Visitors Perception and Satisfaction at the University of Ibadan Zoological Garden: Implications for the Progression of Zoological Tourism and Augmentation of Managerial Strategies

[1]Ayanniyi, O.A., [1]Ayeni, O.H., [1]Akinyemi, I.G., [1]Ibitoye, O.S., [1]Layade, K.T.,[1]Wealth, A.S.,
[2]Uloyok,O.J., [2]Chiawa,O.C.

[1]Forestry Research Institute of Nigeria, P.M.B 5054 Jericho Hills Ibadan
[2]Federal College of Forest Resources Management, Ishiagu, Ebonyi State
Corresponding Author: ayanniyioluwadamilola@gmail.com, 08055135826

ABSTRACT

Tourists experience and perception remains potent factors for the identification of satisfaction towards tourist places. The University of Ibadan Zoological Garden stands as a thriving hub of biodiversity conservation and education, attracting diverse visitors worldwide. This paper therefore explores the dynamics of visitor engagement within this haven.Information was collected from visitors and staff at the University of Ibadan zoological garden through structured questionnaire and in-depth interview. In all 250 copies of questionnaires was administered to visitors and 222 was retrieved. Data were analysed with the use of descriptive statistics and inferential analysis which include the use of tables, chart and chi-square test respectively. Results analysed revealed that majority of the respondents were male 54.5% and they were in the age range 21 to 30. They visit the zoo mostly for recreation and relaxation. A high percentage of respondents heard about the zoological garden through family and friends. Majority of the respondents ages had no significant effect on purpose of visit and means of hearing about the zoological garden (p>0.05). The results revealed that purpose of visit had significant effect on the level of satisfaction and their expectations being met (p<0.05). The zoological garden saw its highest visitor turnout during festive periods,these visitors comprise a tapestry of local and international enthusiasts, nature lovers, families, and academicians. However, visitor satisfaction was marred by concerns about animal population, dilapidated cages, animal welfare, high ticket fees, untidy environment, and the absence of iconic animals like lions, elephants, and chimpanzees. The University of Ibadan Zoological Garden serves as a prominent tourist attraction within the city of Ibadan, drawing in large number of visitors daily from various regions across Nigeria.

Keywords: Zoological garden, University of Ibadan, Animals, Visitors, Satisfaction, Perception

Introduction

The roots of modern zoos reach back through the annals of history, drawing from a rich tapestry of human fascination with the animal kingdom (Baatay and Hardonim-Fugier, 2002). To understand the trajectory of zoos, we must venture beyond our century, back to ancient Egypt and China, where the very concept of exhibiting live wild animals for public amusement was first conceived (Fa*et al.,* 2011).These early collections, known as menageries, were more than just repositories of exotic fauna. They were symbols of prestige and power, captivating the imaginations of those who beheld them (Omonona and Ayodele, 2011). From Egypt to China, it was unanimously agreed that these curated collections existed primarily to

entertain (Holst and Dickie, 2007; Sterling *et al.,* 2007; Carr and Cohen, 2011).

The transformation from menageries to modern zoos took shape in the late 18th and 19th centuries, marking a pivotal moment in the history of humanity's relationship with the animal kingdom. Landmark establishments in London (1828), Amsterdam (1843), Berlin (1844), and Central Park, New York (1862), represented a dramatic shift (Hancocks, 2001). These public zoos, open to all, bridged the gap between entertainment and enlightenment (Koebner, 1994). Zoological gardens, as we recognize them today, are, in essence, a confluence of human history and our enduring fascination with the wild(Sterling *et al, 2007*). They have become an intrinsic part of wildlife tourism (Ojo, 2016). Within their confines, zoos serve a multitude of roles, each contributing to the broader canvas of nature conservation. Jamieson (1985) identified four key roles of zoos as: amusement, education, scientific research, and species preservation.

Amidst these roles, zoological gardens have risen to prominence as cherished destinations for a day out. In nearly every corner of the world, they stand as beacons of fascination, offering the urban populace a glimpse into the natural world (Van Linge, 1992).While zoos have retained their traditional role as recreational centers, they have also undergone a profound evolution, with conservation now occupying center stage (Reade and Waran, 1996; Puan and Zakaria, 2007; Falk *et al.,* 2007). With living, wild animals as their stars, zoos hold an unparalleled power of attraction that transcends books, films, and encyclopedias. The World Zoo Conservation Strategy (2013) notes that zoos reach hundreds of millions of urban-dwellers, many of whom have limited contact with nature, thereby serving as potent catalysts for public and political awareness regarding nature conservation.

