation messages to the general public (Beaumont, 1998, 2001). The growth of ecotourism and its development around the World is also accompanied by negative impacts, causing untold damage to some of the most ecological systems (Blangy and Mehta, 2006). Such damages are offshoot of human environmental attitudes. Moving towards the goal of sustainability, according to Karademir (2013) requires fundamental changes in human attitudes and behavior.

Fishbein and Ajzen (1975) defined attitude as 'a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object. Environmental attitude is a learned belief which develops from an individual's knowledge and values about the environment and governs action to support or sustain the environment (Vitto *et al.,* 2004). Kaltenborn *et al.* (2011) viewed an attitude toward the environment as a measure of how people would like to experience the landscape according to their personal preferences for environmental, social, and cultural aspects. Ecotourists' environmental attitude is thus defined in this study as a learned belief of ecotourists that develop from their knowledge and values about the environment and which governs their action to support and sustain the environment.

This study examined the environmental attitudes and how these attitudes were influenced by their socio-demographic factors and trip characteristics. It is expected that the ecotourists would support a more ecological view of man and nature and that their attitudes will vary from favourable attitudes to unfavourable

attitudes. The specific research questions are: i) which of the environmental problems facing Nigeria currently do the ecotourists think is the most important? ii. What are the attitudes of ecotourists towards the environment? iii) What are the dimensions of ecotourists' environmental attitudes? iv) Are their attitudes influenced by socio-demographic factors and trip characteristics?

There have been extensive researches involving the use of the New Environmental Paradigm, particularly in behavioural sciences, but few have applied it to segment ecotourists. Formica and Uysal (2002), Zografos and Allcroff (2007) and Mehmetoglu (2010) have used the New Environmental Paradigm (NEP) scale in segmenting and creating topology of tourists in natural area. Furthermore, studies involving segmentation of ecotourists in Nigeria National park are non-existent, rather, most studies have been on attitudes of local communities towards protected areas and ecotourism (Ogunjinmi *et al.,* 2012, Digun-Aweto *et al.,* 2015). Thus, the relevance of using environmental attitudes to segment ecotourists has largely remains relatively unexplored in Nigeria's ecotourism context. Information on ecotourists' environmental attitudes and the socio-demographic and trip characteristics that influence them is an important key to an effective management and market segmentation of the parks.

Market segmentation has become an instrument of marketing strategy. Smith (1956) defines market segmentation as a strategy that consists of viewing a heterogeneous market (one characterized by divergent demand) as a number of smaller homogenous markets. Market segmentation according to Millar and Mayer (2013) enables one to better identify those smaller homogenous markets. By utilizing market segmentation effectively and meaningfully, a tourist destination may gain many impressive benefits including competitive advantage (Berrigan *et al.,* 1992, Dolnicar *et al.,* 2005). Diverse services and customers in tourism make segmentation a necessary tool for responding to changes and to competitors' pressure (Tsiotsou and Goldsmith, 2012). Birdir (2015) suggested that using and benefitting from results of various segmentation studies, destination managers, officers and firm owners are able to better position their destinations which in turn enables them to attract large number of tourists to their destinations and establishments.

Marketers according to Tsiotsou and Goldsmith (2012) have used various criteria as the bases of segmentation. The most often used criteria according to the review of literature on segmentation studies in tourism by Dolnicar (2006) revealed that psychographic variables are the most often used segmentation criteria (75%) followed by behavioural (21%) and mix of both (4%). However, Tsiotsou and Goldsmith (2012) reported that demographics, socioeconomic and lifestyle variables are often used in segmenting tourists. From literatures, the variables recommended for tourist segmentation are demographic characteristics (Chen, 2000, Sung, 2004, Tsiotsou, 2006), activities (Sung et al., 2000, Sung, 2004), travel expenditure (Mok and Iverson, 2000), benefits (Frochot and Morrison, 2000, Frochot, 2005) and motivation (Sellick, 2004).

