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## Assessment of the Financial Implication and the Design of Modern Standard Zoological Parks in Nigeria: The Way Forward

<sup>1</sup>SHENPAM, G.D(PhD) & <sup>2</sup>SHEHU, Idris Umar

<sup>1&2</sup> DEPARTEMENT OF HOSPITALITY AND TOURISM MANAGEMENT, FEDERAL UNIVERSITY WUKARI, TARABA STATE  
NIGERIA

Corresponding Author: shenpamgodwin@yahoo.com

### ABSTRACT

This study aimed to assess and analyzes the financial viability of modern standard zoological parks in order to determine their long-term sustainability and potential return on investment. The research employed a descriptive survey methodology, with a sample size of eighty respondents randomly chosen from zoological park staff across the country. A questionnaire titled "Financial implications of modern standard zoological park: the way forward" was administered using a four-point Likert rating scale through Google form. The data collected were analyzed using mean score and standard deviation Statistical method. The findings suggest that zoological gardens have the potential to generate long-term sustainability and a return on investment if they are properly monitored. Effective financial management, including expense control, revenue optimization, and strategic pricing strategies, is crucial for maintaining a healthy financial status. Regular audits, cost-benefit analyses, and exploring innovative revenue generation opportunities such as partnerships and sponsorships are recommended. Zoological gardens should prioritize animal welfare and conservation initiatives to gain public support and credibility. These strategies can raise awareness about conservation efforts and attract visitors from both local and international markets. Among others it was recommended that the Zoological parks have evolved beyond mere entertainment destinations and now actively contribute to wildlife conservation efforts.

**Keywords:** Financial viability, Modern standard zoological parks, Wildlife conservation

### Introduction

Internationally, scholars have discussed economic sustainability in zoological parks. Brown and Knuth (2014) opined that modern zoological parks faces economic pressure to generate revenue in order to cover their increasing costs of operation. They suggest that these institutions should focus on creating unique visitor experiences, such as interactive exhibits and immersive technologies, in order to attract visitors and increase revenue. The economic sustainability of modern zoological parks is a topic of interest for Nigerian scholars and researchers. According to Abubakar

et al. (2014), zoological parks in Nigeria face economic challenges

due to inadequate funding, poor management practices, and a lack of strategic planning. These challenges often result in limited resources for animal welfare, infrastructure maintenance, and conservation efforts. The authors argue that sustainable economic practices are crucial for the continued operation and success of zoological parks in Nigeria. Similarly, Olajide and Imeokparia (2016) highlight the economic aspect of zoological parks, emphasizing the need for revenue generation to support their operations. The authors suggest that zoological parks should diversify their income streams by

offering additional services such as events, educational programs, and ecotourism. They also emphasize the importance of effective marketing strategies to attract visitors and ensure financial sustainability. The economic sustainability of modern zoological parks remains a challenge in Nigeria and globally. Nigerian scholars highlight the need for strategic planning, effective management, and revenue diversification to ensure the long-term viability of these institutions. The insights from both Nigerian and international researchers provide valuable perspectives on potential solutions to enhance the economic sustainability of zoological parks.

Modern zoological parks employ various revenue generation models to finance their operations and ensure sustainability. One common strategy is through entrance fees and ticket sales. Visitors are required to pay an admission fee to access the park, which not only covers maintenance costs but also contributes to conservation efforts. Ezebilo (2017) note that entrance fees represent a significant income source for zoological parks, with revenues being used to improve facilities and support conservation programs. This highlights the importance of such model in generating funds for the continued operation and development of modern zoological parks in Nigeria.