Zoo tourism, a subset of wildlife tourism, emerges as an essential element, offering direct contact with wild animals in captive settings (CRC, 2001; Newsome *et al.,* 2005; CRC, 2008; Ajayi, 2017). In an era where tourism seeks authentic experiences, zoos have transformed from local attractions into global destinations (Frost, 2011).The perception and satisfaction of zoo visitors have garnered attention from many authors (Kim, 2014;Alarape *et al.*, 2015; Ojo,2016;Lynydo*et al.,* 2017; Mutangaa*et al.,* 2017). These studies recognize that tourists' experiences and perceptions wield significant influence over their satisfaction with tourist destinations.

Within this global context, this study was focused on University of Ibadan Zoological Garden, a prominent tourist centre within the Nigerian landscape. Originally founded in 1948 as a modest menagerie, it became a full-fledged zoological garden in 1974(Ojo, 2016). Over the decades, it has welcomed millions of visitors, offering a breath taking array of exotic species native to Nigeria's ecological zones(Adeleke, 2001). As a prominent attraction at the University of Ibadan, this zoological garden has become a nexus for recreation, relaxation, research, and education (UI Handbook, 2012).

In light of its historical significance and contemporary relevance, this study aims to delve into the intricate tapestry of visitor experiences at the University of Ibadan Zoological Garden. Through a comprehensive exploration of wildlife resources, visitor concerns, motivations, attendance trends, identified challenges, and proposed

improvements; with a view to illuminating the multifaceted dynamics of zoo tourism.

Materials and Methods

Study Area

University of Ibadan zoological garden is a closed zoo established in 1948 with most of the animals kept in enclosures (cages).The Zoological Garden is situated in the southeastern part of the university's campus. It spans between latitude N 07°26'576" to N 07°26'604" and longitude E 003°53'699" to E 003°53'700" covering about 3.5 square kilometers. The Awba stream meanders through the zoo, providing a natural drainage system. The Zoological Garden comprises of five distinct animal sections (carnivores, herbivores, a reptile house, large birds, and primates) serving dual purposes of species conservation and research as well as educational and entertainment value for visitors. Recreation facilities were also provided in the children playground unit of the zoo. Visitors are welcome in the zoo daily, operating 365 days a year, from 8:00 am to 6:30 pm
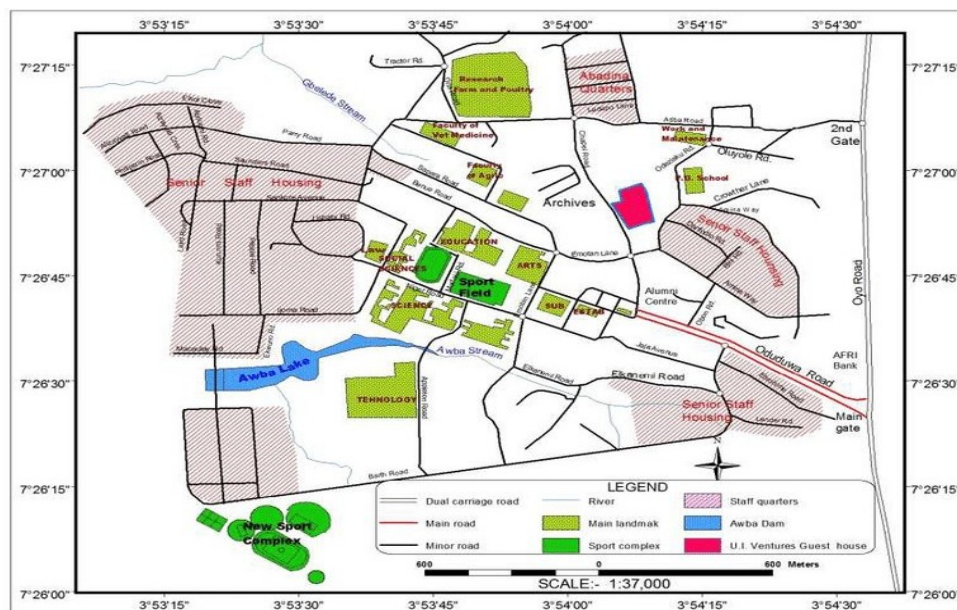

