CONSUMPTION PATTERN OF POULTRY PRODUCTS AMONG RURAL AND URBAN HOUSEHOLDS IN EDO STATE, NIGERIA

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ABSTRACT

This study examined the consumption pattern of poultry products among rural and urban households in Edo state, Nigeria. The objectives were to examine the socioeconomic characteristics of poultry products consumers, identify the types of poultry products consumed by rural and urban households, compared the expenditure patterns on poultry products between rural and urban households, analyzed their household budget share, demand elasticity, assessed the factors influencing the consumption of poultry products among rural and urban households and identify the constraints to their consumption. These were achieved using frequency count, budget share, demand elasticity and linear regression. The result showed that there were more males than females in the study area, with a modal class of age ranging between 41-50years. Most of the respondents (73.3%) acquired tertiary education in the urban area, while most (51.7%) only acquired primary education in the rural areas. Average income level in the rural and urban centres was about ₦75,000 and ₦103,000 respectively, with trading being the most practiced occupation in the urban areas and artisan in the rural areas. Egg was the highest consumed poultry product (79.2%), while turkey was the lowest consumed (14.2%). Budget share was highest for food items, (53.99%) in urban and (70.61%) in rural areas, while the budget share for poultry products was (4.83%) and (5.14%) in urban and rural areas respectively. Sex, household size, income, education level and price of poultry products were significant determinants of household expenditure on food. Low income (2.90), lack of knowledge of food quality (2.55), high prices (3.43), and large household size (2.56) in rural areas, while low income (3.08) and high prices (3.48) in urban centres were found to be the serious constraints to poultry product consumption in the study area.

Keyword: Poultry product, Consumption, Demand elasticity, Urban Household.

INTRODUCTION

Poultry products are nutritious and add variety to the human diet. Although hens provide the majority of the products, ducks and turkeys are also significant suppliers. Some of the products include: chicken meat, turkey meat, quail meat, duck meat, and eggs. Rich in necessary amino acids and relatively inexpensive to procure, poultry eggs are a good source of protein. An adult's daily requirements for selenium, vitamin B_{12}, choline, riboflavin, protein, phosphorus, vitamin D, folate, 8%, 6%, iron, and a tiny amount of zinc are all met by eating eggs, which are also a significant source of energy (Clayton, Fusco and Kern, 2017). It has been suggested that consuming one to three eggs daily is ideal (Food and Agriculture Organization, (FAO), 2019). According to Adichle,Agunwamba, Uche, Amadi, and Adegbola (2015), eating eggs is a healthy method to include proteins, lipids, vitamins, and minerals in your diet. Because poultry and its products are nutrient-dense and high-quality sources of protein, they are essential to household meals. Low fat levels with a healthy balance of fatty acids accompany this (Food and Agriculture Organization, 2018). The quantities, ratios, variety, and frequency with which various meals and beverages are regularly ingested during diets are referred to as food consumption patterns. It can also be seen

as the assortment of foods that make up a person's typical dietary intake during specific times of the year (Nolla, 2014). Food consumption habits are a basic indicator of an individual's economic performance, living standards, and nutritional well-being (Nolla, 2014).

The two main methods used to assess households' living standards are consumption and income levels. A nation's consumption pattern, which typically accounts for around 60% of the GDP of the country, shows the entire demand for goods and services in that nation (National Bureau of Statistics, (NBS), 2019). The consumption pattern also reveals the welfare and poverty levels of a country. In poor nations such as Nigeria, the eating pattern typically leans more toward less expensive basic and starchy foods and less toward higher-quality proteins, fruits, and vegetables. Reports from the National Bureau of Statistics (NBS) in 2019 on Nigerian consumer expenditures revealed that just 2.19% of all expenditures in the nation and 3.86% of all food expenditures were related to poultry items. For smallholder farming households, poultry products provide high-quality animal protein sources at a cheap price. Poultry products are consumed in extremely small quantities by rural households. Furthermore, eating poultry is strongly correlated with one's financial standing. Poultry products are consumed less in households with lower incomes (Bush, 2016).

