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Bush Meat Marketing Practices and Opportunities in Abeokuta, Ogun State, Nigeria: A Case Study within the Context of Traditional and Indigenous Food Systems

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ABSTRACT
This study delves into the dynamics of bush meat marketing in the environs of Abeokuta, Ogun State, Nigeria, within the framework of traditional and indigenous food systems. The investigation addresses pertinent research questions and examines formulated hypotheses with a significance level set at 0.05. Employing a descriptive survey research design, the study engaged a sample of one hundred bush meat sellers, selected at random from three pivotal markets in Abeokuta: Iberekodo, Kuto, and Lafenwa. The selection process followed a purposive sampling approach, with 30 respondents each from Iberekodo and Kuto, and 40 from Lafenwa, the largest market among the three. Data collection employed a self-structured questionnaire, tailored to extract insightful responses related to the study's focal variables. Analysis of data involved the use of simple percentages, tabulation, and Student's t-test statistics, applied to test the formulated hypotheses at a 0.05 significance level. Key findings highlight the presence of an active bush meat trade in and around Abeokuta, illustrating the engagement of local communities in this traditional practice.

1. Introduction

The deficiency in animal protein consumption is prevalent across both urban and rural communities Steyn & Mchiza (2014). This deficiency has been attributed to the inherent limitations in traditional sources of animal protein, such as poultry, cattle, sheep, and goats, as highlighted by Osti (2020) and Alao et al. (2017). Consequently, the exploration of alternative animal resources has become imperative, particularly due to their recognized therapeutic attributes (Silvipriya et al., 2015). In rural communities, bush meat has historically served as a primary protein source, serving various roles. While urban elites relish it as a delicacy, those in impoverished rural areas rely on it for sustenance (Gardner & Davies, 2014; van Vliet et al., 2015; Nielsen et al., 2018). This natural resource plays a crucial role in bridging the protein consumption gap for farmers, hunters, and other stakeholders. Notably, both men and women are actively involved in the entire value chain of the bush meat trade, encompassing activities from trapping to consumption (Alhaji et al., 2022).

Studies indicate that women constitute 43% of the agricultural workforce, a figure that rises to 70% in certain nations, and they contribute to 80% of agricultural output in rural areas (Patil & Babus, 2018; Sanghi et al., 2015). Women in rural locales assume roles encompassing the sale, processing, and transportation of agricultural produce to markets. The incorporation of bush meat into diets is rapidly gaining traction across various societal strata in Nigeria, evolving into a staple delicacy. In the rural regions of the South, bush meat accounts for approximately 20% of the annual protein intake, often

complementing fish, as noted by Nest (1992). Charter (1970) records that Southern Nigerians collectively spend $20 million annually on bush meat consumption, contributing to a nationwide expenditure of $30 million. Paradoxically, despite an annual consumption value of over $200 million for animal protein sourced from wild animals and freshwater fish (Afolayan, 1986; Olaoye, 2010), FAO (2006) classifies Nigeria as a protein-deficient nation.

Within Nigeria, affluent consumers express their penchant for bush meat by enjoying grasscutters, snails, and antelopes, which are either kept at roadside stalls or offered in upscale hotels and restaurants. Meanwhile, local residents engage in hunting, consumption, or trade of wild fauna. These trends underscore the increasing reliance on bush meat as a protein source for both sustenance and various applications. Consequently, ensuring effective trading and marketing of bush meat becomes paramount. Given the prevailing market dynamics, it becomes essential to evaluate the impact of trade on wildlife conservation, propose strategies to enhance trade practices, ensure sustainability, and manage the remaining wildlife resources. This underscores the pivotal role of the current study. However, this study specifically directs its focus on examining the bush meat marketing framework within the Abeokuta region of Ogun State.