Figure 1: Map of University of Ibadan showing the location of the Zoological Garden

Data Collection

Data were collected through structured questionnaire randomlydistributed to both visitors and staff members at the University of Ibadan Zoological Garden. A visual survey of the study area was also conducted to document the wildlife species, facilities, and infrastructures in the zoo. Information regarding visitors' influx was acquired from the zoo's staff to ascertain visitation trends.

Sampling Intensity and Selection Approach

The selection of visitors for questionnaire administration employed a simple random sampling technique. The choice of the study area was purposively determined.The study

spanned twelve months, from September 2022 to July 2023, three days out of seven days in which the zoological garden operates was randomly selected to administer the questionnaire. A total of 250 questionnaires were administered to visitors in the University of Ibadan Zoological Garden, with 222 questionnaires successfully retrieved. An additional 22 copies of questionnaires were distributed to the zoo's staff.

Data Analysis

Computer analysis with statistical package for the social sciences (SPSS) software was used employed for the analysis. Descriptive analysisand inferential analysis (chi-square tests)was used in presenting data in tables.Visitors' satisfaction levels were assessed using a 7-point rating scale as follows extremely satisfied, moderately satisfied, slightly satisfied, neutral, slightly unsatisfied, moderately unsatisfied, extremelyunsatisfied

Result

Table 1 shows the result obtained from the demographic variables of the sampled respondents from university of Ibadan zoological garden. Out of the two hundred and twenty two questionnaire administered, 54.5% of the respondents were male while 45.5% were female. Majority of the respondents were singles (58.6%) while the married among them were 35.1%.The age range between 21-30 has the highest percentage (36.0%) followed by 11-20 (33.3%), this signifies that majority of the respondents were youths. This study also showed that 68.5% of the respondents were Christians. The respondents were mainly students (29.6%), followed by self-employed 26.1% and civil servants with 20.7% respectively. This implies that students visits the zoo more, this could be due to the fact that the zoological garden is located within the University premises. Majority of the respondents were literate with 70.3% having tertiary education, followed by secondary education 13.5% and the least were primary with 4.5%. In terms of nationality, most of the respondents were Nigerians (local visitors) with 93.2%.

Table 1:. **Socio-demographic characteristics of Visitors in University of Ibadan Zoological Garden**

Variables	Frequency (n=222)	Percentage (%)
Sex		
Male	121	54.5
Female	101	45.5
Marital status		
Single	130	58.6
Married	78	35.1
Divorced	8	3.6
No response	4	1.8
Age Range		
11-20	74	33.3
21-30	80	36.0
31-40	48	21.6

41-50	18	8.1
50 above	2	0.9
Religion		
Christianity	15	68.5
Islam	64	28.8
Others	4	1.8
Ethnic		
Yoruba	128	57.7
Igbo	40	18.0
Hausa/Fulani	14	6.3
Edo	10	4.5
Ijaw	4	1.8
Efik	9	4.1
Others	11	5.0
Education		
Primary	10	4.5
Secondary	30	13.5
Tertiary	156	70.3
Vocational	18	8.1
Occupation		
Student	66	29.7
Civil servant	46	20.7
Self employed	58	26.1
Researcher	21	9.5
Youth Corpers	16	7.2
Others	11	5.0
Nationality		
Nigerians	207	93.2
Non-Nigerians	13	5.9

Source: field work 2023

Checklist of animals at the University of Ibadan zoological garden

The Zoological Garden comprises of five distinct animal sections (carnivores, herbivores, a reptile house, large birds, and primates) (table 2) serving dual purposes of species conservation and research as well as educational and entertainment value for visitors.