It has been discovered that urban areas consume more poultry products than rural ones (Hussain, 2018). A commodity's consumption is influenced by a wide range of factors, such as the consumer's income, changes in the distribution of their income, the commodity's price, changes in the price of related goods, the consumer's taste and preference, price expectations, the population, cultural beliefs, the weather, age, and health status, among others.

The most populous country in sub-Saharan Africa is Nigeria. Roughly 47% of people live in cities, where population growth is predicted to be three times faster than in rural regions (World Bank, 2019). This points to a shift in the demand for food from rural to urban areas. Government policies typically work against rural communities and in favor of metropolitan residents. Rural households have seen considerable poverty over the last few decades compared to urban households. According to Ahmed and Gruhn (2015), urbanization is a significant non-income factor that explains the shift in the demand for animal protein. Nigeria has a diversified population with a range of physical, social, agroclimatic, and cultural/ethnic dietary preferences. As a result, there are variations in consumer behavior and the demand for poultry products (Jabbar and Di Comenico, 2013).

Reaching the international nutritional standards for poultry products—either the meat or the eggs—is quite tough for the average Nigerian. In many tropical developing nations, the discrepancy between the estimated and real consumption of protein is growing (Inyang, Adebayo and Anyanwu (2014). According to reports, Nigerians consume 10g of animal protein on average per day, compared to the minimal requirement of 35g per day (FAO, 2019). Therefore, malnutrition affects the vast majority of Nigerians. Little infants between the ages of one and three are especially susceptible to protein deficiency, according to Maliafia, Onakpa and Owoleke (2010). They eat low-protein diets at this point, which causes irreparable mental and physical impairment. He went on to say that children in less developed nations who endure extreme poverty are more at risk for health problems due to a combination of protein malnutrition and recurring illnesses. A youngster aged one to three years old can get more than one-third of their daily intake for protein and more than half of their daily requirement for methionine and cysteine from just one egg.

Despite the increasing number of households involved in the raising of poultry and its' products, the problem of malnutrition persists. This can be attributed to its expensive cost, which makes people unable to afford it regularly. As a result, these products are typically consumed only during special occasions, rather than as part of everyday meals. Another finding is that there is still a significant gap between the supply and demand for poultry

products. This gap exists because the prices of locally produced chicken and eggs are high, and they are often imported from other countries, which can make them even more expensive. These imports compete with local production, exacerbating the problem by further limiting the availability of affordable chicken products for people who need them most.

This study is therefore designed to examine the consumption pattern of poultry products among rural and urban households in Edo State, Nigeria**.** Specifically, the study described the socio-economic characteristics of the respondent, identify the types of poultry products consumed by rural and urban households, compared the expenditure patterns on poultry products between rural and urban households, analyzed their household budget share, demand elasticity, assessed the factors influencing the consumption of poultry products among rural and urban households and constraints to their consumption.

Methodology

The study was carried out in Edo State. The State is an agrarian one with a total land area of 17,802 km2 and an estimated population of over three million people. The State lies roughly between longitude 05° 04¹ and 06° 44¹ East of Greenwich Meridian and latitude 05° 44¹ and 07° 34¹ North of the Equator. It is bound in the North by Kogi State, in the South by Delta State, in the West by Ondo State, and in the East by Kogi and Anambra States. Administratively, the state is divided into three senatorial districts with 18 Local Government Areas (LGAs). Edo South, Central and North senatorial districts have seven (7), five (5), and six (6) LGAs, respectively.

In selecting representative samples, a multi-stage sampling procedure was employed with the following stages. First, of the three agro-ecological zones in the state, one (Edo South) was chosen using random sampling. In the second stage, two Local Government Areas (Uhunmwonde and Oredo) in the zone designated as having Rural and Urban communities, were purposively sampled. These areas were chosen based on various indices, including industrialization, social amenities, established roadways, primary occupation, and overall modernization of the communities. Three settlements were chosen from each Local Government Area for the third stage. Uzalla, Ayen and Egba from Uhunmwonde, and GRA, New Benin II and Iyaro from Oredo Local Government Area. The fourth and final stage involved selecting 20 households, for a total of 120 respondents, from each community using a straightforward random sample technique**.**

Descriptive statistics, budget share, price and income elasticity and linear regression were used to analyse the data collected.