Another revenue generation model employed by zoological parks is through commercial partnerships and sponsorships. Parks can establish partnerships with corporate entities, such as banks, telecommunications companies, or food and beverage providers, to receive financial support in exchange for branding and marketing opportunities within the park premises. These partnerships not only generate additional revenue but also promote the companies involved. For instance, most zoological gardens in Nigeria have established partnerships with organizations to fund projects and develop facilities (Folaranmi et al., 2017). This model allows zoological parks to tap into the corporate sector for financial support while providing marketing advantages to the sponsors. In a note shell, the revenue generation

models for modern zoological parks in Nigeria and beyond have evolved to ensure financial sustainability. Entrance fees and ticket sales remain a crucial and consistent source of revenue, as shown by the study conducted by Ezebilo (2017). Additionally, establishing commercial partnerships and sponsorships have become prevalent in contributing to financial support for zoological parks (Folaranmi et al., 2017). These models enable parks to cover operational costs, enhance facilities, and support conservation efforts for the benefit of both visitors and wildlife.

### Statement of the Problem

Modern standard zoological parks provide a crucial environment for the conservation and preservation of diverse wildlife species, while also serving as popular tourist attractions. However, the development and maintenance of such parks come with substantial financial implications. Firstly, the establishment of a modern zoo requires significant capital investment to ensure the construction of appropriate enclosures, staffing, and the acquisition of animals. Additionally, the day-to-day operations and care for these animals necessitate ongoing expenses, including food, veterinary care, and personnel salaries. The financial viability of a zoological park is further complicated by the need to balance the costs of conservation efforts, such as breeding programs and research, with the income generated from ticket sales, sponsorships, and merchandising. Furthermore, the financial sustainability of modern zoological parks is impacted by the increasing expectations of visitors and regulatory bodies. These expectations necessitate constant improvements in animal welfare standards, environmental enrichment, and educational programs, which in turn require additional investments. Balancing such expenses with the limited resources available to zoological parks requires careful financial planning and creative fundraising strategies. Moreover, the

COVID-19 pandemic has introduced new challenges, with the closure of zoos leading to a significant loss of revenue, making it more crucial than ever for zoological parks to develop sustainable financial models

Overall, addressing the financial implications of modern standard zoological parks is essential to ensure the long-term viability of these institutions in promoting conservation and education. By finding innovative ways to generate revenue, reducing operational costs, and embracing sustainable financial practices, zoological parks can continue to play a vital role in the preservation of wildlife while satisfying the evolving demands of visitors and regulators.

## Objectives of the Study

- i. Assess the financial viability of modern standard zoological parks in order to determine their long-term sustainability and potential return on investment.
- ii. Investigate the cost-benefit ratio of implementing various conservation initiatives within modern standard zoological parks, such as breeding programs and habitat restoration, in order to determine their financial impact

## Research Questions

- i. What are the ways to generate a long-term sustainability and potential return on investment?
- ii. What are the cost-benefit ratios of implementing various conservation initiatives within modern standard zoological parks?

## Strategies for attracting private investments in zoological parks

One crucial aspect of attracting private investments in zoological parks involves creating a favorable investment climate. Adequate legal and regulatory frameworks are essential to build trust and confidence for potential investors. In

Nigeria, there is need for a well-defined legal framework that assures investor protection, secure property rights, and efficient dispute resolution mechanisms (Olusegun, Adedeji, & Salami, 2017). A strong legal framework provides a stable environment for private investors, mitigating risks and facilitating long-term partnerships. Moreover, collaborative partnerships between public and private sectors are essential in attracting private investments in zoological parks. Experts in Nigeria stress the importance of fostering collaborations between government agencies, host communities, local businesses, and private investors (Oluwagbemi, Agyei, & Garwe, 2015). These partnerships enable the allocation of shared responsibilities while promoting sustainable growth and development of the park.

To further enhance attractiveness to private investors, zoological parks should focus on generating revenue streams beyond admission fees. Diversification of income sources, such as through merchandising, hospitality, and sponsorships, can contribute significantly to the financial viability of zoological parks (Adekunle, 2018). Attracting corporate sponsorships, local businesses, and philanthropic organizations can aid in financing infrastructure development, facility upgrades, and conservation initiatives (Williamson & Wright, 2016). Promoting environmental education and conservation programs can enhance the appeal for private investments in zoological parks. These programs contribute to public awareness, biodiversity preservation, and research activities, raising the parks' profile and public support, which in turn is attractive to private investors (Edwards & Ngpoyo, 2015). Nigerian scholars have highlighted the importance of incorporating educational initiatives that align with local communities' needs and their cultural heritage to foster a sense of ownership (Tonwe, Effiom, & Chigozie, 2017).