Table 2: **Checklist of animals at the University of Ibadan zoological garden**

Name of Animal	Scientific name	Class	Number
Crown Crane	*Balearica pavonina*	Avian/Omnivore	1
African Gray Parrot	*Psitaccuse vithacus*	Avian/Granivore	2
Marabou Stork	*Leptoptilos crumenifer*	Avian/Carnivore	1
Guinea fowl	*Numida meleagris*	Avian/Granivore	1

Speckled pigeon	*Columba guinea*	Avian/Granivore	1
Barn owl	*Tyto alba*	Avian/Omnivore	1
White faced whistling duck	*Dendrocygna viduata*	Avian/Granivore	2
Laughing dove	*Streptopelia senagalensis*	Avian/Granivore	1
Ostrich	*Struthio camelus*	Avian/Herbivore	1
Hooded vulture	*Necrosyrtes monachus*	Avian/Omnivore	1
Palmnut vulture	*Gypophierax angolensis*	Avian/Frugivore	1
Peafowl	*Pavo cristatus*	Avian/Granivore	1
Brown pelican	*Pelicanus occidentalis*	Avian/Carnivore	1
Spur winged goose	*Plectropterus gambensis*	Avian/Ominivore	1
Mallard duck	*Anas platyrhynchos*	Avian/Granivore	1
Senegal parrot	*Poicephalus senegalus*	Avian/ Granivore	1
Yellow billed kite	*Milvus migrans*	Avian/ Granivore	1
Red-eyed turtle dove	*Streptopelia semitorquata*	Avian/Granivore	1
Emu	*Dromaius novacholiandiae*	Avian/Herbivore	1
Patas monkey	*Erythrocebus patas*	Mammal/Ominivore	2
Red river hog	*Potamocherus porcus*	Mammal/Omnivore	
Giant eland	*Taurotragus derbianus*	Mammal/Herbivore	1
Horse	*Equus ferus*	Mammal/Herbivore	1
Mona monkey	*Cercopithecus mona*	Mammal/Omnivore	2
Baboon	*Papio Anubis*	Mammal/ Omnivore	2
Drill Monkey	*Cercopithecus mandrillus*	Mammal/ Omnivore	2
Africa rock python	*Python sebae*	Reptilian/ Carnivore	1
Gabon viper	*Bitis gabonica*	Reptilian/Carnivore	1
Royal python	*Python reqius*	Reptilian/Carnivore	1
Black cobra	*Naja naja*	Reptilain/Carnivore	1
Monitor lizard	*Varanidae varanus*	Reptilian?Carnivore	1
Cane rat	*Thronomys swinederianus*	Mammal/Herbivore	3
Dwarf crocodile	*Osteolaemus tetraspis*	Reptilian/Carnivore	1
Nile crocodile	*Crocodylus niloticus*	Reptilian/Carnivore	2
Stripped hyena	*Hyaena hyaena*	Mammal/Carnivore	1
Spotted Hyena	*Crocuta crocuta*	Mammal/Carnivore	
Dorcas gazelle	*Philantomba debranus*	Mammal/Herbivore	1
Lion	*Panthera leo*	Mammal/Carnivore	1
Africa civet cat	*Civetticitis civetta*	Mammal/Omnivore	1
Common jackal	*Canis aureaus*	Mammal/Carnivore	1

Table 3: Visitors'motivation, awareness medium and visitation rate.

Variables	Frequency n=222	Percentage (%)
Purpose of visit		
Sightseeing animals	76	34.2
Recreation and Relaxation	98	44.1
Education and Research	31	14.0
Others	10	4.5
Visitors Patronage		
Weekly	14	6.3
Fortnightly	19	8.6
Monthly	38	17.1
Yearly	94	42.3
Once a while	29	13.1
First time	27	12.2
Visitors awareness medium		
Friends/family	146	65.8
Radio	1	0.5
Television	1	0.5
Posters/Handbills	24	10.8
Internet/Social media	38	17.1
Others	10	4.5
Mode of Visitation		
Alone	**39**	17.6
Family members	**56**	25.2
Friends	**71**	32.0
Colleagues	**42**	18.9
Visitation to other zoos		
Yes	186	83.8
No	30	13.5
Interested animals in the zoo		
Carnivores	62	27.9
Herbivores	34	15.3
Reptiles	48	21.6
Large birds	41	18.5
Primates	30	13.5

Table 4: Visitors Assessment, Satisfaction, Perception and Impression of Zoo Tourism Animal Welfare, Wildlife Resources, Facilities, Infrastructures and Services

