Full Length Research Paper

Analysis of Games' Marketing and Management Practices in Ondo State, Nigeria.

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This study examined the analysis of bush meat trade in Emure-Ile, Owo, Ondo State, Nigeria while it specifically identified the socio economic characteristics of games' marketers, market structure of games in the study area, determined the profitability of games' marketing as well as the effects of bush meat trade and the sustainable management of the business. The data used in the study were collected from 80 bush meat marketers that were purposively selected with the aid of snowball sampling. The Descriptive Statistics Analysis, Gross Margin Analysis and Herfindahl Index (HI) were used to analyse the data. The study revealed that majority (93.7%) of the respondents get their game catches during the dry seasons and 56% of the respondents sell their game catches according to weights. The HI value of 0.024 indicated that there was low market concentration of bush meat in the study area. On the cost and returns of bush meat (profitability measures), it was gathered that the mean total revenue for all the hunters was ₦27, 362.50 (US$144.01) while the mean total variable cost was ₦6,150 ($32.37), implying that bush meat trade is profitable and less capital intensive in the study area. The study reported a very high rate of 82.5% awareness in the declining population of wild animals and suggested the prevention of deforestation and encouraging domestication of Wildlife as measures towards the sustainable management of the trade.

Key words: Games' marketing, management practices, gross margin, herfindahl index

INTRODUCTION

Bush meat is a general term which refers to meat from non-domesticated animals hunted for commercial and subsistence purposes in the forests of Africa. Bush meat plays a significant role in the livelihood of those involved in their exploitations, this is largely because games represent a cheap source of protein which is readily available and a source of income obtained from the its exploitation. (Bowen-Jones *et al,* 2003). Wild animals are usually not killed mainly because of their meat, they are also killed for some of their special parts which serve some medicinal and cultural purposes. (Wilkie and Carpenter, 2001). The increasing demand for bush meat and its parts has led to a paradigm shift from the subsistence nature of games' hunting to the commercial nature, thereby making it a strong economic activity all through Western and Eastern Africa countries(Fa *et al.,* 2002).

In his own study, Ajayi (1979) submitted that a considerable amount of work was done in the 1970s and early 1980s to document bush meat consumption particularly in the South Western area of Nigeria. The data were mostly based on estimates of the number of people who ate bush meat and the contribution of bush meat to national protein supply. For example, it was reported by Ajayi in 1991 that wild animal consumption among rural people in Nigeria's rainforest was 20% of their total animal protein intake compared to the 13% for the whole country. The author further sited that wild animals have higher carbohydrate contents (ranging from 1% in river log to 6% in forest genet) than domesticated as exemplified by 0.8% in pork and 1.3% in mutton. Moreover, the same study reported 16 - 55% protein content in bush meat compared to 11 - 20% for domestic animals.

Commercial trading in the meat of wild animals has gained enough recognition and is therefore on the increase in the Western Africa, Nigeria inclusive. Exploitation of the world's remaining tropical forests through over hunting is considered a major cause of biodiversity loss, in some cases more important than deforestation. There is a large trade in bush meat throughout sub Saharan Africa, despite legal protections

in some places in Nigeria, wild animals are usually killed indiscriminately most of the times by profit driven hunters who engage in commercial hunting just for the purpose of sale to the consumers who, most of the times are far away in the urban centres.

This illegal hunting and capture of animals for commercial purposes has posed a serious threat worthy of concern as regards wild life population. Hence, studies on bush meat trade are necessary to serve as guide lines in the development of policies necessary for the conservation and sustainable management of wild animals. (Bowen-jones *et al.,* 2003; Samantha *et al.,* 2003; Guy *et al.,* 2004). Such studies will provide the necessary information and entry points in the marketing process, where policy interventions could be targeted to engender sustainable wildlife conservation and hence, games' trade (Bowen-jones *et al.,* 2003).

This paper therefore focused on the socio-economic characteristics of games' marketers, identified market structure of games, determined the profitability of games' marketing and examined the effects of bush meat trade as well as perception of the respondents about the trade in the study area.