Attitudes have long been a topic of interest to social psychologists because of the ease with which attributes determine positive and negative feelings towards certain activities (Fennell and Nowaczek, 2003). According to Nilsson and Kuller (2000), attitude is a psychological construct composed of affective, cognitive and behavioural components which may be used to describe human evaluative responses. The theory of planned behaviour (TPB) viewed behaviour as a function of attitudes, subjective norms and perceived behaviour control (Ajzen, 1991). NEP scale has been extensively used to analyze and contrast environmental attitudes of different groups (Caron, 1989; Hall, 1990; Noe and Snow, 1990). The evolution of ecotourism and nature-based tourism due to public concern on the environmental impact of mass tourism on marginal lands led to tourist segmentation by environmental attitudes and behaviours.

Studies by Uysal *et al.* (1994) segmented visitors' environmental attitudes by trip and visitors' characteristics. Other studies also characterize environmental attitudes by socio-demographic characteristics, with them revealing divergent outcomes. For examples, relationships between gender, income, education, occupation and environmental attitudes and behaviours have been reported (Udaya Sekhar, 2003, Tonglet *et al.,* 2004, Gilg and Barr, 2006, Timlett and Willams, 2008, Sidique *et al.,* 2010, Saphores *et al.,* 2012). Gender differences in environmental attitudes have also been observed. For example, Taylor *et al.* (2010) revealed significant difference in environmental attitudes by gender. As opposed to men, females tend to exhibit higher levels of concern for the natural environment, participate more frequently in green activities, and are more likely to make green purchasing decisions (Laroche *et al.,* 2001). With regard to tourists, various studies (Kim, 2012) found that female tourists demonstrated a stronger attitude toward green issues compared to their male counterparts. In consideration of environmental attitudes, females have higher concern than male (Uysal *et al.,* 1994, Diamantopoulos *et al.,* 2003).

In a seminal study, Van Liere and Dunlap (1980) established that age was significantly correlated to environmental attitudes. Roberts (1996) also found that compared to younger individuals, older people tend to be more ecologically conscious and engage more frequently in eco-friendly initiatives. Scott and Willits (1994) reported that people with higher income are more conscious about the natural environment. In a tourism setting, Eagles and Cascagnette (1995) indicated that more affluent individuals are more likely to be environmental conscious. Arcury (1990) and Inglehart (1995) found that highly educated respondents always have more pro-environmentalist values. Van Liere and Dunlap (1980) and Ogunjinmi *et al.* (2012) established significant relationship between education and environmental attitudes. Studies have also shown significant relationship between environmental attitudes and occupation (Buttel and Flinn, 1974, Ogunjinmi *et al.,* 2012). Fielding *et al.* (2008) revealed that intentions to engage in green activism are also determined by environmental group membership. Ogunjinmi *et al.* (2012) observed that there was no significant relationship between environmental attitudes and being a member of environment-related non-governmental organisations.

Studies have also shown significant differences in tourists' environmental attitudes based on trip characteristics. Uysal *et al.* (1994) revealed that significant differences exist between environmental attitude sub-scales, i.e. humans over nature and limits to growth with regard to visitors travel group and overnight stay. They also demonstrated no significant impact of travel group and overnight stay on environmental sub-scale, i.e. balance of nature.

Materials and Methods
The Study Areas
This study was conducted in the existing seven National Parks located in different bio-geographic zones of Nigeria (Figure 1). The parks are Chad Basin National Park, Borno and Yobe States, Cross River National Park, Cross River State, Gashaka Gumti National Park, Taraba and Adamawa States, Kainji Lake National Park, Niger and Kwara States, Kamuku National Park, Kaduna State, Old Oyo National Park, Oyo State and Okomu National Park, Edo State. Nigeria has a land area of 923,768 km^2 and it is bordered in the west by Benin republic, the north by republics of Niger and Chad, the east by Cameroon, and the south by the Atlantic Ocean. The diverse landscapes and climatic conditions found in Nigeria are home to significant plant and animal diversity (Hahn, 2013). The national parks cover about 22,592km^2 (i.e. about 2.5%) of the country. National Parks are assets of the Federal Government and the agency responsible for their management is the National Parks Service, under the Federal Ministry of Environment (Marguba, 2002).

