

## **Determinants of tourists' willingness to pay for conservation of ecotourism destinations: A case study of Ikogosi Warm Spring Resort, Nigeria**

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**ABSTRACT:** Tourist WTP was estimated using the contingent value method for conservation and protection of Ikogosi Warm Spring Resort in Ekiti State, Nigeria. The Warm Spring is one of Nigeria's most beautiful environments, attracting a big number of tourists each year and serving as a significant ecotourism development location. In order to evaluate if demographic characteristics, awareness of natural resource conservation, tourist behavior, motivation, and satisfaction affect WTP, a face-to-face survey employing a questionnaire was done with two groups of tourists, domestic and international visitors to the site. The maximum amount that tourists were willing to pay was computed using the mean and median values. Multiple linear regression analysis was used to determine the factors that influence tourists' WTP. For domestic tourists, the mean and median maximum amount they were willing to pay was US\$2.57 and US\$2.37 respectively, and for international tourists, US\$1.27 and US\$1.00. Age, education, income, domicile, and nationality all had an impact on the tourists' WTP, according to the research. It has been suggested that the site's management may use these elements to segment tourists for marketing purposes in order to secure the site's long-term viability.

## **Disposição dos turistas a pagar pela conservação de destinos de ecoturismo: um estudo de caso do Ikogosi Warm Spring Resort, Nigéria**

**RESUMO:** A DDP turística foi estimada usando o método de valor contingente para conservação e proteção do Ikogosi Warm Spring Resort no estado de Ekiti, Nigéria. As fontes termais são um dos ambientes mais bonitos da Nigéria, atraindo um grande número de turistas todos os anos e servindo como um importante centro de desenvolvimento do ecoturismo. A fim de avaliar se as características demográficas, consciência sobre a conservação dos recursos naturais, comportamento do turista, motivação e satisfação afetam a DDP, uma pesquisa face a face utilizando um questionário foi realizada com dois grupos de turistas, visitantes nacionais e internacionais do local. O valor máximo que os turistas estavam dispostos a pagar foi calculado usando os valores médios e medianos. A análise de regressão linear múltipla foi usada para determinar os fatores que influenciam a DDP dos turistas. Para turistas domésticos, a quantia máxima média e mediana que eles estavam dispostos a pagar era US\$2.57 e US\$2.37, respectivamente, e para turistas internacionais, US\$1,27 e US\$1,00. Idade, escolaridade, renda, domicílio e nacionalidade, todos impactaram na DDP dos turistas, de acordo com a pesquisa. Foi sugerido que a gestão do local pode usar esses elementos para segmentar turistas para fins de marketing, a fim de garantir a viabilidade do local a longo prazo.

## Introduction

Warm springs and waterfalls are widely distributed all over the world and significantly found across Nigerian's landscape. Warm springs and waterfalls are pivotal to ecotourism development in Nigeria as they are visited by thousands of nature enthusiasts every year. Warm springs and waterfalls are valuable for the protection of their unique ecosystems, vegetation and wildlife as well as avian populations. They are also known for traditional and religious activities. In most cases, there are traditional and religious beliefs and histories associated with waterfalls and warm springs, including potency for health, spiritual cleansing, fertility and warding off of evil spirits among others. Warm springs and waterfalls are also important source of employment, livelihood, and income generation activities through ecotourism.

Ever increasing number of destinations have opened up and invested in tourism, turning into a key driver of socio-economic progress through export revenues, the creation of jobs and enterprise and infrastructure development (UNWTO, 2013). Tourists expenditure on accommodation, food, drink, local transport, entertainment and shopping, is an important contributor to the economy of many destinations, creating much needed employment and opportunities for development (UNWTO, 2013).

The demand for recreation and leisure in water-based recreation sites such as warm springs and waterfalls is increasing. The increase in visitation and activities exert concomitant pressure on the fragile ecosystems of springs and waterfalls coupled with inadequate financial resources available to protect and maintain the sustainability of the sites, and policy supports, their effectiveness as protected areas have been affected. The current system of finding through government budget and entrance fees and grossly inadequate to address management effectiveness and sight protection which are germane for sustainability. Kamri et al. (2017) posted that entrance fee would not give sufficient contribution to manage the cost of conservation and this problem might affect sustainability for the next generation. Other past studies such as Chen and Jim, (2012) also highlights the shortage or inadequacy of funds and others site factors, including congestion, littering, and wildlife disturbances, and these have been threatening in the sustainability of many ecotourism sites. Ecotourism sites are facing a decrease in fund allocation for maintenance and other developmental projects (Adamu et al., 2015).