2. Methodology

2.1 The Study Area

Ogun State, situated in the southwest region of Nigeria, encompasses Abeokuta as its state capital. Positioned on the eastern bank of the Ogun River, Abeokuta is nestled amidst a collection of rocky outcrops within a forested savanna landscape. The city is located at 77 kilometers (48 miles) from Lagos via train transportation, and 130 kilometers (81 miles) by sea, as reported by the McKenna (2023). In 2006, the population of Abeokuta and its surrounding environs was recorded at 449,088 individuals. Founded in the year 1830, Abeokuta occupies a significant place within Ogun State, Nigeria with coordinates of 7°9′39″N 3°20′54″E / 7.16083°N 3.34833°E, as shown in **Fig. 1**.

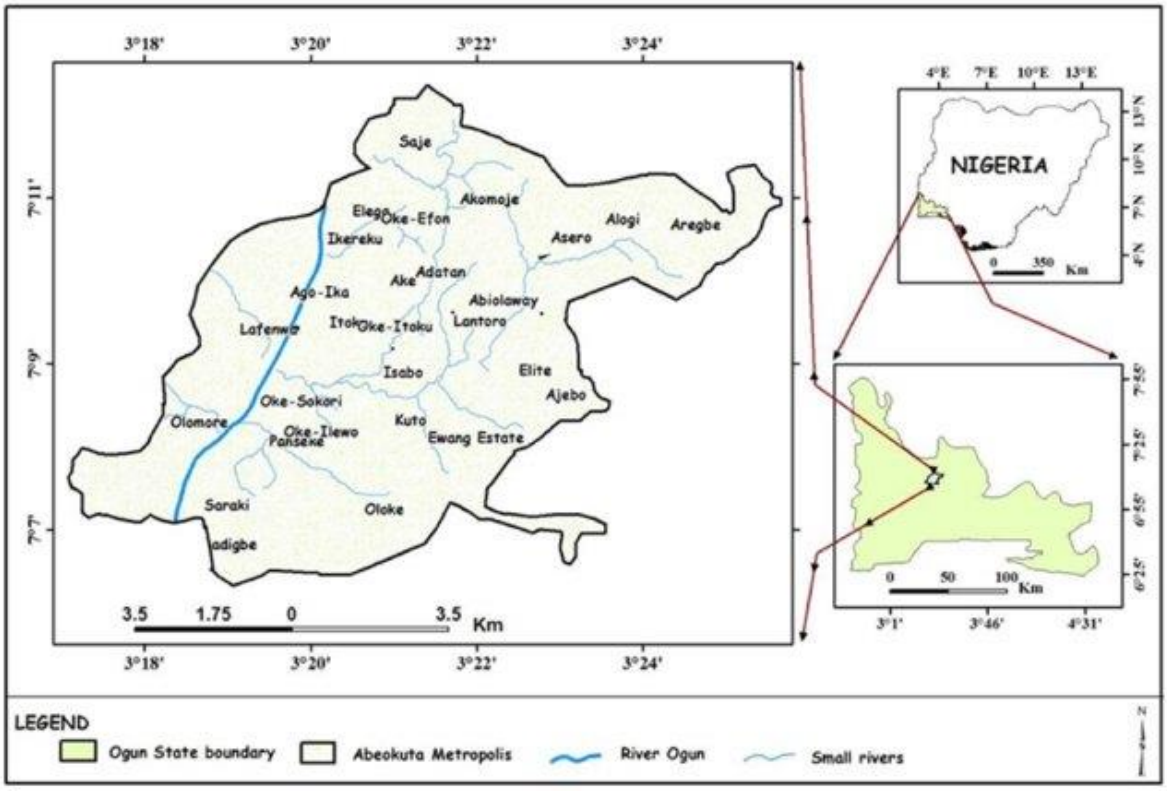

Fig. 1. Study area (Oluwasanya and Sadiq, 2019)

With an elevation of 66 meters (217 feet) above sea level, Abeokuta covers an area of 879 square kilometers (339 square miles) as of 2006. The city's population was recorded at 451,600, yielding a density of 510 individuals per square kilometer (1,300 individuals per square mile). In the broader metropolitan context, the population reaches 1,117,000. Abeokuta holds a historical significance as the administrative epicenter of Ogun State's government, a status established in 1976. Moreover, it holds a traditional distinction as the seat of the Local or Native Authority in Egba since 1898. This historical prominence has earned Abeokuta South Local Government the moniker of the "Premier Local Government." Among the 301 Local Governments instituted and whose elected councils were inaugurated in January 1977, Abeokuta Local Government takes its place, headquartered in Ake. However, in September 1991, the General Ibrahim Badamosi Babangida Administration sanctioned the establishment of both Abeokuta South Local Government, with its headquarters in Ake, and Abeokuta North Local Government, with its headquarters in Akomoje. Within the context of local breeds, the Egba Ake breed notably prevails in Abeokuta South Local Government. This breed is part of the broader Egba Alake, which comprises Egba Eku, Egba Aarin, and Egba Agbeyin.