- iii. **Competition with Other Sectors:** Nigeria faces numerous socio-economic challenges, and the government must allocate funds across various sectors. Zoological parks often struggle to compete for funding against areas that are perceived as more pressing, such as healthcare and education (Okenwa et al., 2016). This competition hampers the financial sustainability of zoological parks.

## Policy Considerations

- i. **Public-Private Partnerships (PPPs):** Scholars have emphasized the need for establishing PPPs as a viable solution for enhancing the financial sustainability of zoological parks (Amodu et al., 2014). Collaborating with private sector entities, NGOs, and other stakeholders can provide additional funding sources and expertise, reducing dependence on government support.
- ii. **Sustainable Tourism Development:** Implementing policies that promote sustainable tourism can contribute to the financial sustainability of zoological parks. Scholars suggest the adoption of eco-tourism practices, improving infrastructure, and enhancing visitor experiences to generate revenue (Eteng et al., 2017). Income generated through tourism can supplement government funding and provide the necessary resources for park operations.
- iii. **Environmental Education in Schools:** Scholars argued for the inclusion of environmental education in school curricula, as a means of raising awareness about the importance of zoological parks among future generations (Eteng et al., 2017). This can facilitate long-term support and interest from the public, driving increased visitation and funding opportunities.

## Benefits of Zoological Parks

- (a) **Employment opportunities and income generation:** Zoological

parks create direct and indirect employment opportunities, thereby enhancing the local economy. Onogwu (2017) noted that zoos employ personnel including veterinarians, zookeepers, educators, and maintenance staff. Additionally, ancillary industries such as food vendors, souvenir shops, and transportation services tend to spring up around zoos, contributing to greater income generation for local businesses (Agulo, 2014).

- (b) **Local Business Development and Entrepreneurship:** The presence of a zoo stimulates entrepreneurial opportunities and encourages the growth of local businesses. A study by Ijaiya, Uthman, and Anifowose (2015) opined that zoological parks attract visitors who may require accommodation, transportation, and other goods and services, leading to the development of hotels, restaurants, tour agencies, and handicraft shops in the vicinity.
- (c) **Tourism Industry Growth:** Zoological parks play a crucial role in attracting both domestic and international tourists, fostering the growth of the tourism industry. Adeyemi and Arowolo (2018) highlighted that zoos can become major tourist attractions, drawing visitors from distant locations and increasing tourist spending on accommodation, dining, transportation, and other leisure activities. This results in economic growth for the region.
- (d) **Conservation efforts and Ecological Education:** Zoos often emphasize conservation efforts and ecological education, which can have indirect economic benefits for local communities. Nurudeen (2020) argues, zoos contribute to biodiversity conservation and raise awareness about environmental issues. Such efforts attract environmentally conscious visitors, who may be more likely to engage in sustainable practices such as patronizing eco-friendly accommodations or supporting local



communities involved in conservation initiatives.

### Potential Limitations and concerns regarding the economic impact of Zoological Parks

- (a) **Potential negative environmental impact:** Critics argue that keeping animals in captivity may have negative effects on their welfare and biodiversity conservation efforts. If not managed properly, zoos can lead to environmental degradation, which might result in decreased tourism appeal and, consequently, a negative economic impact (Manuel-Navarrete, 2018).
- (b) **Economic Leakage:** Zoological parks might suffer from economic leakage, where a significant portion of the generated revenue flows out of the local community due to imported goods, services, and staff (Oyedeji, Ajagbe & Osundahunsi, 2019). This limits the direct economic benefit to the local community.