Population, Sampling, and Instrument
The sampling frame for this study was ecotourists to the parks from October 2008 to May 2009 and October 2009 to May 2010. These periods represent 'on seasons' for recreational activities in the national parks. A sample size of 350 respondents was determined using Krejcie and Morgan (1970) method of determination of sample size and this was based on 4000 visitors engaged in nature-based recreational activities in the parks in 2007, which was obtained from National Park Service. The sample size is sufficient in terms of precision of results. The questionnaire was designed to collect information on respondents' socio-demographic characteristics, specifically gender, age, occupation, education, monthly income and membership of environment-related NGOs. Information were also collected on trip characteristics by asking the respondents how frequently they visit the parks, period of visit (either during the day or overnight trip), their group size and length of stay at the destination. The respondents were also presented with a list of environmental problems currently facing Nigeria and 12 NEP scale items.
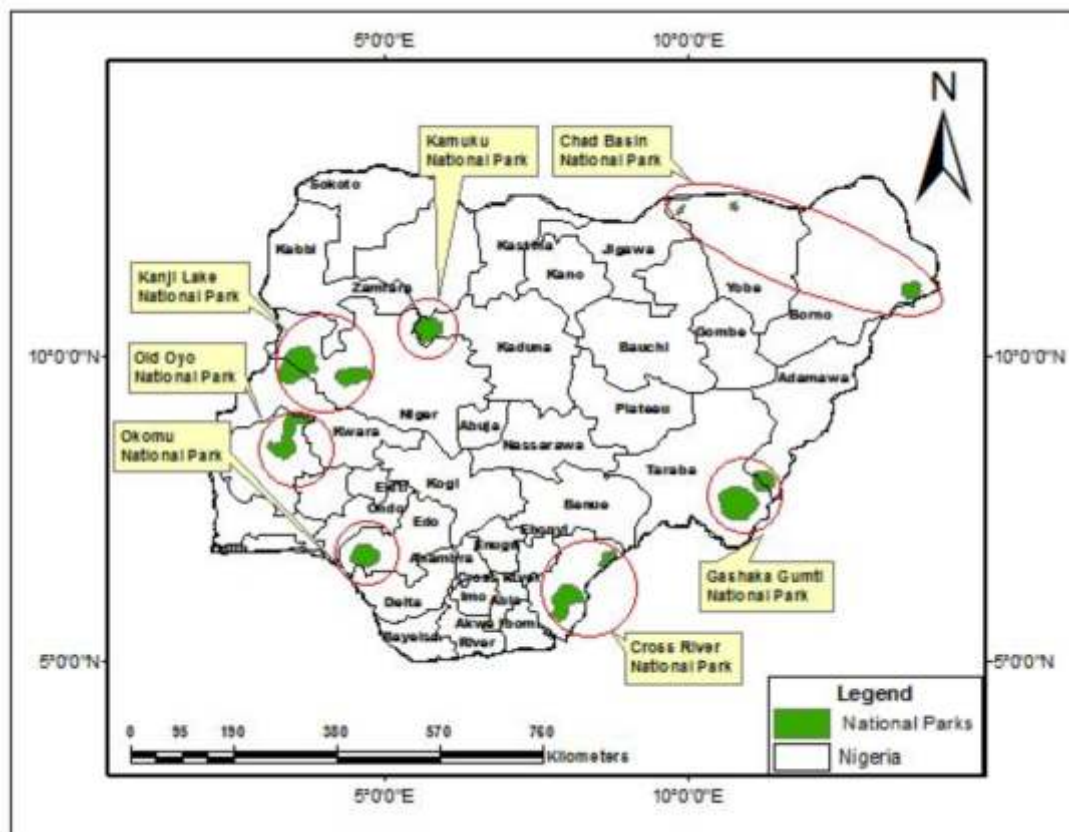

Figure 1: Map of Nigeria showing the location of Nigeria National Parks
Source: Ogunjinmi, 2015.