Variables	Frequency (n=222)	Percentage (100%)
Visitors impression of population status and species of animals sighted in the zoological garden		
extremely impressed	9	4.1
moderately impressed	15	6.8
slightly impressed	26	11.7
neutral	29	13.1
slightly unimpressed	35	15.8
moderately unimpressed	42	18.9
Extremely unimpressed	65	29.3
How satisfied are you with the fauna resources, facilities, infrastructures and services		
Extremely satisfied	12	5.4
Moderately satisfied	23	10.4
Slightly satisfied	46	20.7
Neutral	11	5.0
Slightly unsatisfied	34	15.3
Moderately unsatisfied	74	33.3
Extremely unsatisfied	22	9.9
Were the animals well catered for?		
Yes	41	18.5
No	135	60.8
Indifferent	37	16.7
Were your expectations met?		
Yes	99	44.6
No	103	46.4
Indifferent	16	7.2
No response	4	1.8
What's your overall rating of zoo tourism as perceived by your experience at UI ZOO		
Exceptional	7	3.2
Excellent	11	5.0
Very good	19	6.3
Good	33	8.6
Fair	89	40.1
Poor	43	19.4
Very Poor	14	14.9
Propensity to re-visit		
Extremely likely	24	10.8
Very likely	35	15.8

|	Frequency	Percentage (100%)
Somewhat likely	67	30.2
Neither likely nor unlikely	38	17.1
somewhat unlikely	13	5.9
Very unlikely	26	11.7
Extremely unlikely	18	8.1
Suggested animals that may boost visitors tourism experience	**Frequency**	**Percentage (100%)**
Lion	222	100
Elephant	208	93.7
Antelope	114	51.4
Gorilla	222	100
Chimpanzee	222	100
Hippopotamus	186	83.8
Kangaroo	165	74.3
Zebra	179	80.6
Buffalo	144	64.9
Black mamba	176	79.3
Rhinoceros	191	86.0
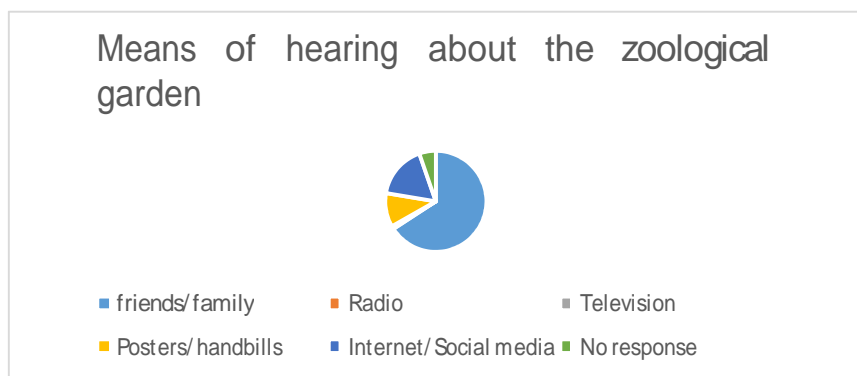
Figure 2: Means of hearing about the zoological garden.

The trend of visitors in university of Ibadan zoological garden was shown in table 5. Majority of the zoo staff (50%) opined that the total number of the zoo visitors have increased over the years while 34.6% had contrary view. Highest number of visitors(63.6%) were always recorded during the festive periods while 22.7% stated that it is during public holidays that they have the highest turn up of visitors.

Table 5: Tourist Influx in University of Ibadan Zoological Garden

	Frequency(n=22)	Percentage (100%)
Visitors number		
Increasing	11	50.0
Not increasing	8	36.4
No response	3	13.6
Highest turn-up		
Weekends(Saturdays and Sundays)	3	13.6
Festive period	14	63.6
School/Public holidays	5	22.7
Average number of visitors during high up of visitors		
500-100	7	9.1
1000-2000	10	31.8
2000 and above	2	45.5
No response	3	13.4
Low turn up		
Weekdays	22	100
Average number of visitors during low turn up		
50-100	6	27.3
100-200	15	68.2
200-300	1	4.5
No response	0	0

Table 6:. Problems facing University of Ibadan Zoological Garden.