METHODOLOGY

Study Area

The study was carried out in Emure Ile in Owo Local Government Area of Ondo State, Nigeria. Owo is situated in South-western Nigeria, at the Southern edge of the Yoruba Hills, and at the intersection of roads from Akure, Kabba, Benin city, and Siluko. Owo is situated halfway between the towns of Ile Ife and Benin City. This particular area was selected because of the intensity of games' marketing activities in Emure-Ile area of the town.

Sampling Techniques and Data Collection

Both primary and secondary data were used. The primary data were purposively collected from 80 hunters using well-structured questionnaires. The questionnaires were divided into sections where the sections dealt with the socio-economic characteristics of the games' marketers, marketing operations and facilitating functions. The secondary data were obtained from published journals and textbooks, articles and research reports.

Data Analysis

i. Descriptive analytical methods like frequencies, averages and percentages were used to describe the socio-economic variables.

ii. Gross margin analysis was used to estimate the profitability of the games' marketing in the study area. The Gross Margin Analysis is specified as follows:

GM = TR-TVC

Where,

GM = Gross margin

TR = Total revenue

TVC = Total variable cost

Herfindahl Index (HI) was used to estimate the structure of games' market in the study area. The Herfindahl Index (HI) is specified as follows:

$$HI = \sum_{t=1}^{n} \left(\frac{xt}{T}\right)^2$$

n = number of firms in the industry

xi = absolute size of individual firms

T = total volume of bush meat

RESULTS AND DISCUSSION

Socio-Economic Characteristics of the Respondents

The analysis of the socio-economic characteristics of the respondents is presented in Table 1. The study revealed that the respondents were 100% males with majority of them married and relatively young people with about 84 percent having ages less than or equal to 50 years but with large household size. It was also revealed that they were well experienced with 85% of them had more than 5 years of hunting experience and they were fairly educated since about 53 percent had secondary education and above.

Market Structure

From Table 2, it is observed that majority of the respondents get their game catches during the dry seasons, this may imply that the dry season is usually characterised by incessant burning of bushes in order to catch preys and also, coincides with the period when the animals would have to search for food and water thereby exposing them to the hunters. Furthermore, it is observed that the majority of the respondents sell their game catches according to the weights.

The HI value is calculated to be 0.024. This is an implication that there is a low market concentration of bush meat in the study area and may indicate free entry and free exit of traders into the trade. This may also imply that the bush meat market is characterised by perfect competition which comprises of many sellers

The market structure was obtained using Herfhindahl Index as seen below:

$$HI = \sum_{t=1}^{n} \left(\frac{xt}{T}\right)^2$$

n= number of firms in the industry

xi= absolute size of individual firms

T= total volume of bush meat

Here,
n=80T= 3534HI=0.024.

Table 1: Socio-economic characteristics of the respondents

Social economics characteristic	Frequency	Percentage
Gender		
Male	80	100.0
Female	0	0
Total	80	100.0
Age		
< 30	20	25.0
31-4.0	34	42.0
41-50	13	16.0
>50	13	16.0
Total	80	100.0
Marital status		
Single	19	23.8
Married	61	76.3
Total	80	100.0
Educational qualification		
No Formal Education	13	16.2
Pry school certificate	24	30.0
Sec. school certificate	40	50.0
Tertiary education	3	3.8
Total	80	100.0
Hunting experience (years)		
< 5	12	15.0
6-10	30	37.5
11-20	23	28..8
> 20	15	18.8
Total	80	100.0
House hold size		
3-4	22	27.5
5-7	34	42.5
8-10	14	17.5
> 10	10	12.5
Total	80	100.0

Source: Field Survey, 2015.

Table 2: Market structure

Period of highest supply	Frequency	Percentages
Dry Season	75	93.7
Low Moon Luminosity	5	6.3
Total	**80**	**100.0**
Price determination		
Weight	45	56.25
Season	21	26.25
Extent on bullet damage	14	17.5
Total	**80**	**100.0**

Source: field survey, 2015

Costs and Returns for Bush Meat Hunting

The only major source of revenue for the hunters is the revenue from bush meat sales. The mean total revenue for all the hunters is ₦27362.50 (US$144.01) while the mean total variable cost is ₦6150. (US$32.37)From this, it can be deduced that the variable cost is lower than the total revenue which implies the bush meat trade is profitable in the study area which explains the infusion of a lot of people into the business.