The regression model used is stated below:

$$C = f(X_1, X_2, X_3, \ldots X_n).$$

The model can be explicitly specified as:

$$C_i = ß_0 + ß_1X_1 + ß_2X_2 + ß_3X_3 + \ldots ß_7X_7 + e_i$$

Where C_i = Monthly expenditure on poultry products

$ß_0$ =Constant

$ß_i$ =Coefficient of explanatory variables $X_1 – X_7$

X_1 = Gender (Male = 1, Female = 0)

X_2 = Marital status (married = 1, single = 0)

X_3 = Age (years)

X_4 = Household size

X_5 = Level of Education

X_6 = Monthly income (?)

X_7 = Occupation (1 = farmer, 0 = otherwise)

e_i =Error term

The budget share model used is stated below:

$$\omega_i = \frac{p_i q_i}{M}$$ (Meyer, Yu and Abler, 2011).

Where, p_i= unit price of the ith commodity
q_i= quantity bought of the ith commodity
M= Total expenditure
ω_i= budget share of the ith commodity

The demand elasticity model is stated below:

Price elasticity of demand = $\frac{\text{percentage change in quantity demanded}}{\text{percentage change in price}}$

$$Ep = \frac{\left(\frac{\Delta q}{q}\right)}{\left(\frac{\Delta p}{p}\right)}$$

Where: Ep = price elasticity of demand
? q = change in quantity demanded
? p = change in price

Income Elasticity

This is given as: = $\frac{\text{percentage change in quantity demanded}}{\text{percentage change in income}}$

$$E_I = \frac{\left(\frac{\Delta q}{q}\right)}{\left(\frac{\Delta y}{y}\right)}$$

Where: Ei = Income elasticity
? q = change in quantity demanded
? y = change in the income of consumer

Results and Discussion

Socio-economic characteristics of respondents

The result showed that about 45.8% of respondents were female, with 54.2% of respondents being men. This demonstrates that men are the primary breadwinners in the home; they supply the money needed to maintain daily operations, especially those related to nutrition and food. This result agrees with that of Toluwase and Kolapo (2017), who discovered that there were more men than women in Rural and Urban households of Ondo State. In the rural areas, 56.7% of the respondents were female and 43.3% were male; in the urban centers, the ratio was 35.0% female and 65.0% male. This indicates that the proportion of females in rural areas was higher, while urban households had a higher proportion of males. This could be due to polygamy, which places women in charge of raising their offspring and therefore taking on the role of head of the family. Furthermore, the findings show that majority of the household heads in the study area, with a mean age of 38, fell within the age range of 21 to 50. People in this age group will need to consume enough protein, especially poultry

products, to sustain healthy lives (Godfrey, Ibiyinka, and Grace (2020). Also, it was found that majority of respondents (48.3%) had a household size range of 1-3, which qualifies as the small class of household size, based on the findings of Ojogho, Imoudu and Erhabor, (2008). The result showed, however, that the modal household size (40.0%) was 4-6 in the rural area with an average of 5 persons per household, while that of the urban (70.0%) fell between 1-3 with an average of two persons per household. This shows that rural dwellers have a larger household size compared to those in urban areas, meaning they have more mouths to feed.

It was also found that the majority of respondents (42.5%) had tertiary education. In the urban centres, about 73.3% of respondents acquired tertiary education, while in the rural areas, only 11.7% acquired tertiary education and 36.7% secondary education. This implies that majority of the respondents had attained one form of formal education or the other, which is significant as education can equip individuals with skills and knowledge that may be beneficial in their consumption. This may also imply that urban households are more likely to consume more poultry products than rural ones, since they may be better aware of nutritional issues, particularly protein intake. Level of education may be a significant determinant of poultry consumption. This agree with the findings of Godfrey *et al*, 2020 in Jos-North, Plateau state, Nigeria, where the level of education was found to be a significant factor in the demand for poultry products.