Estimating the economic value of natural resources that have no market value is one of the common methods used to determine value of goods in terms of social and environmental benefits (Serefoglu, 2018). Although many natural resources are valued on the market, resources supplied by environmental goods (such as forests) do not usually have an actual monetary value because of the

difficulty in evaluating them. But since they do provide a certain utility to individuals, an economic value can and should be attributed to them (Loomis et al., 2000, Baranzini et al., 2010). Among various valuation measures, individuals' willingness to pay (WTP) through the use of a contingent valuation method has been preferred in economic valuations of non-market environmental goods over other valuation techniques (Loomis et al., 2000, Baranzini et al., 2010, Boyle et al., 1993, Loomis and Walsh, 1997, Mitchell and Carson, 1989). The CVM is one of the stated preference methods which determine economic values by analysing consumer behaviour in carefully designated hypothetical markets (Hanley and Czajkowski, 2019). An economic valuation is a tool that can be used to calculate the benefit cost of trade-off (Anna and Dicky, 2017). Identifying the WTP would enable the comparison of costs and benefits which are important for making environmental policy decisions. According to Lestari et al. (2020), in regional development decision, measures of WTP and/or WTA allow a monetary value to be placed on the environmental gain or loss, which is an estimate on the underlying gain or loss in utility to the individual (Hanley and Czajkowski, 2019).

Previous studies indicate that socio-demographic variables (Kosz, 1996, Lindsey and Holmes, 2002, Bal and Mohanty, 2014, Ezebilo, 2016), and tourist behaviour (Kamri et al., 2017, Adamu et al., 2015) influenced WTP. Differences in people's WTP may be influenced by certain demographic and psychographic factors. Therefore, it is important to consider these factors when implementing a potential fee policy, as entrance fees may have significant equity consequences. The most prominent equity argument lies around whether fees discriminate against low-income tourists. It is logical to assume that WTP is, at least to some extent, affected by tourists' ability to pay. A problem arises when those with low ability to pay may still value a visit highly. Although, the effect of income on WTP has been widely debated, the answer to this issue is still unclear (Fedler and Miles, 1989). A number of studies on outdoor recreation activities have found that low-income users are more sensitive to price changes than high-income users (More and Stevens, 2000, Reiling et al., 1992). Williams et al. (1999) found that charging entrance fees has little distributional impact on different income groups in the natural resource context, as the income levels tend to be high among those who visit the natural sites.

According to the Fishbein and Ajzen model (1975, cited in Mitchell and Carson, 1989), behavioural intentions like WTP are a function of attitudes, which are influenced by behavioural experiences. Membership in environmental organisations and attitude towards environment

protection has been found to be closely related to WTP (Carlsson and Johansson-Stenman, 2000, Clinch and Murphy 2001). Laarman and Gregersen (1996) state that what consumers expect to pay is related to what they have paid before. The findings of Kerr and Manfredi (1991) from a study of back country hut users in New Zealand's parks suggest that previous fee-paying behaviour affects paying intentions. Studies on the effects of previous visitation to a particular site or to a number of sites on WTP have, however, shown mixed results (Adams et al., 1989, Williams et al., 1999). It is reasonable to assume that people from different countries may be willing to pay different amounts as a result of different attitudes towards and experiences of paying entrance fees to natural attractions and having travelled different distances to an area. Few studies have explored differences in WTP between nationalities. However, nationality was found to have a significant effect on WTP for the whale-watching experience in an Australian marine park (Davis and Tisdell, 1998). It has also been found that people are likely to be willing to pay more for entering a site if they have travelled a long distance to the site (Schroeder and Louviere, 1999).

As for other socioeconomic variables, differences in WTP according to gender have been reported by a few studies, but the results have been inconclusive (Carlsson and Johansson-Stenman, 2000, More and Stevens, 2000). Evidence also shows that highly educated individuals and younger people have been found to be more likely to support the fee-paying policy for natural attractions whilst age seems to be negatively related to WTP (Bowker et al., 1999). As for attraction attributes, in their classic writings on the economics of outdoor recreation, Clawson and Knetsch (1966) stated that demand for unique areas with a long travel distance and outstanding scenic or recreational opportunities tend to be price inelastic. A more elastic demand curve can be expected for smaller or modest types of attractions that are closer to the population centres.