Table 3: Profitability Measures

Revenue	Mean Value
Revenue from bush meat sales	₦27,362.50 ($144.01)
Variable Costs	
These are taken to be costs of bullet, gunpowder,	₦6,150 ($32.67)
Transportation, food items and other costs.	
Gross Margin = TR- TVC	
= ₦27362.50 - ₦6150 =₦21212.50 ($111.64)	

Effects of Bush Meat Trade

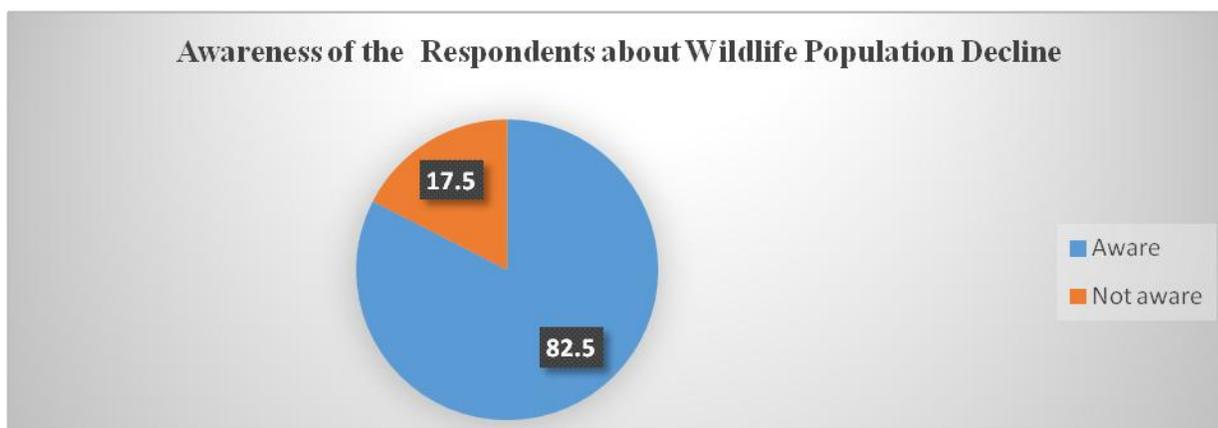*Awareness of the Respondents about Wildlife Population Decline*

Figure 1: Distribution of the respondents according to their awareness of wildlife population decline.

(Source: Field Survey, 2015**).**

From the result in figure 1, 82.5 percent of the respondents were aware of the declining population of the wild animals while only 17.5 percent of them were not aware. The higher percentage who indicated their awareness of the decline in the population of the wild animals are likely to be individuals with high years of experience on the job and thus, have observed that the wild population was a huge difference from what used to be in existence. This implies that the forests, over the years, have experienced varying degrees of poaching without any substantial plan for conservation.

Awareness of the Respondents about the Law against Poaching

Figure 2 below revealed that 52.5 percent of the respondents were aware of the law against poaching while 47.5 percent were not aware. This indicates that a higher percentage of the respondents were not aware of the law against poaching in the study area. From this, one can deduce that level of education of the respondents plays a vital role on their level of awareness

of the law against poaching.

Measures Suggested by the Respondents to Prevent Poaching

Figure 3 revealed that 53.8 of the respondents suggested that the government should encourage domestication of wild life, 12.5 percent suggested guide against deforestation, 18.7 percent suggested that the offenders should be punished when caught while the remaining 15 percent believed that nothing can be done. This implies that domestication of wild animals is the best alternative to conservation of wild population.