Table 1: Socioeconomic Characteristics of Poultry Products Consuming Households

Categories	Urban		Rural		Pooled	
	Freq	%	Freq	%	Freq	%
Sex						
Male	39	65.0	26	43.3	65	54.2
Female	21	35.0	34	56.7	55	45.8
Total	60	100.0	60	100.0	120	100.0
Age (Years)						
= 20	8	13.3	0	0.0	8	6.7
21 – 30	27	45.0	5	8.3	32	26.7
31 – 40	9	15.0	19	31.7	28	23.3
41 – 50	14	23.3	19	31.7	33	27.5
51 – 60	2	3.3	15	25.0	17	14.2
> 60	0	0.0	2	3.3	2	1.7
Total	60	100.0	60	100.0	120	100.0
Mean (Standard Deviation)	32.02 (11.28)		44.77 (9.34)		38.39 (12.14)	
Marital Status						
Single	38	63.3	8	13.3	46	38.3
Married	19	31.7	43	71.7	62	51.7
Divorced	1	1.7	1	1.7	2	1.7
Widow	2	3.3	8	13.3	10	8.3
Total	60	100.0	60	100.0	120	100.0

Household Size (Persons)						
1 – 3	42	70.0	16	26.7	58	48.3
4 – 6	18	30.0	24	40.0	42	35.0
7 – 9	0	0.0	15	25.0	15	12.5
> 9	0	0.0	5	8.3	5	4.2
Total	60	100.0	60	100.0	120	100.0
Mean (Standard Deviation)	2.67 (1.32)		5.42 (2.55)		4.04 (2.45)	
Interval	1 – 6		1 – 12		1 – 12	
Religion						
Christian	55	91.7	49	81.7	106	86.7
Muslim	5	8.3	11	18.3	16	13.3
Total	60	100.0	60	100.0	120	100.0
Educational Level						
Primary Education	0	0.0	31	51.7	31	25.8
Secondary Education	16	26.7	22	36.7	38	31.7
Tertiary Education	44	73.3	7	11.7	51	42.5
Total	60	100.0	60	100.0	120	100.0
Mean (Standard Deviation)	102883.33 (92255.19)		75133.33 (37149.02)		89008.33 (71401.05)	
Interval	18,000 – 500,000		40,000 – 200,000		18,000 – 500,000	
Monthly Income (Other Members) (₦)						
= 50,000	53	88.3	56	93.3	109	90.8
50,001 – 150,000	6	10.0	4	6.7	10	8.3
150,000 – 250,000	1	1.7	0	0.0	1	0.8
> 250,000	0	0.0	0	0.0	0	0.0
Total	60	100.0	60	100.0	120	100.0
Mean (Standard Deviation)	27066.67 (40279.06)		18000 (21827.52)		22533.33 (32578.01)	
Interval	0 – 200,000		0 – 80,000		0 – 200,000	
Occupation						
Artisans (Farmers, Engineers and Mechanic)	4	6.7	38	63.3	42	35.0
Trader	35	58.3	17	28.3	52	43.3
Civil Servant	7	11.7	5	8.3	12	10.0
Student	1	1.7	0	0.0	1	0.8
Data Analyst/Software Engineer	6	10.0	0	0.0	6	5.0
Fashion Designer/Stylist	3	5.0	0	0.0	3	2.5
Social Media Personnel	1	1.7	0	0.0	1	0.8
Operations Manager/Project Manager	3	5.0	0	0.0	3	2.5
Total	60	100.0	60	100.0	120	100.0

Poultry products consumed in the study area

Results in Table 2 show the poultry products consumed in the study area. The findings indicated that, of the poultry products consumed, eggs accounted for the highest consumption (79.2%), while turkey accounted for the least consumption (14. 2%). In addition, 42.5% of the respondents consumed chicken meat, while none of the respondents (0%) consumed duck and quail meat respectively. The absence of eating duck and quail meat could be attributed to cultural beliefs, a lack of understanding of their edibility, or a preference. The high cost or local preferences may be the cause of the limited consumption of turkey meat in the study area. On the other hand, based on the analysis of determinants of poultry products consumption in the research region, the overall low consumption of poultry products may be due to high cost of poultry products, along with a few other significant factors. Additional analyses revealed that poultry products were consumed more in the urban centres than in rural areas. This finding is consistent with Salawu, Ibrahim, Lamidi and Sodeeq (2014), who found that in the Ibadan Metropolis, turkey was consumed less frequently than chicken