The application of CVM in Nigeria's conservation and ecotourism sector is limited. Few of such studies include Adamu et al. (2015), Moyib et al. (2016), and Adetola and Adedire (2018). Despite the importance of understanding the value of warm springs and waterfalls to guide policy on water-based recreation ecotourism development, there has not been real assessment of warm springs and waterfalls tourists' WTP. This present study contributes to knowledge gap by estimating tourists' WTP for protection of water-based ecotourism recreation site, specifically warm spring and investigates the effects of socio demographic variables, (including gender, age, education, occupation, residence, visit and motivation, travel behaviors, and tourists' satisfaction on WTP. Conservation without funds, cannot succeed (Kidder and Spear, 2011.), thus, it is imperative that tourism

generates funds for protected area management (Moyib *et al.*, 2016). According to Martinez-Paza et al. (2014), the WTF survey has been proven to be indispensable tool for decision making and can promote public participation throughout the process, especially in African countries where there are additional constraints. In Nigeria, the propensity for an individual to be willing to pay for protection of natural resources is further constrained by socio-economic background such as income and education, beliefs about individual roles in conservation, travel behaviour and satisfaction with the destination.

Ikogosi Warm Spring is the only warm spring located in the Southwest of Nigeria and one of the most popular ecotourism destinations in Nigeria. Ikogosi Warm Spring is one of the beauties of Nigeria in terms of natural endowment. The water runs down a hilly landscape where the warm springs forms a confluence with other cold springs from adjoining hills and merges into one continuous flowing stream at 70 degrees. The vegetation of this resort is a highly thick forest. This natural and rich vegetation is closely maintained and protected from arbitrary deforestation. The area covered by this resort is about 31.38 m sq. metres and it is highly protected from erosion by tall and evergreen trees.

#### Material and Methods

The study area is located in Ikogosi Ekiti town in Ekiti West local government area, Ekiti state in southwest Nigeria (Figure 1). It is about 27.4 km east of Ilesha (Osun State), and about 10.5 km southeast of Efon Alaaye (Ekiti State). It is located just north of the 7° 35'N latitude and slightly west of the 5° 00' E longitude. The elevation of the general area is between 457.0-487.5miles. Rainy season is between April–October and the dry season is from November–March. Temperature ranges between 21° and 28°C with high humidity. The south westerly wind and the northeast trade winds blow in the rainy and dry (Harmattan) seasons respectively. Tropical forest exists in the south, while savannah occupies the northern peripheries.

Our survey was conducted on two distinct tourist groups. The first group was domestic tourists and the second group was international tourists. We used an onsite intercept survey to sample the tourists to the site. Intercept method is more cost effective at targeting tourists (Wu et al., 2018). We sampled 300 tourists at the Warm Spring Resort from March to August 2017. This period is noted for Easter, End of Ramadan, and Eid Mubarak festivals, and was selected to ensure high number of respondents. We used 2 days per week and every weekend to collect the data in order to ensure representativeness of the tourist population. The week days earmarked by government for the celebration of any of the above festivals were selected to represent the two days.

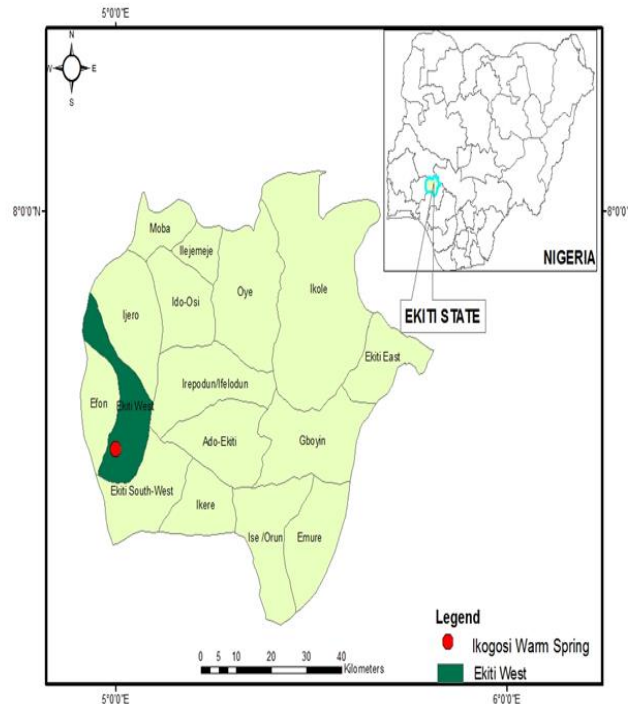


Figure 1: Map of Ekiti State, Nigeria indicating the study location. Source: Ogunjinmi and Binuyo, 2018.