2.2 Population, Sample Size, and Sampling Technique

The study's target population encompassed all bush meat sellers within the metropolitan area of Ogun State. The research employed a multistage sampling technique to select suitable respondents. The first stage involved the purposive selection of Abeokuta, driven by its concentration of bush meat sellers. Subsequently, the second stage entailed the purposive selection of three primary markets within Abeokuta South, denoted as Market I, Market II, and Market III. This selection was based on the prevalence of bush meat marketing activities within these markets. Moving to the third stage, a total of one hundred (100) respondents, comprising bush meat marketers, constituted the actual sample size for the study. To ensure representation, bush meat traders were stratified into three distinct categories: rural buyers, wholesalers, and retailers. Within each of the three markets, a random selection was made. This selection process yielded ten (10) rural buyers, ten (10) wholesalers, and ten (10) retailers in each market, except for Lafenwa, the largest among the markets, where twenty (20) retailers were selected.

2.3 Validity and Reliability of the Instrument

To establish the validity and reliability of the instrument, both face and content validity were meticulously assessed. This process involved the research supervisor, who thoroughly examined, corrected, and subsequently granted approval for the refined version of the instrument. Prior to commencing the main fieldwork, the researcher made necessary adjustments based on this scrutiny. To ascertain the reliability of the instrument, a pilot study was conducted employing the Kuder Richardson method. This preliminary phase involved the administration of the instrument to 20 bush meat marketers within the Abeokuta metropolis of Ogun State. Importantly, these individuals were distinct from those involved in the primary study. Through this pilot study, a coefficient of reliability was computed, yielding a value of 0.89. This outcome signified a commendably high level of reliability for the instrument, reinforcing its credibility for subsequent use.

2.4 Administrations of the Instrument

The chosen method for administering the instrument was the direct delivery technique. The researcher, in collaboration with trained research assistants, facilitated the administration process. Prior to the commencement of the study, the research assistants received comprehensive training to ensure their proficiency. In instances where respondents lacked formal education, the researcher provided clarifications and interpretations of the questionnaire's content. This approach fostered accurate completion of the questionnaires by the respondents. The meticulous execution of this administration strategy culminated in a remarkable 100% return rate of the distributed questionnaires, further affirming the effectiveness of the methodology employed.

2.5 Method of Data Analysis

The data collected from the field underwent a systematic sorting and analysis process. To rigorously test the formulated research hypotheses at a significance level of 0.05, inferential statistical techniques

were applied, specifically the F-test statistics and independent student's T-test. In line with statistical best practices, the selected significance level of 0.05 signifies that if the study were to be replicated a hundred times, the identical outcome would materialize in 95 out of 100 instances. Any observed deviations from this anticipated result would amount to ≤ 5 occurrences out of the hundred, predominantly ascribable to chance variability. This comprehensive approach to data analysis ensures the robustness and reliability of the study's findings while upholding the standards of statistical significance.

2.6 Research Instrument

The primary research tool utilized in this study was a meticulously constructed questionnaire known as the "Analysis of the Bush meat Marketing Questionnaire" (BMQ). Developed by the researcher through an extensive review of pertinent literature in the field, the questionnaire was meticulously tailored to cater to the study's specific requirements. Comprising four distinct sections (Sections A – D), the questionnaire's design was aimed at extracting comprehensive information concerning the pertinent variables under investigation. Notably, Section A encompassed participants' demographic information, while Section B comprised a set of ten items. Section C was comprised of five items, and Section D contained seven items. For uniformity and ease of response, each item within the instrument was structured as a binary choice, allowing respondents to select either "Yes" or "No." Crucially, all items within the questionnaire adhered to a positively structured framework, ensuring consistency and clarity throughout the data collection process.