Existence of Government Protected Areas

From figure 4, it was made known that 52.5 percent of the respondents claimed to be aware of the government protected areas while 47.5 percent claimed to be unaware. This indicates that government, although concerned about conservation of wild animals in the
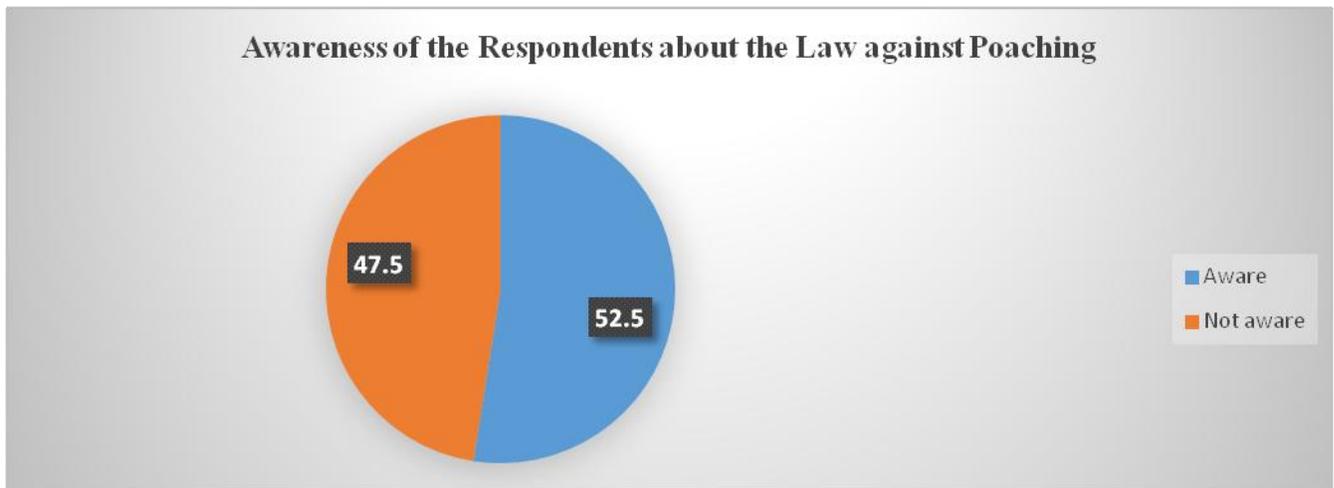
Figure 2: Distribution of the respondents according to their awareness of the law against poaching.
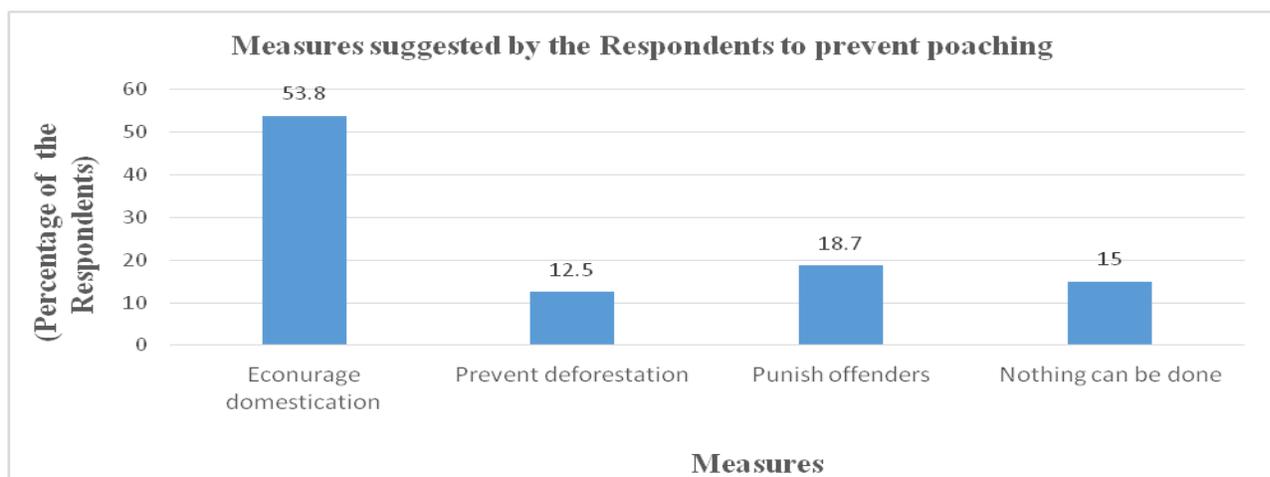(**Source:** Field Survey, 2015**).**