The study involved questionnaire survey. We designed the instruments in accordance with suggestions by Johnston et al. (2017). The instrument was subjected to pre-testing which consisted of 20 respondents at the nearby waterfalls (Arinta Waterfalls). We used the pretest to refine the valuation scenario by ensuring that the survey instrument was readable and selecting appropriate values for eliciting WTP. We developed the survey instrument after an extensive literature review on WTP. The survey instrument was divided into four sections. Section one presents a variety of questions on tourists' sociodemographic variables. In the second section, questions relating to tourists' awareness of natural resources conservation and travel behaviour, motivation, and what attracts tourists to the site were asked. The third section focused on tourists' satisfaction with the services and conditions of the site while the fourth section was on contingent valuation questions.

We presented to the tourists, orally, a visualization scenario on what could happen to the site if continued protection of the site is in abeyance due to poor funding. This was done to convey changes that could occur without support for the site management. Visualisations have been adopted to convey landscape changes (Madureira et al., 2011, Verbic et al., 2016, Kipperberg et al., 2019, Einarsdottir et al., 2019, McDougall et al., 2020). To determine the WTP, the respondents were asked for the maximum amount they were willing to pay and were presented with general monetary amounts

as suggested by Tian et al. (2011). Factors determining tourists' decision for recreation in Ikogosi Warm Spring Resort was rated as 5=extremely important, 4=very important, 3=important, 2= less important, and 1= not applicable/does not matter. On the other hand, tourists' degree of satisfaction with the level of services and conditions in the Resort was rated as 5=excellent, 4=good, 3=fair, 2=poor, 1=not used.

#### Data Analysis

We calculated the mean and median WTP for domestic and international tourists. We further used multiple linear regression for the determinants of tourists WTP as used by Tisdale and Wilson (2004) and Kosz (1996). In this present study, the dependent variable was the maximum amount domestic and international tourists are willing to pay while the explanatory variables include socio-demographic characteristics (gender, age, education, income, occupation and residence), motivation and what attracted them to the site, tourists behaviour (visit frequency and group characteristics), and satisfaction with the sites. We hypothesized that WTP for the protection and conservation of the sites by individuals (tourists) are affected by a variety of factors, including sociodemographic, motivation, travel behaviour and satisfaction. The functional form of WTP for the site conservation is as follows:

WTP<sub>ij</sub> = f (GE, AG, ED, OC, IN, RE, NA, AW, MO, VF, GC, SA).

Where: GE=Gender, AG=Age, ED=Education, OC=Occupation, IN=Income, RE=Residence, NA=Nationality, AW=Awareness of natural resources conservation, MO= Motivation for visit, VF=Visit frequency, GC=Group characteristics, SA= Satisfaction.

## Results and discussion

### *Socio-demographic Information*

In Table 1, socio-demographic information of the respondents are presented. The study shows that 58% of the tourists were male, while 42% were female; This is consistent with 2006 Census (NPC, 2006) and estimates by CIA (CIA, 2014), which put the sex ratio of the country's total population at 1.06/male(s)/female. It is also in agreement with the findings of Vujko and Gajić (2014) that reported 53.6% as male. Majority (64%) of the tourists were between 21-40 years of age, with the mean and median age of 33.8 years and 30 years respectively. This is in agreement with Nigeria age distribution in 2008 that indicated that the dominant age group was 15-64 years (NMEC, 2008). It is also consistent with Reynisdottir et al. (2008) in Gullfoss waterfall and Skaftafell National Park, that reported that majority of the respondents were in the age group of less than 40 years. However, the result is inconsistent with the findings of Vujko and Gajić (2014) that showed that majority of the tourists were well above 65 years of age. In addition, 49.3% and 43.3% of the tourists were married and single respectively. This is in conformity with the findings of Ghanbarpour et al. (2011), in Baba Aman Recreational Park, which observed that majority (68%) of the tourists were married. Majority (78.7%) of the tourists had tertiary education, if the literacy rate were used as an index of level of education; the level of education of the respondents was higher than the estimated literacy rate of 61.3% (CIA, 2014).