3. Results and Discussions

3.1 Respondent conditions

Table 1 presents a geographical distribution of participants across randomly selected markets in Abeokuta Metropolis, Ogun State, including Iberekodo, Kuto, and Lafenwa. Complementing this, **Table 2** offers a detailed insight into the socio-economic attributes of respondents, enhancing our understanding of the demographic context within the study.

Table 1. The distribution of samples from the various randomly selected markets Abeokuta Metropolis Ogun State

Names of Markets	No. of Marketers
Iberekodo	30
Kuto	30
Lafenwa	40
Total	**100**

Table 2 provides an overview of the socio-economic characteristics exhibited by rural households. The distribution based on sex revealed that a significant majority, 76%, were female, underscoring the preponderance of females engaging in bush meat business. The age distribution of respondents further delineated the demographic landscape, with 30% falling within the 25 – 31 years age bracket, followed by 25% in the 32 - 38 years range. An additional 15% encompassed the 18 – 24 years category, while 12% and 10% were distributed among the 39-45 years and 46-52 years ranges, respectively. Respondents aged above 52 years constituted 8% of the total. Remarkably, a substantial 70% of participants belong to the economically active 18–48 years age group, signifying the predominance of physically active individuals within the bush meat business sector. A comprehensive analysis of the marital status of respondents revealed that 57% were married, with single, divorced, widow(er), and separated individuals accounting for 17%, 12%, 10%, and 4%, respectively. This distribution underscores the considerable impact of married households on the dynamics of bush meat business, distinguishing them as influential participants within the sector. The educational background of respondents highlighted that the majority, 39%, possessed primary education. Meanwhile, 30% had no formal schooling, 21% attained secondary education, and 10% obtained tertiary education. The prevalent incidence of limited education had discernible repercussions on the participants' engagement levels within the study area.

Table 2. Socio-economic characteristics of respondents

Variables	Frequency	Percentage (%)	Mode
Sex			
Male	24	24	
Female	76	76	Female
Total	**100**	**100**	
Age			
18 – 24 Years	15	15	
25 – 31 Years	30	30	25 – 31 Years
32 - 38 Years	25	25	
39-45 Years	12	12	
46-52 Years	10	10	
Above 52 Years	8	8	
Total	**100**	**100**	
Marital Status			
Single	17	17	
Married	57	57	Married
Divorced	12	12	
Widow(er)	10	10	
Separated	4	4	
Total	**100**	**100**	
Educational Status			
Primary education	39	39	Primary education
Secondary education	21	21	
Tertiary education	10	10	
None educated	30	30	
Total	**100**	**100**	
Major Occupation			
Farming	62	62	Farming
Trading	11	11	
Civil Servant	7	7	
Artisan	15	15	
Others	5	5	
Total	**100**	**100**	
Reason for getting involved in bush meat marketing			
Additional income	30	30	
Profession	15	15	
Hobby	7	7	
Family Business	43	43	Family business
Others	5	5	
Total	**100**	**100**	
Experience in bush meat marketing			
1-5 years	18	18	
6-15 years	22	22	
16-25 years	44	44	16-25 years
Above 25 years	16	16	
Total	**100**	**100**	
Household size			
1-3	25	25	
4-6	55	55	4-6
Above 6	20	20	
Total	**100**	**100**	
Income Realized per Week			
Less than ₦10,000	15	15	
₦10,000 - ₦20,000	65	65	₦10,000 - ₦20,000
Above ₦20,000	20	20	
Total	**100**	**`100**	
Sources of Finance			
Self-finance	67	67	Self-finance
Supports from family and friends	33	33	
Support from government	0	0	
Total	**100**	**100**	

Further inquiry into respondents' engagement revealed that a substantial 62% dedicated themselves exclusively to the bush meat business. Complementing this, 15% were artisans who harnessed the bush meat trade to bolster their earnings, while 11% were traders integrating bush meat activities for supplementary income. A contingent of 7% constituted civil servants who pursued the bush meat business to augment their salaries. An additional 5% represented a diverse array of occupational categories, yet similarly partook in the bush meat trade, underscoring the intricate interplay between this sector and diverse professions. Within the realm of motivations, approximately 43% of respondents engaged in the bush meat business due to familial legacy, while 30% sought additional income streams. Meanwhile, 15% embraced it as their primary profession, 7% due to personal interest, and 5% embarked on the bush meat business for undisclosed individual reasons.