Figure 3: Distribution of respondents by suggested measures of preventing poaching.
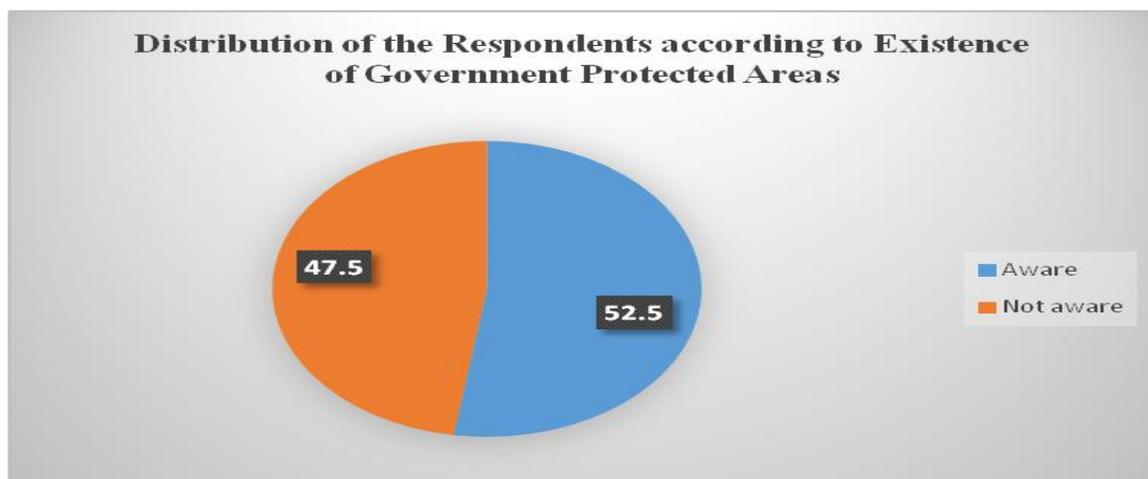**Source:** Field Survey, 2015

Figure 4: Distribution of the Respondents according to Existence of Government Protected Areas.
Source: Field Survey, 2015

forest may not be committed to enforcing the laws and protection of many forests.

CONCLUSION

The major revenue are gotten from the sales of bush meat for profit. The mean total revenue was calculated to be ₦27,635.50 while the mean total variable cost was ₦6,150. The Gross Margin was then calculated at ₦21,212.50 which is a high value and indicates profitability of the business. The market structure was determined using Herfindahl Index, and this was calculated to be 0.024 which indicates a very low concentration of bush meat market. This indicates high competition in the market and may imply free entry and free exit of traders and individuals in the market. Majority of the respondents reported that they were aware of the declining population of the wild animals and measures which can be useful in preventing poaching were suggested by the respondents which range from punishing offenders, preventing deforestation and encouraging domestication.

RECOMMENDATIONS

It was observed that the bush meat trade, though profitable, poses a serious threat and danger to the population of wild animals in the tropical forests of West Africa, Nigeria inclusive. In view of the observation from the study, the following recommendations are therefore necessitated.

The government should encourage the domestication of wild animals and provide adequate rewards to the hunters who are responsible for the capture of the animals for proper habitation in zoos and games reserves all over the country. Offenders who are caught hunting illegally in forests, when apprehended, should be adequately punished so as to deter others from invading the forests illegally for the hunting of bush meat. The government should prevent deforestation as much as possible because it causes damage to the habitats of the wild animals which consequently causes imbalance to the ecosystem. The government should ensure the provision of zoos and more games reserves and monitor proper protection of the available zoos and the game reserves which are in the country to ensure the conservation of the wild animals. Also, government should ensure the adequate sensitization of the general public about the population status of wild animals whether they are abundant, rare, endangered, threatened, or even on their way to extinct. This would help to enhance conservation through the involvement of the general public.

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