Measurement of Variables and Analysis

In this study, six socio-demographic and four trip related variables were measured. The socio-demographic variables are age which was measured in years; gender was measured as male (1) or female (0); education was measured as non-formal (1), primary (2), secondary (3), National Diploma/Nigeria Certificate in Education (NCE) (4), BSc/Higher National Diploma (HND) (5), and MSc/PhD (6), occupation was measured as professional/management=1, student=2, income was in Naira (N), and membership of NGOs on environment as yes = 1 and no=2. The trip characteristics are frequency of visit which was measured as regularly=3, occasionally=2, and rarely=1, period of visit (day/night visit) was measured as day=1, night=2, group size measured as the number of individuals travelling to the destination, length of stay was measured as number of days spent at the destination. The New Environmental Paradigm (NEP) scale (Dunlap and Van Liere, 1978) was used to determine the environmental attitudes of the ecotourists. Despite some criticisms, the NEP is the most frequently used measure of environmental concern and is generally acknowledged as a reliable multiple-item scale for environmental attitudes (Kostova et al., 2011, Ogunbodede, 2013, Filby, 2015). The NEP is a very useful measure to examine tourists' environmental attitudes and values (López-Bonilla and López-Bonilla, 2016). The 12 items were rated on a 4-point Likert Scale type of 4=strongly agree, 3=agree, 2=disagree and 1=strongly disagree. The respondents' scores were used to categorise them into favourable environmental attitudes and unfavourable environmental attitudes. The Cronbach's Alpha test (Cronbach, 1951) indicates a high internal consistency of 0.80 for the NEP scale.

Analysis was done with IBM SPSS statistics software version 21. Data were presented and described with tables, means, and standard deviations. Chi-square and correlation analyses were used to determine relationships between independent and dependent factors. The dimensions of NEP scale were identified through factor analysis. Multiple regression analyses with linear, semi-log and double log models were employed in determining the predictors of environmental attitudes among the socio-demographic and trip characteristics. Multiple regression analysis helps one understand how the typical value of the dependent variable changes when any of the independent variable changes or varies (Koutsoyiannis, 2001). The total NEP scale score as the dependent variable and the selected socio-demographic and trip characteristics as independent variables were fitted into the data.

Results and Discussion

The socio-demographic characteristics of the respondents is presented in Table 1. Of the 350 responses, 70.9% were males compared with the 29.1% who were female respondents. This is inconsistent with Hu and Lu (2014) regarding 60.5% female respondents recorded in ecotourism sites in Zhejang, China. This inconsistency could have been due to Nigerian culture which frowns at female travelling for recreation alone or without permission from either the parents or husbands. The vast majority of these respondents were in the age group of 25-54 years; this is the second largest national age group in Nigeria (CIA Factbook, 2016). Concerning respondents' occupation, 61.1% were of professional/management occupation. This confirms the assertion of Boas *et al.* (2004) that ecotourists were professionals in different areas. Furthermore, 50.6% of the respondents had bachelor degree/higher national diploma, an indication that they represented a well-educated segment of Nigerian population. As reported by Coghlan (2011) in Australia's Great Barrier Reef, tourists were educated. Majority (58.3%) of the participants in the survey earned less than N18, 000 (USD112.5) (USD1= N160 at the time of this study) per month. The income is thus lower than the country's minimum wage of N18, 000 (USD112.5). Dolnicar *et al.* (2008) found that environmentally friendly travellers are generally defined as well educated with high income levels. The findings further suggest that membership of environment-related NGOs among the respondents was low with 32.0%; which could be connected to low level of activities and outreach of environment-related NGOs in most parts of the country. On trip characteristics (Table 2), 80.0% visited the parks occasionally, this suggest that the ecotourists were not frequent in the parks. The study also revealed that 76.6% of the ecotourists were night visitors, 45.7% had group size of 6 individuals or more, thus indicating a large group size while 72.6% stayed for a day.