The distribution of experience among respondents indicated that a substantial 44% fell within the 16-25 years' experience bracket, with 22% encompassing the 6-15 years' experience range. Respondents with 1-5 years' experience constituted 18%, while those with over 25 years of experience accounted for 16%. In totality, 66% of participants fell within the 6–25 years' experience brackets, indicating that the majority of bush meat business actors were seasoned and experienced marketers. Examining the distribution of respondents' household sizes, a significant 55% had family sizes ranging between 4-6 members, while 25% comprised families of 1-3 members. In addition, 20% reported having more than 6 members in their families. Regarding weekly income, a majority of 65% of respondents garnered incomes falling within the range of ₦10,000-20,000. An additional 20% of bush meat actors earned more than ₦20,000 weekly, while 15% recorded earnings below ₦10,000 per week. Cumulatively, 85% of participants within the study area earned incomes from ₦10,000 and above on a weekly basis.

Unveiling the financial sourcing patterns, it was revealed that a majority (67%) of respondents independently secured their finances through self-initiated efforts. On the other hand, 33% relied on support from family and friends for their financial resources, while none of the participants reported receiving financial backing from government sources.

Table 3. Identification of the species of bush meat offered for sale in the study area

S/no	Statements	Sample Size	Mean score	St. Deviation	Remarks
1	Python	100	1.65	0.0824	Agreed
2	Civet cat	100	1.78	0.2995	Agreed
3	Grass cutter	100	1.89	0.1023	Agreed
4	Stripped ground squirrel	100	1.72	0.0601	Agreed
5	African grass rat	100	1.88	0.1867	Agreed
6	Common gray duicker	100	1.74	0.1090	Agreed
7	Double spurred francolin	100	1.77	0.0157	Agreed
8	Pangolin	100	1.82	0.3375	Agreed
9	Bush pig (forest hog)	100	1.89	0.1152	Agreed
10	Water buck	100	1.90	0.0584	Agreed

Table 3 provides a comprehensive overview of the bush meat industry's species composition, along with corresponding mean scores and standard deviations. Notably, the identified species and their respective statistical values are as follows: Python (mean score: 1.65, standard deviation: 0.0824), Civet cat (mean score: 1.78, standard deviation: 0.2995), Grass cutter (mean score: 1.89, standard deviation: 0.1023), Stripped ground squirrel (mean score: 1.72, standard deviation: 0.0601), African grass rat (mean score: 1.88, standard deviation: 0.1867), Common gray duiker (mean score: 1.74, standard deviation: 0.1090), Double spurred francolin (mean score: 1.77, standard deviation: 0.0157), Pangolin (mean score: 1.82, standard deviation: 0.3375), Bush pig (forest hog) (mean score: 1.89, standard deviation: 0.1152), and Water buck (mean score: 1.90, standard deviation: 0.0584). This analysis showcases the breadth of bush meat species diversity and provides insights into their varying significance within the industry.

Table 4. Benefits of bush meat marketing in the study area

S/no	Statements	Sample Size	Mean score	St. Deviation	Remarks
1	Bush meat helps in earning primary and additional incomes.	100	1.62	0.0824	Agreed
2	It is good for people consumption.	100	1.86	0.4995	Agreed
3	It serves as a source of protein for rural dwellers.	100	1.75	0.1023	Agreed
4	It supplies hides and skins for shoe and bag making industries.	100	1.79	0.2501	Agreed
5	Bush meat is valued for its taste, cultural connotations, and as a luxury food item among the affluent people.	100	1.56	0.2667	Agreed