Majority (66 %) were Christians, which is inconsistent with the CIA data that estimated that Muslims in the country were (50%) of the total population of the country (CIA, 2014). Majority (34%) and 23.3% of the tourists were self-employed and students respectively. This implies that self-employed and students frequent the site more than other categories of occupation. The majority of the tourists (73.4%) were high-income earners, earning ₦100,000 (US\$237.30) or more, which may explain why they are prepared to pay the environmental user fee. In Jigme Dorji National Park, Kissick (2010) found that 14.8% earned between US\$80, 000 and US\$149, 000, and 42.0% made between US\$150, 000 and US\$499, 999. Riley et al. (2006) found that the average income in St Eustatius Marine Park and Quill/Boven National Park was around US\$71,000. In addition, Reynisdottir et al.

(2008) reported a mean annual income of around £35, 000 in Gullfoss Waterfall and Skaftafell National Park, which was inconsistent with Vujko and Gaji (2014), Fruka Gora National Park, who reported earnings of 31.00 to 50.00 dinars (US\$0.33 to US\$0.53) as monthly income. Majority (64 %) of the tourists resides outside Ekiti State with only 28 % residing within Ekiti State, 4.7% of the tourists were foreigners. This implies that Ikogosi Warm Spring is a very popular tourists' destination.

Table 1: Socio-demographic information of respondents (n=300)

Demographic Information	Frequency	Percent
<b>Gender</b>		
Male	174	58.0
Female	126	42.0
<b>Age (years)</b>		
1-20	30	10.0
21-40	192	64.0
41-60	74	24.7
>60	4	1.3
Mean = 33.75		
Median = 30.00		
<b>Level of Education</b>		
Primary	24	8.0
Secondary	40	13.3
Tertiary	236	78.7
<b>Occupation</b>		
Civil Servant	56	18.7
Self Employed	102	34.0
Student	70	23.3
Private Sector	50	16.7
Unemployed	22	7.3
<b>Income (Naira)</b>		
1000 – 19, 999	62	20.5
20, 000 – 39, 999	8	2.8
40, 000 – 59, 999	4	1.3
60, 000 – 79, 999	0	0
80, 000 – 99, 999	6	2.0
100, 000 and Above	220	73.4
<b>Residence</b>		
Within Ikogosi Metropolis	8	2.7
Within Ekiti State	86	28.7
Outside Ekiti State	192	64.0
Outside Nigeria	14	2.7
<b>Nationality</b>		
Nigeria	286	95.3
Ghana	4	1.3
South Africa	8	2.7
Benin	2	0.7

*Tourists' Awareness of Natural Resources Conservation and their Travel Behaviour*

Table 2 depicts tourist understanding of nature protection in Ikogosi Warm Spring and Resort. The majority of people (73.3%) were aware of the importance of natural resource conservation, according to the survey. This could be as a result of high level of education of the respondents. The majority of visitors (52.7%) have been to Ikogosi Warm Spring Resort before, while 47.3% are first-time visitors, an indication that the visitors to the site are loyal visitors. The vast majority of visitors (73.3%) come on weekends. This could imply that they are only permitted to engage in leisure and recreation on weekends, unless the weekdays are designated as public holidays. According to the survey, 28.7% of tourists arrive with an organized group, while 21.3% visit with family members, indicating that group visits are common among visitors to the site.

Table 2: Tourists' awareness of natural resource conservation and travelling behaviour

Awareness of natural resources conservation	Frequency	%
Yes	220	73.3
No	80	26.7
<b>Visit type</b>		
First visit	142	47.3
Repeat visit	158	52.7
<b>Period of visit</b>		
Visit on Weekend	220	73.3
Visit on Week day	80	26.7
<b>Group characteristics</b>		
Visiting alone	36	12.0
Visiting with spouse	54	18.0
Visiting with family members	64	21.3
Visiting with friends and relatives	60	20.0
Visiting as an organized group	86	28.7

*Tourists' visit motivation*

Figure 2 depicts the reasons for tourists' visits to Ikogosi Warm Spring and Resorts. It reveals that 44% came to view the sights, 33.8% came to rest, and 31.3% came to have a good time, which implies that sight seen was the major motivation to visitation to the site.