Table 2: Poultry products consumed in the study area

Poultry Products	Urban		Rural		Pooled	
	Freq	%	Freq	%	Freq	%
Chicken Meat	30	50.0	21	35.0	51	42.5
Turkey Meat	12	20.0	5	8.3	17	14.2
Eggs	50	83.3	45	75.0	95	79.2
Duck Meat	0	0.0	0	0.0	0	0.0
Quail Meat	0	0.0	0	0.0	0	0.0

Household expenditure distribution in study area

The result of the analysis of the expenditure distribution of the households in Table 3 shows that the total average monthly expenditure is significantly higher for urban households (₦111,437.08) compared to rural households (₦53,115.72), indicating a considerable income disparity between urban and rural households. Expenditure was highest for food items, in urban (53.99%) and in rural areas (70.61%), while expenditure for clothing was the lowest at 3.53% in urban and 0.95% in rural areas. Expenditure for poultry products was 4.83% in urban and 5.14% in rural areas. The reduced expenditure for poultry products in the urban centres can be connected to the increased expenditure on non-food items, as the cost of living in the urban centres often drives individuals to aim to meet their basic energy requirements by consuming starchy staples, rather than high-quality foods such as poultry. Average monthly expenditure on food items was lower in the rural centres than in the urban centres possibly because farming was practised more in the rural centres, thereby reducing their need to buy food items, as they can obtain certain essential food items from their farms.

Table 3: Household budget share on specific items.

Expenditure	Urban		Rural	
	Average Monthly Expenditure (₦)	% Share of The Budget	Average Monthly Expenditure (₦)	% Share of The Budget
Poultry Product	**5387.50**	**4.83**	**3036.83**	**5.14**
Other Food Commodity (Including Other Meat and Fish)	60170.00	53.99	37503.33	70.61
Transport	14603.33	13.10	5563.33	10.47
Electricity	4403.33	3.95	2230.00	4.20
Rent	10211.11	9.16	1546.11	2.91
Clothing	3930.56	3.53	506.94	0.95
Education	12731.25	11.42	2729.17	5.14
Total Expenditure	111437.08	100.00	53115.72	100.00

Difference between the expenditure patterns of poultry products among rural and urban households

The result showed that on average, the difference in the level of consumption of rural and urban households was ₦2350.67. The result also revealed that the t-value was 2.292, which was significant at a 5% level of significance, indicating a significant difference in the level of consumption of poultry products among rural and urban households in the study area. It indicates that urban households spend significantly more on poultry products than rural households. The significant difference in the level of consumption may be attributed to household size, level of education, and income. The urban households have more educational backgrounds, earn more, and have fewer members of households, allowing them to consume more and better than the rural households with less knowledge, lower income, and larger households.

Table 4: Difference between the expenditure patterns of poultry products among rural and urban households

Category	Mean	Difference	Standard Deviation	t- Value	Prob. Level	Decision
Urban	5387.50	2350.67	6761.27	2.292*	0.0237	Significant
Rural	3036.83		4167.95			

*Significant at 5%

Determinants of household expenditure on poultry products

The result of the regression analysis explaining the determinants of household expenditure on poultry products presented in Table 5 shows that in the rural area, the price of poultry products is a significant determinant at a 1% level of significance. This means that changes in the price of poultry products have a strong influence on how much people consume. If the price of poultry products rises, people may consume less, especially those with lower incomes. Price sensitivity is higher because poultry can be a

relatively expensive item, and in households with limited financial resources, it might be seen as a luxury or something they only purchase occasionally. Household size and educational level are positive and significant at 5% level of significance. This suggests that as household size increases, expenditure on poultry products also increases. This may be due to higher consumption needs in larger households. Those with higher education are more likely to prioritize health and nutrition, which could make them more willing to purchase poultry products. The income of the household is a significant determinant at 10% level of significance, meaning that as a household's income rises, the consumption of poultry products also tends to increase. Higher-income households are more likely to afford poultry products regularly as part of their diet.