Table 4 presents an overview of the benefits associated with the bush meat industry, including their respective mean scores and standard deviations. The identified benefits encompass various aspects: bush meat contributes to both primary and supplementary incomes (mean score: 1.62, standard deviation: 0.0824), serves as a reliable source of human consumption (mean score: 1.86, standard deviation: 0.4995), offers a protein source for rural communities (mean score: 1.75, standard deviation: 0.1023), supplies hides and skins to industries (mean score: 1.79, standard deviation: 0.2501), and holds cultural and luxury value (mean score: 1.56, standard deviation: 0.2667). This analysis underscores the diverse and multifaceted nature of the benefits derived from the bush meat industry within the scope of this study.

Table 5. Constraints of bush meat trade in the study area

S/no	Statements	Sample Size	Mean score	St. Deviation	Remarks
1	Lack of storage facilities	100	1.92	0.1341	Agreed
2	High transportation costs	100	1.76	0.3624	Agreed
3	Inadequate funds	100	1.73	0.1223	Agreed
4	Inadequate supply	100	1.61	0.1945	Agreed
5	Low demand for bush meat by consumers	100	1.55	0.3612	Agreed
6	Seasonality in supply	100	1.59	0.1540	Agreed
7	Lack of investment capital	100	1.95	0.1119	Agreed
8	Poor pricing is one of the pressing marketing challenge confronting the sellers in bush meat business	100	1.78	0.2679	Agreed

Table 6 showed that bush meat industry faced the following constraints: Lack of storage facilities with mean score of 1.92 and standard deviation of 0.1341, High transportation costs with mean score of 1.76 and standard deviation of 0.3624, Inadequate funds with mean score of 1.73 and standard deviation of 0.1223, Inadequate supply with mean score of 1.61 and standard deviation of 0.1945, Low demand for bush meat by consumers with mean score of 1.55 and standard deviation of 0.3612; Seasonality in supply with mean score of 1.59 and standard deviation of 0.1540; Lack of investment capital with mean score of 1.95 and standard deviation of 0.1119; while poor pricing is one of the pressing marketing challenge confronting the sellers in bush meat business with mean score of 1.78 and standard deviation of 0.2679 was the last constraint of bush meat industry in this study.

3.2 Testing of Hypotheses

The process of hypothesis testing centers around evaluating the probability of accepting or rejecting a proposition. When the hypothesis being tested is substantiated by compelling evidence, we reject the null hypothesis (H0) in favor of the alternative hypothesis (H1). Conversely, if the evidence falls short, we uphold the null hypothesis (H0) and dismiss the alternative hypothesis (H1). The essence of

hypothesis testing lies in drawing conclusions or making decisions regarding how a parameter's value relates to a specific numerical value. In essence, it seeks to determine whether the parameter is less than, equal to, or greater than the specified number. Hypothesis testing serves as a tool for researchers to formulate inferences or decisions regarding the relationship between parameter values and specific numerical benchmarks. However, it's important to note that hypothesis testing aids in prediction rather than establishing causation, as it doesn't furnish absolute proof in this regard.

Hypothesis One

H0: bush meat business has no statistically significant benefits for its marketers.
H1: bush meat business has statistically significant benefits for its marketers.
Symbolically
Ho: $x = 2.5$
H1: $x \neq 2.5$
T test statistics = $\frac{\bar{x} - \mu}{s/\sqrt{n}}$
Where $\bar{x}$ = mean score of the sample or selected data (item) = 3.12
μ = mean score of the population = 2.5
s = standard deviation of the sample = 0.2175
n = total number of scores in the sample or selected data = 100
However, $s/\sqrt{n}$ = the standard error of the sample or selected data
Degree of freedom = n-1 where n = total number of scores in the sample
Alpha level (α) = 0.05

Table 7. Summary of t-test statistics on benefits of bush meat industry

Variables	N	Mean score	St Dev	DF	Tcal	Tcrit	Sig	Decision
Sample	100	3.12	0.2175	99	28.505	1.96	0.0002	Reject
Population		2.5						Ho

* P < 0.05
The asterisks indicated that bush meat business had statistically significant benefits for its marketers.