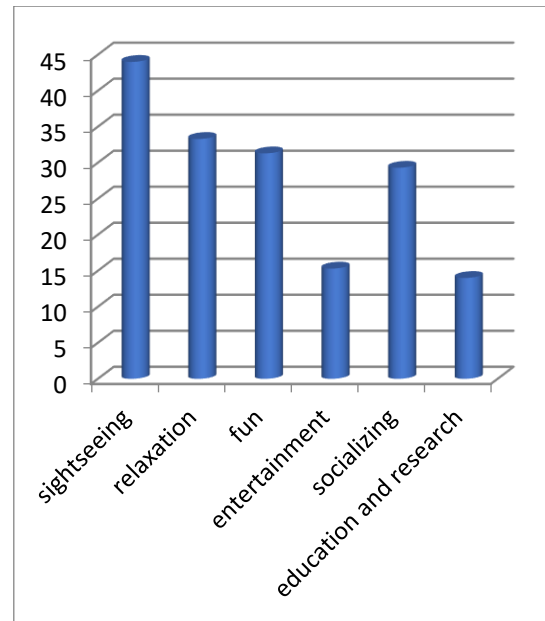


Figure 2: Distribution of tourists according to their visit motivation

*Factors determining tourists' decision for recreation in Ikogosi Warm Spring Resort*

The parameters that influence tourists' recreation decisions in the Warm Spring Resort range from 3.92 to 4.41 (Table 3). According to tourists, the most important factors are habitat condition and wildlife diversity (mean=4.41). The least important element (mean=3.92) is proximity to the dwelling (Table 3), implying that the habitat and wildlife must be safeguarded from deterioration in order for the site to continue to be visited.

Table 3: Factors determining tourists' decision for recreation in Ikogosi Warm Spring Resort

Services and Conditions	Mean	Standard Deviation
Condition of habitat and diversity of wildlife	4.41	0.77
Cleanliness of the environment (water quality, air quality)	4.23	0.69
Condition, quality and variety at tourist site	4.25	0.84
Proximity to residence	3.92	0.86
Facilities and amenities	4.05	0.90
Cost/affordability	4.00	0.91

*Tourists' satisfaction with the level of services and conditions in Ikogosi Warm Spring Resort*

Tourist satisfaction with the level of services and conditions at Ikogosi Warm Spring Resort ranged from 3.87 to 4.40 (Table 4). The site's accessibility provides the highest level of satisfaction, while the food provides the lowest level of satisfaction (Table 4). This level of

satisfaction was higher than what Ogunjinmi and Binuyo expressed (2018). While tourists in this study were most satisfied with accessibility, Ogunjinmi and Binuyo (2018) found that tourists were most satisfied with their surroundings.

Table 4: Tourists by their degree of satisfaction

Service and Conditions	Mean	Standard Deviation
Accessibility	4.40	0.66
Road Conditions	4.18	0.79
Cleanliness of Swimming pool water/bathing water and surrounding environment	4.21	0.79
Condition of Habitat and Diversity of Wildlife	4.14	0.80
Condition of Tourist sites	4.22	0.79
Facilities and Amenities	4.15	0.83
Accommodation	4.07	0.89
Food	3.87	1.05
Overall Experience	4.07	0.84

*Domestic and foreign tourists' willingness to pay for conservation and protection of IKogosi Warm Spring and remittance medium*

Table 5 shows the maximum sum that domestic and international tourists are ready to pay for the site's conservation and protection. It demonstrates that the majority of domestic tourists (37.1%) and international tourists (28.6%), respectively, are willing to pay a maximum range of ₦501 (US\$1.19) and ₦1,000 (US\$2.37) and US\$21 and US\$25 respectively. Domestic tourists are willing to pay an average of ₦1084.67 (US\$2.57). International tourists, on the other hand, are willing to pay an average of US\$1.27. Less than half of the tourists (46.0%) were willing to pay the fee at the site's entrance point (Table 6). This is in line with findings from Ijeomah and Herbert (2012) in Assop fall, who found that all (100%) of the respondents were willing to pay ₦100 and ₦50 (US\$0.60 and US\$0.30) for adults and children, respectively. Tourists were willing to pay ISK 508 (US\$4.20) in Gullfoss Waterfall and Skaftafell National Park, according to Reynisdottir et al. (2008). In Fruka Gora National Park, Vujko and Gaji (2014) found that 78.3% of respondents were willing to pay between 50 and 150 dinars (US\$0.53 to US\$1.60) as an environmental user fee. The amount stated by Moyib et al. (2016) in Oyan Dam, Nigeria, for domestic tourists was higher.