## Methodology

The study was descriptive survey in nature. The sample consisted of eighty (80) respondents, which were randomly chosen each from the zoological parks staff across the country through online Google form. The questionnaire titled “Financial implications of modern standard zoological park: the way forward”. The questionnaire was structured on four scale Likert’s rating scale (Strongly Agreed, Agreed, Disagreed, and Strongly Disagreed) and Very favorable cost-benefit, Favorable cost-benefit, Unfavorable cost-benefit, Very unfavorable cost-benefit. The research instrument was validated by three experts in test and measurement, while reliability test was coefficient of 0.73 using Kuder-Richardson 20 (KR20). The collected data were analyzed using Mean Score and Standard Deviation.

## Discussion

**Research Question 1: What are the ways to generate a long-term sustainability and potential return on investment?**

**Table 1: Mean Analysis of the ways to generate a long-term sustainability and potential return on investment**

S/N	Items	$\bar{x}$	SD	Remark
1.	Creating partnerships with local communities and businesses to enhance long-term sustainability and potential return on investment in zoological parks	3.49	1.86	Agreed
2.	Renewable energy sources (such as solar panels or wind turbines) will generate long-term sustainability and potential return on investment in zoological parks	3.33	1.82	Agreed
3.	Developing an educational programs and workshops that promote environmental awareness and conservation practices in zoological parks in very crucial	3.20	1.78	Agreed
4.	Implementing waste management practices is for maintaining long-term sustainability and potential return on investment in zoological parks	3.16	1.77	Agreed
5.	It is crucial for zoological parks to allocate resources for research and development focused on sustainable practices and innovative ideas	3.38	1.83	Agreed

Key: SA= Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, N= Number of respondents (students), C = cut-off point,  $\bar{x}$ = Mean of responses, R = Remark, S.D= Standard Deviation, Decision Value: Disagree= 0.00-2.49, Agree= 2.50-4.00

Note on Remark: The highest mean value obtainable for each item is 4.00. Any item that has mean value below 2.50 was taken as disagreed while anyone with mean value above 2.50 was taken as Agreed.

The Table 1 above shows the ways to generate a long-term sustainability and potential return on investment. The table

shows that the respondents agreed to all the items in the table as follows: Creating partnerships with local communities and businesses to enhance long-term

sustainability and potential return on investment in zoological parks ( $\bar{x}$  3.49), Renewable energy sources (such as solar panels or wind turbines) will generate long-term sustainability and potential return on investment in zoological parks ( $\bar{x}$  3.33), Developing an educational programs and workshops that promote environmental awareness and conservation practices in zoological parks is very crucial ( $\bar{x}$  3.20), Implementing waste management practices is for maintaining long-term sustainability and potential return on investment in

zoological parks ( $\bar{x}$  3.16), It is crucial for zoological parks to allocate resources for research and development focused on sustainable practices and innovative ideas ( $\bar{x}$  3.38). Based on the result from the table and on the remark values, it can be inferred that there are various ways to generate a long-term sustainability and potential return on investment for zoological garden if they are properly monitored.

**Research Question 2: What are the cost-benefit ratios of implementing various conservation initiatives within modern standard zoological parks?**

**Table 2: Mean Analysis of the cost benefit ratios of implementing various conservation Initiatives within modern standard zoological parks**

NO	Items	$\bar{x}$	SD	Remark
1	How do you perceive the cost-benefit ratio of implementing education programs within zoological parks to raise awareness about conservation issues	2.8 6	1.69	Very favorable cost-benefit
2.	How do you rate the cost-benefit ratio of investing in advanced technology and infrastructure for energy conservation within zoological parks	2.7 2	1.67	Very favorable cost-benefit
3.	How would you rate the cost-benefit ratio of implementing captive breeding programs within zoological parks as a conservation initiative	3.0 6	1.74	Very favorable cost-benefit
4.	What is your opinion on the cost-benefit ratio of supporting local community development projects as part of conservation initiatives within zoological parks	3.2 2	1.79	Very favorable cost-benefit
5.	How do you perceive the cost-benefit ratio of implementing stricter regulations and measures on waste management within zoological parks for conservation purposes	3.4 3	1.85	Very favorable cost-benefit

**Key:** Very favorable cost-benefit, Favorable cost-benefit, Unfavorable cost-benefit, Very unfavorable cost-benefit, N= Number of respondents (students), C = cut-off point,  $\bar{x}$ = Mean of responses, R = Remark, S.D= Standard Deviation, **Decision Value:** Disagree= 0.00-2.49, Agree= 2.50-4.00

**Note on Remark:** The highest mean value obtainable for each item is 4.00. Any item that has mean value below 2.50 was taken as **very unfavorable cost-benefit** while anyone with mean value above 2.50 was taken as **very favorable cost-benefit**.