Decision rule: If the test computed or calculated value (absolute value of t-cal) is less than the tabulated or critical value (critical value of t-crit), Ho is maintained otherwise rejected.
Symbolically,
Reject Ho: if $t > t\alpha/2$ or if $t < -t\alpha/2$
Accept Ho: if $t < t\alpha/2$ or if $t > -t\alpha/2$
Where: $t\alpha/2 = 1.96$ and $-t\alpha/2 = -1.96$

Table 7 presents a compelling perspective, where the absolute value of the calculated t-test (t-cal) surpasses the critical value of t-crit at the 0.05 level of significance. Specifically, this comparison manifests as 28.505 being greater than 1.96 (with a corresponding probability of 0.05 being greater than 0.0002), signifying that the obtained outcome holds substantial significance at a 0.05 probability level. Given these findings, the researcher confidently rejected the null hypothesis (Ho), which posited that bush meat business lacked statistically significant benefits for its marketers. The logical inference drawn was that bush meat business indeed bore statistically significant benefits for its marketers. Notably, the sample size furnished adequate evidence to warrant the rejection of the null hypothesis, emphasizing that the observed distinction is purposeful rather than arising from statistical or sampling errors. Additionally, this outcome implies that the calculated t-test is likely to occur due to probability (chance) with a p-value less than 0.05.

Hypothesis Two

H0: lack of storage facilities for bush meat is not a major constraint to the bush meat business.
H1: lack of storage facilities for bush meat is a major constraint to the bush meat business.
Symbolically
Ho: $x = 2.5$
H1: $x \neq 2.5$

T test statistics = $\frac{X-\mu}{s/\sqrt{n}}$

Where $\bar{x}$ = mean score of the sample or selected data (item) = 3.56
μ = mean score of the population = 2.5
s = standard deviation of the sample = 0.6437
n = total number of scores in the sample or selected data = 100
However, s/√n = the standard error of the sample or selected data
Degree of freedom = n-1 where n = total number of scores in the sample
Alpha level (α) = 0.05

Table 8. Summary of t-test statistics on constraints facing bush meat industry

Variables	N	Mean score	St Dev	DF	Tcal	Tcrit	Prob > T	Decision
Sample	100	3.56	0. 6437	99	16.467	1.96	0.0002	Reject
Population		2.5						Ho

* P < 0.05

The asterisks indicated that lack of storage facilities for bush meat was a major constraint to the bush meat business.

Decision rule: If the test computed or calculated value (absolute value of t-cal) is less than the tabulated or critical value (critical value of t-crit), Ho is maintained otherwise rejected.
Symbolically,
Reject Ho: if t > tα/2 or if t < - tα/2
Accept Ho: if t < tα/2 or if t > - tα/2
Where: tα/2 = 1.96 and - tα/2 = - 1.96

The insights conveyed by Table 8 are notable, as the absolute value of the calculated t-test (t-cal) notably surpasses the critical value of t-crit at the 0.05 level of significance. Specifically, the comparison of 16.467 against 1.96 (with an associated probability of 0.05 exceeding 0.0002) underscores the meaningfulness of the obtained result at a 0.05 probability level. In light of these findings, the researcher confidently rejected the null hypothesis (Ho) asserting that the absence of storage facilities for bush meat isn't a pivotal constraint in the bush meat business. Rather, the conclusion drawn was that the lack of storage facilities indeed constitutes a significant constraint within the context of the bush meat business. Furthermore, the provided sample size furnishes ample evidence to support the rejection of the null or status-quo hypothesis. Importantly, the observed distinction is a conscious one and not a consequence of statistical or sampling errors. This outcome also suggests that the calculated t-test is likely to occur due to probability (chance) with a p-value below 0.05.