Table 1: Socio-demographic Characteristics of Respondents (N = 350)

Variable	Frequency	Percentage
Gender		
Male	248	70.9
Female	102	29.1
Age (years)		
0-14	0	0.0
15-24	92	26.3
25-54	256	73.1
55-64	2	0.6
65 years and over	0	0.0
Occupation		
Professional/Management (civil servant, medical personnel, lawyers, engineers, teachers)	214	61.1
Students	136	38.9
Education		
Non-formal	1	0.3
Primary	4	1.1
Secondary	46	13.1
National Diploma/ Nigerian Certificate in Education	79	22.6
BSc/Higher National Diploma	177	50.6
MSc/PhD	43	12.3
Monthly income (Naira= ₦) (USD1= ₦160)		
Less than 18,000		
19,000-40,000		
41,000-60,000	30	8.6
61,000 and over	46	13.1
Membership of environment-related NGOs		
Yes	112	32.0
No	238	68.0

Table 2: Respondents' Trip Characteristics

Trip Characteristics	Frequency	Percentage
Frequency of visit		
Regularly	63	18.0
Occasionally	280	80.0
Rarely	7	2.0
Day/Overnight visit		
Day	82	23.4
Night	268	76.6
Group size		
1	93	26.6
2-3	58	16.6
4-5	40	11.4
6 and over	159	45.4
Length of stay		
1	254	72.6
2-3	21	6.0
4-5	9	2.6
6 and above	66	18.8

A summary of the respondents' ratings of the important environmental problems currently facing Nigeria is presented in Table 3. The mean values of environmental problems ranged from 2.25 to 2.68. Of the environmental problems indicated, the respondents rated loss of biodiversity as the most environmental problems currently facing Nigeria (Mean= 2.68, SD=0.55). This is in contrast to reports by Asai Glass Foundation (2015) global survey of environmental problems and the survival of humankind. In their reports, climate change was the most frequently selected environmental condition of concern, followed by pollution/contamination, water resources, biodiversity, and land use. The respondents' mean values for the NEP Scale (4 - Point Scale) are in Table 4. The mean values ranged from 1.89 to 3.64. The highest mean value was for 'humans must live in harmony with nature in order to survive (Mean=3.64, SD= 0.56), the least mean value (Mean=1.89, SD=0.86) was for 'humans need not adapt to the natural environment because they can remake it to suit their needs'. The findings further revealed high environmental attitudes among the respondents, with 97.4% having favourable environmental attitudes and 2.6% unfavourable environmental attitudes, thus confirming the findings of Grybovych *et al.* (2005) with high environmental consciousness and understanding of the major ecological concerns as stated in the NEP scale.

Table 3: Respondents' Ratings of the Most Important Environmental Problems Currently Facing Nigeria (N=350)

Environmental Problems	Mean	Standard deviation
Loss of biodiversity	2.68	0.55
Waste Management	2.63	0.69
Desertification	2.49	0.71
Pollution	2.49	0.71
Urban Development	2.45	0.67
Global warming	2.34	0.77
Gas flaring	2.27	0.83
Flooding	2.25	0.81

Rated as Very important=3, Important=2, Not very important=1

Table 4: Respondents' Ratings of Environmental Attitudes (N=350)

Attitudinal Statements	Mean	SD
We are approaching the limit of the number of people the earth can support	2.61	1.12
The balance of nature is very delicate and easily upset	3.29	0.66
Humans have the right to modify the natural environment	2.58	1.01
Humankind was created to rule over the rest of nature	2.73	1.09
When humans interfere with nature it often produces disastrous consequences	3.44	0.65
Plants and animals exist primarily to be used by humans	2.69	1.01
To maintain a healthy economy we will have to develop a 'steady state' economy where industrial growth is controlled	3.53	0.59
Humans must live in harmony with nature in order to survive	3.64	0.56
The Earth is like spaceship with only limited room and resources	3.30	0.78
Humans need not adapt to the natural environment because they can remake it to suit their needs	1.89	0.86
There are limits to growth beyond which our industrialized society cannot expand	3.14	0.79
Mankind is severely abusing the environment	3.58	0.67
Categories of respondents' environmental attitudes	**Frequency**	**%**
33-48= High environmental attitudes	341	97.4
12-32= Medium environmental attitudes	29	2.6