The Table 4.4 shows the cost-benefit ratios of implementing various conservation initiatives within modern standard zoological parks. The table shows that the respondents perceived all the suggested ways implementing various conservation initiatives within modern standard Zoological parks are all Very favorable cost-benefit. How do you perceive the cost-benefit ratio of implementing education programs within zoological parks to raise awareness about conservation issues ( $\bar{x}$  2.86), How do you rate the cost-benefit ratio of investing in advanced technology and infrastructure for energy conservation within zoological parks ( $\bar{x}$  2.72), How would you rate the cost-benefit ratio of implementing captive breeding programs within zoological parks as a conservation initiative ( $\bar{x}$  3.06), What is your opinion on the cost-benefit ratio of supporting local community development projects as part of conservation initiatives within zoological parks ( $\bar{x}$  3.22), How do you perceive the cost-benefit ratio of implementing stricter regulations and measures on waste management within zoological parks for conservation purposes ( $\bar{x}$  3.43). Based on the result from the table and on the remark values, it can be inferred from the above findings that the various ways of implementing various conservation initiatives within modern standard zoological parks are very favorable cost-benefit.

## Conclusion

In conclusion, it is evident that zoological gardens have the potential to generate long-term sustainability and a return on investment if they are properly monitored. By implementing various strategies and practices, zoos can ensure their financial viability while also promoting conservation efforts and providing educational experiences to visitors. One key aspect of ensuring long-term

sustainability is through effective financial management. By carefully monitoring and controlling expenses, optimizing revenue streams, and implementing strategic pricing strategies, zoos can maintain a healthy financial status. This involves conducting regular audits, cost-benefit analyses, and exploring innovative revenue generation opportunities such as partnerships, sponsorships, and fundraising events. Zoological gardens need to prioritize animal welfare and conservation initiatives. By adhering to strict ethical guidelines, providing appropriate habitats, and implementing conservation programs, zoos not only fulfill their responsibility to the animals in their care but also garner public support and credibility. This can lead to increased visitor numbers and revenue streams as visitors are more likely to support organizations that demonstrate commitment to animal welfare and conservation. Educational outreach plays a vital role in generating long-term sustainability for zoological gardens. By developing educational programs, events, and interactive exhibits, zoos can engage and educate visitors about various species, their

habitats, and conservation issues. These experiences not only enhance visitor enjoyment but also foster a sense of responsibility towards conservation efforts, potentially leading to increased donations and memberships. Lastly, effective marketing and communication strategies are essential in promoting a zoological gardens sustainability and return on investment. By utilizing various platforms such as social media, websites, and press releases, zoos can reach a larger audience, raise awareness about their conservation efforts, and attract visitors. Additionally, fostering partnerships with local businesses, tourism boards, and schools can help generate a positive image, attract



sponsorship opportunities, and increase visitors from both local and international markets.

## Recommendations

- i. Establishing a comprehensive financial plan is crucial for the success of a modern zoological park. This entails forecasting expenses, revenue projections, and budgeting for both operational costs and capital investments.
- ii. Zoological parks have evolved beyond mere entertainment destinations and now actively contribute to wildlife conservation efforts. To ensure financial sustainability, it is important to develop and promote conservation-oriented programming.
- iii. Zoological parks should enhance visitor experiences: Enhancing visitor experiences can have a positive impact on the financial performance of a zoological park.
- iv. Zoological parks should invest in marketing and branding: Effective marketing and branding are vital for attracting visitors and generating revenue. Investing in strategic marketing campaigns across various channels, including social media, print media, and online platforms, can help raise awareness about the zoological park and its unique offering

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