Observed Problems	Frequency (n=222)	Percentage (100%)
Untidy environment	21	9.5
Low animal population	59	26.6
Unhealthy or old animals	21	9.5
Inadequate feeding of animals	27	12.2
Payment of additional fee for tour guide	11	5.0
Poor labelling of animals	14	6.3
Maintenance problem	18	8.1
High rate of entrance fee	12	5.4
Dilapidated animal cages	32	14.4

Journal of Forestry Research and Management. Vol. 20(3).103-117; 2023, ISSN 0189-8418

www.jfrm.org.ng

Most of the respondents (26.6%) expressed their disappointment in the low population of animals sited in the zoo. Other issues of concerned raised by the visitors include untidy environment (9.5%), unhealthy or old animals (9.5%), inadequate feeding of animals (12.2%), dilapidated animal houses (14.4%), high ticket rates (5.4%), poor animal labelling (6.3%), extra fee for tour guide (5.0%), maintenance problem (8.1%) , 3.2% did not observe any problem.

Table 7: Summary of results on Chi-square test of association among variables

VARIABLES	p-value	Df	Asymp.Sig (2-sided)	Significance	Decision
Age VS Purpose of Visit	0.757	3	0.019	P> 0.05	NS
Purspose of visit VS Expectations being met	0.168	12	0.379	P <0.05	*
Purpose of visit VS level of satisfaction	0.326	16	0.753	P <0.05	*
Age VS awareness medium	0.924	6	0.025	P >0.05	NS
Expectation being met VS propensity to revisit	0.866	9	0.214	P >0.05	NS

*= Significant Association, NS= Not Significant

Discussion

The study's demographic analysis revealed valuable insights into the profile of visitors at the University of Ibadan Zoological Garden. It was observed that the majority of the respondents (54.5%) were males, with a significant portion belonging to the 21-30 age group (36.0%). This indicates that a large proportion of the visitors were young and likely enthusiastic about exploring and seeking adventure, aligning with the findings of Yager*et al*., (2015)

Visitors'motivation, awareness medium and visitation rate

The results revealed that most visitors preferred to explore the zoo with friends (32.0%), family members (25.2%), or colleagues (18.9%). This aligns with previous research (Yocco*et al.,* 2010; Briseno-Garzon et al., 2007; Tomas *et al.,* 2007), indicating that zoo visits are often a social activity, providing an opportunity for quality time with loved ones. Additionally, the study shed light on the various channels through which visitors learned about the zoological garden. Notably, word of mouth from friends and family emerged as the most influential source of information. This is consistent with the findings of Kuuder*et al.* (2013), as cited in Alarape*et al*. (2015), highlighting the significant role of personal recommendations in attracting visitors to zoos.

Visitors Assessment, Satisfaction, Perception and Impression of Zoo Tourism Animal Welfare, Wildlife Resources, Facilities, Infrastructures and Services

From table 4 above, 29.3% of the respondents were extremely unimpressed with species and population of wildlife sited in the zoo while 18.9% were moderately unimpressed, 11.7% were slightly impressed with the species and total number of the animals present in the zoo. This is likely to reduce visitors patronage and

also cause a regression of zoological tourism. Hence, there is need to stock the zoo with more animals in order to increase tourist influx as well as develop zoo tourism in the study area. Most of the respondents (46.4%) noted that their expectations were not met as they were expecting to see variety of animals such as lion, elephant, chimpanzee but these animals were not available in the zoo. While 44.6% of the respondents expressed their satisfaction with the available animals in the study area. Animals like lion, gorilla and chimpanzee were mostly suggested by the visitors followed by elephants, kangaroo and hippopotamus

Regarding animal welfare, a significant majority (60.8%) perceived that the animals were not well cared for, citing their unhealthy appearance. This points to a critical area for improvement in the zoological garden, as animal welfare is paramount in maintaining visitor satisfaction and the overall ethical standards of the facility. Many respondents (46.4%) reported that their expectations were not met due to the absence of popular animals such as lions, elephants, chimpanzees, gorillas, and hippos. This indicates the importance of diversifying the zoo's animal collection to align with visitor expectations. In terms of overall perception, a substantial portion of respondents (40.1%) rated their zoo tourism experience as "fair". Factors contributing to this rating included poor management practices, inadequate funding, a decline in wildlife species, subpar tourist facilities and infrastructures, and unsatisfactory services offered by the zoological garden.