Rated as Strongly Agree=4, Agree=3, Disagree=2, Strongly Disagree=1

To identify the dimensions of NEP scale, a principal axis factor analysis on the 12 NEP items was carried out (Table 5). The Kaiser-Meyer-Olkin (KMO) measured verified that the sample was adequate for the analysis, KMO=0.72. The initial analysis that was run to determine the Eigen values for each of the factors in the data found that four factors had eigenvalues that is over KMO criterion of 1 and in combination explained 58.86% of the variance. The items that cluster on the same factor suggest that factor 1 represents human over nature, factor 2 represents limits to growth, factor 3 balance of nature and factor 4 limits to human interference. This is consistent with Roberts and Bacon (1997) and Vozmediano and San Juan (2005). Uysal *et al.* (1994) however identified three factors of NEP scale which were humans over nature, balance of nature and limits to growth.

Table 5: Dimensions of the Respondents' Environmental Attitudes

NEP Items	Rotated Factor Loadings			
	Human over nature	**Limits to growth**	**Balance of nature**	**Limits to human interference**
Humans have the right to modify natural environment	0.84			
Humankind was created to rule over the rest of nature	0.86			
Plants and animals exist primarily to be used by humans	0.73			
Human needs not adapt to the natural environment because they can remake it to suit their needs	0.50			
We are approaching the limit of the number of people the earth can support		0.52		
Humans must live in harmony with nature I order to survive		0.59		
The earth is like a spaceship with only limited room and resources		0.72		
There are limits to growth beyond which our industrialized society cannot expand		0.64		
The balance of nature is very delicate and easily upset			0.61	
Mankind is severely abusing the environment			0.64	
When humans interfere with nature it often produces disastrous consequences				0.64
To maintain a healthy economy we will have to develop a 'steady state' where industrial growth is controlled				0.80
Eigenvalues	3.29	1.53	1.18	1.06
% of Variance	27.41	12.78	9.83	8.84
KMO	0.72			

In Table 6, chi-square tests revealed significant association of occupation, among the selected socio-demographic variables, with respondents' environmental attitudes (χ^2=786.53, p<0.01). Respondents' gender, education, membership of environment-related NGOs, age and income were not significantly associated with environmental attitudes, contradicting the findings of MacMillan *et al.* (1997) on gender, education, income and age relationships with holding environmental beliefs. These could have resulted from differences in socio-economic background of the respondents in this study from that of the previous studies. These findings also differ from Luzar *et al.* (1998) that established significant and consistent correlation between education, age and environmental attitudes and Ogunjinmi *et al.* (2012) that revealed significant relationships between sex, education and environmental attitudes. The most important variable, among the selected trip characteristics, was being a day or night tourist when environmental attitudes of the respondents are considered (χ^2= 38.14, p<0.01). Other trip variables such as frequency of visit, group size, and length of stay were not significantly related to attitudes (Table 7). Overnight stay could be a factor relating to attitudes probably due to the fact that the ecotourists would have opportunity to interact with nature and environmental resources thereby generating favourable feelings towards the environment.

Table 6: Relationships between Respondents' Socio-demographic Factors and their Environmental Attitudes (N=350)

Variable	χ^2 value	P	Decision
Gender	24.71	0.13	NS
Education	103.61	0.93	NS
Occupation	786.53	0.00	S
Membership of environment-related NGOs	24.31	0.15	NS
	Correlation Value (r)		
Age	0.05	0.33	NS
Income	-0.02	0.68	NS

Table 7: Relationships Between Respondents' Visit Characteristics and their Environmental Attitudes (N=350)

Variable	χ^2 value	P	Decision
Frequency of visit	47.48	0.10	NS
Day/overnight visit	38.14	0.00	S
	Correlation value (r)		
Group size	0.03	0.54	NS
Length of stay	-0.10	0.06	NS