3.3 Benefits of Bush Meat Business for Marketers

The assessment of the hypothesis concerning the benefits derived from the bush meat business substantiates that the industry indeed yields statistically significant advantages for its marketers. The outcome is grounded in a t-test statistic of 28.505 (with a significance value of 0.0002) observed at the 0.05 level of significance. This underscored that within the three prominent markets (Iberekodo, Kuto, and Lafenwa) in Abeokuta, bush meat marketing encompasses a range of notable benefits (T = 28.505 at p<0.05). Consequently, it can be confidently inferred that bush meat business confers statistically significant benefits upon its marketers. These findings align with the research of Bifarin et al. (2008), who conducted an empirical study and reached the conclusion that bush meat markets exert a significant role in rural development. Their contributions encompass income generation, ensuring food security through protein provision, fostering connections among rural markets, and addressing gender-related considerations. Neo & Emel (2017) corroborated this view, emphasizing that the bush meat business augments the entire gamut of economic operations spanning the movement of agricultural goods from producers to final consumers.

In a broader perspective, marketing encompasses various dimensions of production, embracing risk management, pricing strategies, packaging, storage, and transportation. This finding echoes the insights of Heywood (2013), who emphasized that the benefits of bush meat are multifaceted: it facilitates

primary and supplementary income streams, is integral to human consumption, serves as a protein source for rural inhabitants, contributes hides and skins for industries, and carries value due to its taste, cultural significance, and appeal as a luxury food item among the affluent. The empirical evidence gleaned from this study strengthens the understanding that the bush meat business serves as a robust source of advantages for its marketers, thereby contributing to the intricate fabric of rural economies and broader market dynamics.

3.4 Lack of storage facilities

The evaluation of the hypothesis pertaining to the scarcity of storage facilities in the bush meat business reinforces the notion that the absence of storage facilities for bush meat significantly hinders the industry. The results, underscored by an absolute value of the t-test computation at 16.467 (with a corresponding significance of 0.0002) at the 0.05 alpha level, spotlight the prevailing challenge. Notably, this analysis underscores that among the selected markets, bush meat sellers grapple with inadequate storage infrastructure for their products ($T = 16.467$ at $p<0.05$). This outcome sheds light on the considerable constraint posed by the lack of storage facilities in the bush meat business. This finding aligns with the insights gleaned from Lameed and Alade (2013), who accentuated that challenges within the bush meat business encompass not only inadequate funds and supply, but also high transportation costs and notably, the deficiency of storage facilities. This concurrence is further substantiated by the findings of Jayeoba et al. (2013), who identified the lack of investment capital, poor pricing strategies, and seasonality in supply, alongside low consumer demand, as critical marketing challenges confronting participants within the bush meat business.

In sum, the empirical evidence underscores the significance of addressing the substantial obstacle posed by the dearth of storage facilities within the bush meat industry, accentuating the need for strategic solutions that can potentially enhance the operational landscape and mitigate the ensuing challenges.

4. Conclusion

The following conclusion was made from the study: bush meat business was being engaged in and around Abeokuta area of Ogun State; bush meat had variety of species that were offered for sale in the study area; bush meat had several challenges that were being faced by operators in the study area; bush meat business had statistically significant benefits for its marketers; lack of storage facilities for bush meat was a major constraint to the bush meat business. Finally, the findings of this study should be considered in the light of its further limitations apart from the ones highlighted in chapter one. Firstly, external validity was limited by the fact that selected participants were from one State zonal division. This means that the result applies only to Abeokuta metropolis in Ogun State. The generalizability of the results must await the outcome of future research employing samples of bush meat marketers in other zonal division of Ogun State.

In conclusion, this study sheds light on various aspects of the bush meat business in and around the Abeokuta area of Ogun State. It has been established that the bush meat industry is actively practiced in the region, offering a diverse array of species for sale. The challenges faced by operators within the industry are significant, yet the business itself yields statistically significant benefits for its marketers. However, the lack of storage facilities emerges as a significant constraint within the industry. It is imperative to acknowledge the study's limitations, including its restricted external validity due to the sample being drawn from a single zonal division. While these findings provide valuable insights specific to the Abeokuta metropolis, applying them to other zones within Ogun State requires caution. Future research endeavors should encompass a broader spectrum of bush meat marketers from various zonal divisions, enabling a more comprehensive understanding of the industry's dynamics and challenges. Overall, this study contributes to the body of knowledge surrounding traditional food systems and indigenous practices.

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