Tourist's Influx

The study offered insights into visitor numbers during peak and off-peak periods. During the high turnout periods, a substantial portion of respondents (45.5%) reported visitor numbers exceeding 2000 per day. Conversely, during low turnout periods, 68.2% reported an average of 100-200 visitors per day, illustrating the variability in attendance.

Feedback from visitors on their level of satisfaction revealed some concerning findings. A notable 33.3% of respondents expressed moderate dissatisfaction with the fauna resources, tourist facilities, structures, and services within the zoological garden. Factors contributing to this dissatisfaction included poor management practices and the need for rehabilitation.

Conclusion

This paper has examined visitors perception and satisfaction of zoological tourism in University of Ibadan Zoological garden. The University of Ibadan Zoological Garden continues to be a prominent tourist attraction within the city of Ibadan, drawing in large number of visitors daily from various regions across Nigeria. From the results, the primary motive behind most visits to the zoological garden is recreational, also majority of the respondents rated their zoological tourism in terms of experience as fair as they were expecting to see diverse animals and in good population. The facilities and structures in University of Ibadan needs to be rehabilitated as most of the structures are tumbledown, also valuable landscape(flora and fauna) must be protected despite the large number despite the large number of visitors coming into the zoological garden. Finally, there is need for the management to consider programs and formulate policies on the resource management in the zoological garden.

Recommendation

For sustainable zoo tourism, it is recommended that the zoological garden should improve its management activities to enhance both visitor and animal welfare. This includes enhancing the environment for nature-based conservation by planting flowers and trees to improve the garden's aesthetic appeal while cultivating good management practices. Zoo management should actively seek partnerships with other zoological gardens to exchange ideas and benefits. Animal enclosures should undergo refurbishment to enhance the health of captive animals and create a more appealing experience for visitors. Relaxation facilities should be modernized, allowing visitors to dine while enjoying animal documentaries. These documentaries can educate visitors about wildlife and conservation. Dedicated amusement areas should be established for children's entertainment, featuring recreational equipment like merry-go-rounds, horse riding, castles, and electronic car racing. The outdated and rusty swings in the children's playground should be replaced. Furthermore, the zoological garden should provide well-trained tour guides at no extra cost to educate visitors about the zoo's wildlife resources. By implementing these recommendations, the University of Ibadan Zoological Garden can enhance the overall visitor experience, contribute to animal welfare, and promote conservation efforts effectively.

References

Adeleke, B.O. (2001)The influence of communication strategies on tourism extension in Ibadan; A case study of University of Ibadan Zoological Garden, Ibadan Oyo State, Nigeria. *Journal of Agricultural Extension,* 1(7),705-711

Ajayi, O.O., Bello, Y.O., and Ayodele I.A. (2017) Zoo tourism in Nigeria; Ogba zoo and Nature park in perspective, *Journal of Hospitality, Leisure and Tourism* Volume 1, No.2. pp 93-109

Alarape, A.A., Yager,G.O. and Salman, K.K.(2015) Assessment of tourists of satisfaction and perception in Makurdi zoological garden, Benue State, Nigeria. *Journal of Research in Forestry, Wildlife* Ajayi *and Environment*,7:1-12

Baatay, E. and Hardonim-Fugier, E. (2002). Zoo : A history of zoological gardens in West London: Reaction books.

Briseno- Garzon, A. Anderson, D. and Anderson, A. (2007). Entry and emergent agendas of adults visiting an aquarium in family groups. Visitor Studies 10(1): 73-89

Carr, N and Cohen, S. (2011). The public face of zoos: image of Entertainment, Education, and Conservation. *Anthrozoos*, 24(2), 160-178

Cooperative Research Centre for Sustainable Development (2001).CRC wildlife tourism research.*www.crctourism.com.au. Sustainable Tourism Cooperative Research Centre*. STCRC Australia

Cooperative Research Centre for Sustainable Development (2008). Wildlife tourism: challenges,opportunities and managing the future. *Sustainable Tourism Cooperative Research Centre*.STCRC Australia

Fa, J.E., Funk, S.M and O' Connell D (2011). *Zoo Conservation Biology*. Cambridge, UK: Cambridge University press

Falk, J.H., Reinhard, E. M., Vernon, C.L., Bronnenkant, K., Deans, N.L. and Heimlich, J. E. (2007). Why Zoos and Aquariums matter: Assessing the Impact of a Visit. Association of Zoos and Aquariums, Silver Spring, MD. 24pp.