A linear, semi-log and double log models using environmental attitudes as the dependent variable and some selected socio-demographic and trip variables as explanatory variables were fitted to the data. Contrary to expectation, many explanatory variables were not significant. The resulting models produced R^2 of 0.48, 0.52 and 0.56 respectively indicating that the independent variables included in the models did not explain environmental attitudes of the ecotourists entirely, but contributed significantly. In the linear and semi-log models, gender ($\beta=0.80$, $p<0.05$), membership of environment-related NGOs ($\beta=0.13$, $p<0.05$) and length of stay ($\beta=0.11$, $p<0.05$) were significant predictors of ecotourists' environmental attitudes. However, in the double log model, only membership of environment-related NGOs was significant (Table 8). The results thus revealed a strong relationship between independent variables and dependent variable, i.e. environmental attitudes.

Table 8: Regression Models Showing the Predictors of Environmental Attitudes of the Ecotourists

Independent variables	Linear B	Linear T	Semi-log B	Semi-log t	Double log B	Double log t
Socio-demographic characteristics						
Age	0.01	0.58	0.06	1.06	0.05	0.94
Gender	0.80	2.43*	0.11	2.07*	0.10	1.85
Education	-0.17	-0.91	-0.05	0.93	-0.04	-0.76
Occupation	0.01	0.13	0.01	0.22	0.03	0.46
Income	-0.04	-0.51	-0.02	-0.44	-0.03	-0.53
Membership of environment-related NGOs	0.13	2.43*	0.03	2.65**	0.04	2.37*
Trip characteristics						
Frequency of visit	0.03	0.50	0.02	0.41	0.02	0.39
Group size	0.03	0.57	0.04	0.71	0.03	0.50
Length of stay	0.11	2.10*	0.12	2.17*	0.09	1.57
Day/overnight stay	-0.05	0.97	-0.06	-1.06	-0.05	-0.96
Constant	35.97	44.49**	3.55	203.17**	3.58	427.28**
R	0.35		0.39		0.41	
R square (R^2)	0.48		0.52		0.56	
Adjusted R^2	0.24		0.26		0.28	
Standard Error	0.95		0.87		0.09	
R^2 change	0.48		0.52		0.56	
F change	4.51		4.72		5.60	
Sig.	0.034		0.030		0.019	

*$P<0.05$ **$P<0.01$

Conclusion and Recommendations

The study was conducted in order to determine the level of ecotourists' environmental attitudes and also to identify the socio-demographic and trip characteristics relating to their attitudes. The ecotourists viewed loss of biodiversity as the most pressing environmental problem currently facing Nigeria contrary to climate change that was reported in global environmental survey. This is not surprising considering what they could have observed during visitation to the parks .i.e. in terms of low population of wild animals compared to Southern and Eastern African countries and visible deforestation and habitat alterations outside the protected areas.

The study contributes to ecotourism research by adapting ecotourism segmentation using environmental attitudes. The basic fundamental idea is to use tourism segmentation approach to attract certain kind of ecotourists, particularly, with high environmental attitudes. Two segments of ecotourists were identified based on their total score on NEP scale: favourable environmental attitudes and unfavourable environmental attitudes. The results of this study offer some interesting findings for ecotourism managers in the parks. The managers may segment their market based on tourists that exhibit favourable environmental attitudes, and further refine the segment using socio-demographic and trip characteristics. It can thus be concluded, based on the findings from this study, that the identified segments are defined by different levels of environmental attitudes, and could be further categorised based on different range of socio-demographic and trip characteristics that were significant in the regression models.

The level of attitudes exhibited through the NEP scale confers greater responsibility on the management of the parks, specifically in terms of sustaining high environmental quality expected by the tourists, a situation which is currently below par with national parks in Eastern and Southern African countries. The favourable environmental attitudes also have other managerial implications. It could provide future public support to conservation activities within the parks and other protected areas. The support could be in terms of political goodwill, governmental policy supports for conservation and awareness among the general public.

Further research investigating tourist environmental attitudes in Nigeria's protected areas could contribute valuable insights not discovered from the current study. For instance, ecotourists' environmental attitudes using visitation motives, tourists' preferences, activities engaged, lifestyle and values should be investigated.

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