However, in urban areas price of poultry products is also a significant determinant at 1% level of significance, monthly income and educational level are significant at 5% level of significance and sex and household size are significant at 10% level of significance. In both rural and urban areas, the price coefficient was positive at 0.908 and 1.397, respectively, indicating that consumers' spending on poultry products grows in tandem with price increases. This may be attributed to a number of factors some of which are; As prices for poultry products rise, consumers may adjust their income allocation. If consumers' income levels are also rising (or if they are more willing to spend on food in general due to economic conditions), they may be more able or willing to absorb the price increases, leading to a rise in expenditure despite the price hike. In urban areas, there may be higher disposable incomes and more varied consumer choices. However, urban consumers may be less price-sensitive due to convenience factors and greater availability of various poultry products. They might also have more access to different markets or brands where the quality and convenience of poultry products could justify higher prices. While in rural areas, people may be more price-sensitive, they may rely more on locally sourced or lower-cost poultry, which could still experience a positive response in consumption even if prices rise. Additionally, rural consumers might be willing to pay slightly higher prices for poultry if the products are of better quality, fresher, or perceived as healthier. This finding contradicts that of Godfrey et al. (2020), who found that household spending on poultry items was negatively impacted by price. Both in rural and urban areas, the educational level coefficient was positive, indicating that spending on poultry rises with education level. This could imply that eating richer foods is encouraged as one's knowledge increases. The amount spent on poultry goods increased as household size increased and other factors remained constant, indicating that household size was a positive driver of poultry product spending. This is consistent with the findings of Godfrey et al. (2020), who found that the demand for poultry products was positively impacted by price and household size. Sex was found to have a significant negative effect on the expenditure on poultry products in urban areas. This suggest that males spend less on poultry products compared to females. This could indicate a gender-based difference in consumption preferences. Income had a positive relationship with expenditure on poultry products, suggesting that as the income of households increases, their expenditure on poultry products increases. This may be attributed to an increase in the purchasing power of the households. This may also suggest that poultry products are a normal good. The R^2 value was 0.8378 and 0.6495 for rural and urban areas, respectively, meaning that about 83% and 64% of the variation in the expenditure on poultry products is explained by the variation in the predictor variables. The F value is statistically significant, indicating the overall model is a good fit.

Table 5: Determinants of household expenditure on poultry products for Rural Households

Variables	Coefficient	Standard Error	t Value
Constant	-709.522	2195.212	-0.323
Sex	-508.776	500.874	-1.016
Age	3.575	34.435	0.104
Marital Status	-500.236	353.932	-1.413
Household Size	149.482	74.321	2.011**
Monthly Income	0.013	0.007	1.924*
Occupation	-8.778	101.225	-0.087
Educational Level	942.935	429.678	2.195**
Price of Poultry Product	0.908	0.066	13.659***
R Squared		0.8378	
Adjusted R Squared		0.8124	
F – Value		32.94	

***Significant at 1% level of Significance
**Significant at 5% level of Significance
*Significant at 10% level of Significance

Table 6: Determinants of household expenditure on poultry products for Urban Households

Variables	Coefficient	Standard Error	t Value
Constant	-10701.900	5193.618	-2.061
Sex	-2022.184	1138.309	-1.776*
Age	82.325	105.336	0.782
Marital Status	-1269.975	1592.115	-0.798
Household Size	711.793	417.123	1.706*
Monthly Income	0.009	0.004	2.058**
Occupation	82.696	263.401	0.314
Educational Level	3311.454	1389.678	2.383**
Price of Poultry Product	1.397	0.193	7.235***
R Squared		0.6495	
Adjusted R Squared		0.5945	
F – Value		11.81	

Source: Field survey, 2024
***Significant at 1% level of Significance
**Significant at 5% level of Significance
*Significant at 10% level of Significance

Demand elasticity of poultry products

The result presented in Table 7 shows that the income elasticity of demand was 0.172 in the urban centres and 0.202 in rural areas. This means that for every ₦1 increase in the price income of households, there is an increase of ₦0.172 and ₦0.202 in household expenditure for poultry products. This suggests that a 1% increase in income results in a 0.172% and 0.322% increase in expenditure on poultry products among the urban and rural households, respectively. This indicates that rural households are more responsive to income changes concerning poultry product consumption. The income elasticity is greater than zero and less than one, which implies that poultry products are normal goods and a necessity. The price elasticity of demand for poultry products was 0.781 and 0.795 in urban and rural areas, respectively, suggesting that a 1% increase in the price of poultry products leads to a 0.781% and 0.795 % decrease in demand among urban and rural households. Price elasticity is less than one, which implies the demand for poultry products is price inelastic; therefore, the consumer does not significantly reduce the demand for poultry products when the price rises.

