



## Determinants of Profitability of Bushmeat Marketing in Oluyole Local Government, Oyo State, Nigeria

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**ABSTRACT:** The study was carried out to find out the determinants of profitability in bushmeat marketing in Oluyole Local Government, Oyo state, Nigeria. Primary data were obtained through the use of thirty structured questionnaire administered to bushmeat marketers using a random sampling technique. Data collected were analyzed using descriptive statistics, market efficiency and regression analysis. The results showed that all the respondents were female (100%) and married (84%). The mean age of the respondents was  $48.0 \pm 7.0$  years, 83.3% had formal education with average year of experience of  $24.0 \pm 8.0$  years in bushmeat marketing. Profitability analysis revealed that bushmeat marketing is profitable venture with an average market margins of ₦25,309.00 and ₦6,433.33 per week for fresh and smoked bushmeat respectively. The marketing efficiency was greater than unity ( $ME > 1$ ). Regression analysis result indicated a significant relationship between year of education, marital status, membership of association and the marketing margin ( $p < 0.01$ ). The study thus recommends a policy that will regulate marketing of bushmeat to further enhance its efficiency in the study area.

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Next to timber, bush meat is one of the most valuable non-wood products obtained from tropical forest. (Wilkie and Carpenter, 1999). It is an important source of protein for human, and they contain less saturated fat and essential omega 3 fatty acid and rich in vitamins and some minerals (Oboye, 2017). National estimation of the value of the domestic trade in bush meat ranges from US\$42 to US\$205 million across countries in West and Central Africa (Davies, 2002). The supply of bush meat from wild sources can serve as the possible measure to bridge the gap between livestock production and human population growth which means that marketing of bush meat can play a vital role in meeting basic needs of hunters and other stakeholders found along the value chain. (Ayodele, *et al.*, 1999). Marketing has been defined as the management process responsible for identifying, anticipating and satisfying customer requirements profitably. (Chartered Institute of Marketing, 2015). Marketing efficiency is defined as the degree of market performance (Bagchi and Raha (2011) and an efficient market system is one that provides satisfactory and cheap services to consumers or one that maximize the ratio of input and output of marketing (Esiobu and Onubuogu, 2014). An efficient marketing system make sure that seasonal goods will be available all year round, with little variation in

prices, which can be attributed to cost of marketing functions like storage, processing, transportation, etc. (Nwaru *et al.* 2011). Marketing of bush-meat provides a significant contribution to human livelihood, generates income for a large number of people including the hunters, traders and transporters both urban and rural areas (FAO, 2004). Hence, to be more profitable, bush meat marketing requires every action that increases sales income and as well decreasing the costs of marketing. Since profitability is the primary goal of all business prioritizing the adopted marketing strategies in order to improve profit becomes necessary. So measuring current and past profitability and projecting future profitability is very important. (Adedeji *et.al.*, 2019). Therefore this paper evaluates the determinants factors of profitability of bushmeat marketing in Oluyole Local Government, Oyo State, Nigeria.

### MATERIALS AND METHODS

**Study Area:** The study was carried out in Oluyole Local Government Area, Oyo state, Nigeria. The Local Government is located in South Eastern part of the State and lies at latitude  $7^{\circ}23'47''N$  and longitude  $3^{\circ}56'0''E$ . The city covers an area of about 3,080 square kilometers with annual rainfall ranges from

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100mm to 1500mm and average daily temperature of 24.1°C and 28°C. The target population was bushmeat marketers.

*Sampling Technique and Data Collection:* A random sampling technique was adopted to select the respondents for the study. Forty percent of the members in the list of membership provided by Ifelodun bushmeat marketers association were selected for the study. Primary data were collected through the use of structured questionnaire administered to the respondents complemented with oral interview. Information obtained from the respondents include: sex, age, marital status, years and level of education and marketing information (years of experience in bushmeat marketing, purchase and selling prices etc).

*Data Analysis:* Data were analyzed using descriptive statistics, market margin and marketing efficiency. Descriptive statistics were employed to describe socio-economic characteristics of the respondents.

*Marketing margin and efficiency:* Marketing margin and efficiency was calculated as follows:

$$MM = ATR - ATMC \dots\dots\dots(1)$$

$$ME = ATR / ATMC \dots\dots\dots(2)$$

Where, MM=Marketing Margin; ME= Marketing Efficiency; ATR=Average Total Revenue; ATMC=Average Total Market Cost

*Regression model specification*

$$Y = f(X_1, X_2, X_3, X_4, X_5, e) \dots\dots\dots(3)$$

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + e \dots\dots\dots4$$

Where; Y = marketing margin (dependent variable); X<sub>1</sub>-X<sub>5</sub> = determinants of marketing margin

Where: X<sub>1</sub> = Age; X<sub>2</sub> = Marital status; X<sub>3</sub> = Year of education; X<sub>4</sub> = Marketing experience (Years); X<sub>5</sub>=Membership of association; e = Error term; β<sub>0</sub> – β<sub>5</sub> = Coefficients of Independent variables

**RESULTS AND DISCUSSION**

*Socio-economic characteristics of respondents:* Table 1 presents the socio-economic profile of bushmeat marketers in the study area. The result indicated that all the respondents were female (100%) and married (84%), indicating that women play a dominant role in bushmeat trading. This is in line with the findings of Soaga (2014) and

Babalola and Oladipupo, 2018 who reported that majority of bushmeat marketers were females. The average age of the respondents was 48.0±7.0 years. This indicates that the respondents were mostly young adults and can withstand the stress in the business. The respondents (83.3%) had formal education with average year of experience of 24.0 ±8.0 years in the business. This is an indication that the respondents were literate and have experience in the business.