Frost, W. (2011*). Zoos and Tourism; Conservation, Education, Entertainment*? Bristol: channel view publication

Hancocks, D. (2001) A Different Nature. The Paradoxical World of Zoos and Their Uncertain
     Future. University of California Press, Berkeley, California, 392 pp

Holst, B and Dickie, L. (2007). How do national and international regulations and policies influence the role of zoos and aquarium in conservation? In A. Zimmermn, M. Hatchwell, L. Dickie and C.West (Eds), *Zoos in the 21ˢᵗ Century: Catalysts for Coservation*? (pp. 22-33). Cambridge: Cambridge University Press

Koebner, L. (1994). Zoo books: The evolution of wildlife conservation centre. New York: Forge publication.

Kuuder, C.W., Bagson, E. and Aalangdong, I.O. (2013) Assessment of Visitor Satisfaction in Mole National Park, Ghana. *African Journal of Hospitality, Tourism and Leisure* 2(3): 1-11

Jamieson, D. (1985). Against zoos. In P. Singer (Ed), *In Defence of Animals*pp 108-117. Oxford Blackwell

Lyngdoh, S., Mathur, V.B. and Sinha, B.C. (2017). Tigers, tourists and wildlife: Visitor demographics and experience in three Indian Tiger Reserves. Biodiversity and conservation, Volume 26, No.5. pp. 2187-2204

Mutangaa, C.N., Vengesayia, S., Chikutaa, O., Mubokob, N. and Gandiwa, E. (2017) Travel motivation and tourist satisfaction with wildlife experiences in Gonarezhou and Matusadona National Parks. *Journal of Outdoor Recreation and Tourism*, Volume 20 No.3. ,pp.1-18

Newsome, D., Dowling, R. and Moore, S. (2005). Wildlife Tourism. Channel View Publications, Clevedon, UK.

Ojo, S.O (2016), Evaluation of Visitors' Satisfaction and their perception about Animal Welfare in University of Ibadan Zoological Garden. *Ibadan Journal of Agricultural Research* Volume 12, No.1. pp 124-137

Omonona, A.O and Ayodele, I.A (2011) *Principle of zoo management in Nigeria*, 1ˢᵗ edition, Ibadan University Press Publishing House, University of Ibadan; 1-126

Puan, C.L. and Zakaria, M. (2007) Perception of visitors towards the role of zoos: a Malaysian perspective. *International Zoo Yearbook*, 41: 226-230

Reade, L.S and Warran N.K. (1996). The modern zoo: how do people view zoo animals? *Applied animal behaviour science* 47: 109-118

Sterling, E, Lee, J and Wood, T. (2007). Conservation education in zoos: an emphasis on behavioural change. *In zoos in the 21ˢᵗ century: catalysts for conservation*? (Eds) A. ZimmermnM.Hatchwell, L.Dickie and C.West Cambridge, UK; Cambridge University Press, Pp 37-50

University of Ibadan, Student Information Handbook,(2012). *The zoological garden* .183pp

Tomas, S. Crompton, J and Scott, D. (2003) Assessing service quality and benefits sought among zoological park visitors. *Journal of Parks and Recreation Administration.* 21(2); 105 -11.

Van Linge, J.H. (1992). How to out-zoo the zoo. *Tourism Management.* 13(1): 115-117

World Zoo Conservation Strategy. (1991). Zoo Education in the World Zoo Conservation Strategy and its Evolution in International Conventions. ZEB publication

Yager, G.O., Alarape, A.A and Gideon, P.K. (2015) Assessment of recreational potentials of Makurdi Zoological Garden, Benue State, Nigeria.*Nigerian Journal of Agriculture, Food and Environment*, 11(3) ,80-86

Yocco, V.S., Heimlich, J.E, Myers, C and Jenike S.D.(2010). Let's go to the zoo. Visitors' social expectations of a trip to the zoo. IZE journal NR46