Table 7: Demand elasticities for poultry products

	Urban	Rural
Coefficient of Income (-)	0.009	0.013
Coefficient of Price (-)	1.397	0.918
Average Price of Poultry Products (₦)	3010.17	2657.83
Average Income (₦)	102883.30	75133.33
Average Consumption (Amount Spent on Poultry Product) (₦)	5387.50	3034.83
Income Elasticity of Demand (e)	0.172	0.322
Price Elasticity of Demand (e)	0.781	0.795

Constraints to Poultry Product Consumption

The result in Table 8 showed that high prices of poultry products were the most serious constraint to poultry products consumption, with a mean of 3.48 and 3.43 in the urban and rural areas respectively. However, some notable constraints were low income (mean =3.08) for urban centres while for rural areas we had low income (mean = 2.90), lack of knowledge on food quality (mean = 2.55) and large household size (mean = 2.56). This constraint of lack of knowledge of food quality which is more pronounced in rural areas, indicates a knowledge gap regarding the nutritional aspect of poultry products among rural households.

Table 8: Constraints to poultry products consumption

Constraints	Urban		Rural		Pooled	
	Mean (-)	**S.D** (s)	**Mean** (-)	**S.D** (s)	**Mean** (-)	**S.D** (s)
Low Income	3.08*	0.869	2.90*	0.775	2.99*	0.825
Lack of Knowledge on food quality	1.52	0.833	2.55*	0.999	2.03	1.053
High prices of poultry products	3.48*	0.770	3.43*	0.745	3.46*	0.755
Health Constraints	1.72	0.976	1.85	0.954	1.78	0.963
Unavailability of poultry products	1.68	0.813	1.67	0.896	1.68	0.852
Lack of storage facilities	1.80	0.953	1.88	0.885	1.84	0.917
High perishability of poultry	1.92	0.907	2.00	0.883	1.96	0.893
Nearness to market	1.72	0.976	2.00	0.921	1.86	0.955
Large household Size	1.22	0.555	2.56*	1.118	1.88	1.106

Conclusion

It is therefore concluded from the study that poultry products such as chicken meat, turkey meat and eggs are consumed by both rural and urban households in the study area. However, consumption level of urban household was found to be significantly higher than that of rural households in the study area. Furthermore, the study established that budget share for food was highest for both rural and urban households. Urban household had higher income and also higher expenditure on food and poultry product but the rural household had higher budget share. Household size, monthly income and price of poultry product significantly influenced the expenditure on poultry products. Poultry products were observed to be normal goods and price inelastic such that increase in income will lead to its increase in consumption. Finally, in both rural and urban areas, low income and high prices were identified as major constraints to poultry product consumption. Additionally, rural households were more affected by lack of knowledge regarding food quality and large household sizes, which further constrained their purchasing power and consumption capacity. Urban households, on the other hand, were more constrained by higher prices, despite higher income levels.

Recommendations

Based on the findings of this research, the following recommendations are put forward:

1. Sensitizations and reiteration of the importance of consumption of poultry products should be carried out regularly by government health agencies.
2. Adult education should be encouraged and sponsored by government agencies such as the local government councils, in the rural areas as majority of the respondents were between middle and old age, with majority

having primary education and few with secondary education. Hence, they lacked knowledge on the importance of consumption of poultry products.

3. Government should create an enabling environment for the improvement of the livelihood and income of households as there was a positive relationship between the income of households and their expenditure on poultry products.
4. Educational campaigns should be developed by government ministries of health and agriculture to raise awareness of the nutritional benefits of poultry products, focusing on rural households to bridge knowledge gaps.
5. High prices of poultry products is a very discouraging factor in its consumption, hence government should formulate policies that support the growth of poultry subsector and leads to reduction in the prices of poultry products by subsidizing the cost of inputs and technology which will reduce cost of production and improving upon the poultry value chain making them more available and affordable.

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