**Table 1:** Socio-economic characteristics of respondents in the study area

Variable	Value
% female	100.00
Age (years)	48.00±7.00
% Married	84.00
% Formal education	83.30
Household size	6.00±3.00
Years of experience in bushmeat	24.00 ±8.00

Source: Field survey, 2020.

Quantity and selling price of some of the bushmeat sold weekly: The quantities and average selling prices of animals commonly sold in the study area were presented in table 2. Out of nine major bushmeat identified in the market, giant rats, rabbit and grasscutter are commonly sold in the study area which is in line with the findings of Halidu, 2009.

*Marketing efficiency of fresh and smoked bushmeat:*

In table 3, the marketing efficiencies for fresh and smoke bushmeat were greater than one implying that fresh and smoked bushmeat marketing are efficient in the study area. Bushmeat marketers were able to realize sufficient amounts of capital invested as returns, implying that bushmeat marketing is profitable in the study area. However, more profit was realized from the sale of fresh bushmeat compared to smoked meat (Table 3). In addition, response from the oral interview revealed that marketers preferred selling their bushmeat fresh. They reported that fresh bushmeat commands better price. Most times they process smoked meat if they are not able to sell the fresh meat.

*Regression analysis of the determinants of profitability in bushmeat marketing:*

The result of a linear regression showed that coefficient of determination (R<sup>2</sup>) was 0.578 which implied the independent variables accounted for 57.8% of total variation in dependent variable. F-value was 6.568; which implied that the model was significant at 1%. Regression results revealed that year of education was positively significant to marketing margin. Education tends to affect reasoning; thus educated persons can easily understand and adopt innovation in the business (Ibekwe *et al*, 2012). Membership of association was

also significant to marketing margin, this may be due to fact that members of bushmeat trade association derive some assistance that enhance their profits. The

age of the respondents was significantly positive to market margin. Marital status was negatively significant to marketing margin at 1%.

**Table 2:** Quantity and selling price of some of the bushmeat sold weekly

Wild animal species	Scientific name	Local name	Fresh		Smoked	
			Average quantity sold/week	Average Selling Price/unit (₦)	Average quantity sold/week	Average Selling Price/unit (₦)
Grasscutter	<i>Thryonomys swinderianus</i>	Oya/Ewuju	8	6,792.68	5	7,355.56
Antelope	<i>Hippotragus equines</i>	Esuro	1	24,024.39	1	17,333.33
Giant rat	<i>Crycetomys gambianus</i>	Okete	11	995.12	7	1,319.44
Common gray duiker	<i>Cephalophus spp.</i>	Etu	1	6,750.00	1	7,105.56
Snake	<i>Dendroaspis polylepis</i>	Ejo	3	2,152.78	2	2,359.00
Pangolin	<i>Manis spp.</i>	Aika	3	7,000.00	1	8,000.00
Squirrel	<i>Protoxeryx spp.</i>	Okere	4	1,341.67	4	1,643.48
Rabbit	<i>Orytolagus cuniculus</i>	Ehoru	10	2,151.78	4	2,395.65
Bushbuck	<i>Tragelaphus scriptus</i>	Igala	1	18,000		20,333.33

Source: Field survey, 2020. ₦ is the naira; Nigerian currency; US\$1 = ₦355 as at the time of the study.

**Table 3:** Marketing efficiency of fresh and smoked bushmeat

	Fresh (₦)	Smoked (₦)
Average Total Marketing Cost per week	110,047.67	44,490.00
Average Total Revenue per week	135,356.67	50,923.33
Market margin	25,309.00	6,433.33
Marketing efficiency	1.23	1.15

Source: Calculated from field survey data, 2020

**Table 4:** Regression results of the determinants of marketing margin

Independent variables	B	t-value
Constant	162648.235	2.882
Age	X <sub>1</sub> 1615.597	1.865*
Marital status	X <sub>2</sub> -78352.478	-4.072***
Year of education	X <sub>3</sub> 3591.899	3.424***
Marketing experience	X <sub>4</sub> 783.992	1.231
Membership of association	X <sub>5</sub> 61708.182	3.316***

\*\*\*Significant at 1%, \* Significant at 10% Dependent variable: Marketing margin, R<sup>2</sup>=0.578, F-value=6.568.

**Conclusion:** Bushmeat marketing was profitable and dominated by women in the area. Greater profit was realized from the sale of fresh bushmeat compared to smoked carcass. Profitability indicators showed that bushmeat marketing is profitable.

However, there should be public enlightenment on the need to domesticate wild animal species to avoid over exploitation from the wild. Domestication and multiplication of fast growing species should be encouraged in the study area for consumptive utilization and sustainable management of animal in the wild.

Also, there should be a policy that will regulate marketing of bushmeat to further enhance its efficiency in the study area.

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