Table 5: Percentage distribution of domestic and international tourists by their maximum amount they are willing to pay

Domestic tourists		International tourists	
Amount	%	Amount	%
₦50-500	35.0	\$1-15	14.3
₦501-1000	37.1	\$16-20	14.3
₦1001-1500	10.5	\$21-25	28.6
₦1501-2000	7	\$26-30	14.3
₦2001-2500	7.7	\$31-35	14.3
₦2501-3000	2.1	>\$35	14.3
>₦3000	0.6		
Mean=₦1084.67		Mean=	
Median= ₦1000		US\$1.27	
		Median=	
		US\$1.00	

Table 6: Percentage distribution of tourists by their preference of remittance of payments

Remittance medium	Frequency	Percentage
Paid as part of bill of the resort based during a visit	16	5.3
Paid separately upon registration at the resort	42	14.0
Paid as part of the Airport shuttle service	10	3.3
Paid as part of the Accommodation services	24	8.0
Paid separately upon visiting the Warm Spring	56	18.7
Paid at the entry point	138	46.0
Online payment	14	4.7

*Determinants of Tourists WTP for Conservation of IKogosi Warm Spring*

The elements that influence tourists' propensity to spend are shown in Table 7. Domestic tourists have a coefficient of multiple determination of 0.29, which means that age, education, income, and where they live contribute for about 29% of the difference in their willingness to pay. Because the coefficient of multiple determination for international visitors is 0.94, the tourists' residence and nationality account for roughly 94 percent of the variation in their willingness to spend. Hadker et al. (1996) found that willingness to pay was substantially linked with income, occupation, and

gender in Borivli National Park, India. Mamat et al. (2013) found that age, income, and nationality had a substantial impact on tourists' willingness to pay in Malaysia's Pulau Redang Marine Park. According to Dutta (2020), educational attainment, distance, and income level have a substantial impact on willingness to pay for natural resource

conservation. According to Kamri et al. (2017), tourists' willingness to pay was influenced by their age, education, and previous trips. WTP was also found to be influenced by income and geography, according to McDougall et al. (2020).

Table 7: Determinants of tourists WTP for conservation of Ikogosi Warm Spring Resort

Independent Variables	Domestic tourists		International tourists	
	Beta ( $\beta$ )	t-value	Beta ( $\beta$ )	t-value
Gender	19.97	0.17	-0.44	-1.64
Age	15.41	2.26*	-0.02	-1.36
Education	397.16	2.54**	-0.02	-0.06
Occupation	79.01	0.52	0.39	1.11
Income	0.03	2.40*	1.65	0.54
Residence	1086.83	2.97**	-6.63	-5.41**
Awareness of natural resources conservation	-225.17	-1.72	-0.33	-1.05
Visit frequency	139.26	1.25	-0.10	0.19
Group characteristics	-39.46	-0.83	0.03	0.29
Visit motivation	65.12	1.91	0.01	0.15
Satisfaction with the site	-16.63	-1.40	0.03	0.97
Nationality	-	-	-23.38	-24.90**
Model Summary	R=0.54, R <sup>2</sup> =0.29, Adj R <sup>2</sup> =0.23		R=0.97, R <sup>2</sup> =0.94 Adj R <sup>2</sup> =0.93.	

\*P<0.05 \*\*P<0.01

### Conclusions

According to the tourists' personal characteristics, the majority were well educated, having completed tertiary education; they were also high-income earners who were aware of the need to conserve natural resources. Approximately half of the tourists were returning visitors who came on a weekend and in a group. The main reason for tourists' visits was sight-seeing; the condition, quality, and variety of the site were the primary factors for visits; and tourists found the site's accessibility to be the most satisfying. Domestic tourists were willing to pay an average of ₦1,084.67 (US\$2.57) per person, with international visitors willing to pay US\$1.27 per person. According to the study, domestic visitors' WTP for site conservation is influenced by their age, education, income, and residence, but international tourists' WTP is influenced by their residence and nationality. The implication of these findings is that the majority of Nigerians, regardless of age, were eager to conserve the site through their WTP. According to the study, tourists with a higher education are more inclined to support conservation and hence have a higher WTP.

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