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Consumption and Consumer Preference for Poultry Meat Types in Ibadan Metropolis

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Abstract
The study examined consumption and consumer preference for poultry meat types in Ibadan metropolis. Multi-stage sampling technique was used to select the respondents for the study.Primary data were collected with the aid of questionnaire and analyzed using descriptive statistics and multinomial logit regression. The result of the study revealed that majority of the respondents were male (52.7%) within the age bracket of 21-30 (36.7%).Most of them are married (49.3%) with tertiary education (59.3%) and household size of 1-5 (81.3%).The study also revealed the availability of four poultry meat types which are broiler (98.6%),cockerel (98.6%), layer (96.7%) and turkey (96.7%).The respondents show different level of preference for the meat types recording total of 94.7% for broilers,93.3% for cockerel and turkey while 90% was recorded for layers.The multinomial logit regression shows that broiler is the most preferred with 40% followed by turkey (33.3%), layers (14.7%) and cockerel (12%).The result also revealed that age,educational level, availability of substitute,sex, appearance of meat and taste are significant factors that influence consumer preference for poultry meat types.The study therefore recommend that poultry farmers should go into the production of the birds that are highly preferred and mostly consumed by their customers to boost their income as well as livelihood.
Keywords: Consumption, Consumer Preference, Poultry Meat Types.

1.Introduction.

The necessity of securing the food supply in terms of quality and quantity for the increasing population, as well as the need for animal proteins, health problems due to nutrition, and consumers' awareness and tendency to maintain a healthy and balanced diet, have all made the

Poultry sector a significant industry throughout the world.(Yilmaz et al 2013).

Poultry sub-sector is particularly a vital source for the supply of animal protein in the daily diet of the average household. With its high feed conversion efficiency, it has gained a price advantage over other types of meat and has become the meat of choice for many households (Iddamalgoda *et. al*., 1998).Poultry birds include chicken, goose,duck,quail,ostrich,turkey,pigeon ,gouse and pheasant.They can all be raised domestically and commercially to produce food as well as income to the farmer.

FAO (2009) estimated world poultry meat production at 91,307.582 tonnes and identified USA (18.982.752 tonnes), China (16.437.587 tonnes) and Brazil (10.385.331 tonnes) as leading producing countries.It was further estimated that yearly poultry meat consumptions per capital were 50.59, 31.66, 11.84 and 20.78 kg in USA, Brazil, China and EU countries, respectively.

According to FAO 2006, livestock sector is vital to the socio-economic development of Nigeria. It contributes about 9-10% of agricultural GDP. Moreover, Nigeria's chicken population is about 150.682 million (UNDP, 2006) of which 25% are commercially farmed, 15% semi-commercially, and 60% in backyards. Consequently, livestock represents an important source of high quality animal protein, providing about 36.5 per cent of the total protein intake of Nigerians. It is one of the highest investments in agriculture with net worth of N250 billion(aicpnigeria,org). The poultry sub-sector is the most commercialized of all of Nigeria's agricultural sub-sectors. Poultry are raised for their meat and eggs, and are an important source of edible animal protein. Poultry meat accounts for 30% of global meat consumption. The worldwide average per capita consumption of poultry meat has nearly quadrupled since the 1960s (11 kg in 2003 compared with 3 kg in 1963)(FAO,2009). The meat is rich in proteins and is a good source of phosphorus and other minerals, and of B-complex vitamins. Poultry meat contains less fat than most cuts of beef and pork. Poultry liver is especially rich in vitamin A. It has a higher proportion of unsaturated fatty acids than saturated fatty acids. This fatty acid ratio suggests that poultry may be a more healthful alternative to red meat (Encyclopedia Britannica).Though the poultry industry in Nigeria had been rapidly expanding in past years, increasing from 185,300 MT in 2001 to 268,000 MT in 2011, the production and consumption of this product in Nigeria is lower compared to developed countries of the world .FAO (2011) still identify increase in poultry meat consumption in recent years and the need for increase production.

2.Consumer Preference.

Norman 2010 opined that information about consumers' desires, and how much they want of different items and services is of value to producers, merchants, and even to consumers themselves. Information on consumers'

preferences enables producers and merchants to gain in that they are able to sell more products and perhaps at higher prices. By being informed, they are more able to cater to consumers' desires. Consumers gain by having their desires openly expressed and described, because in this way the products they want are more likely to be produced and made available in the market.

Consumer behaviour towards food is characterized by changing preference. This is especially applies to poultry meat, in other to get an insight to poultry meat consumption behaviour factors such as quality, price, availability and income among others.(Iron and Agada, 2013).

According to Yilmaz et al, There are numerous factors affecting the amount of poultry consumption, which has an important place in human nutrition. Regional development diferences, consumer income level, socio economic and demographic factors, seasons, food safety and quality, personal tastes and habits, product price, and opinions regarding human health are generally thought to be the major factors that have an effect on the demand for poultry meat The number of scientific studies researching the consumption structure, including consumption level of poultry meat type, consumption habits, factors affecting the consumption of poultry meat, and consumer preferences on the basis of regions and cities is not sufficient.

It has been observed by Adejobi et al (2009) that increase population growths accompany by urbanization and increasing affluence is likely to increase the demand for high quality animal protein. He identified poultry meat as a nutritious alternative to other meat consumption and its sustainability as an additional income source to farmers. The poultry industry has been lagging behind the other meat sub-sector and the gap between production and consumption has been growing wider.

In view of this, there is a need for a research that will study preference and consumption of poultry meat type so that farmers can divert their resources to poultry birds that will earn them more income and improve their livelihood.

The broad objective of this study is to examine consumption and consumer preference for poultry meat types in Ibadan metropolis. The specific objectives are:

- To describe socio-economic characteristics of the poultry meat consumers in the study area.
- To access the availability of poultry meat types consumed in the area.
- To determine consumers preference for the poultry meat type.
- To examine the factors influencing consumer preference for poultry meat type in the study area.

3. Methodology.

3.1 Study Area.

The study was carried out in Ibadan the Oyo state capital. Ibadan is made up of eleven local government, it is located approximately on longitude 30^0S, 54^0E of the Greenwich meridian and latitude 70^0W, 23^0N of the equator at a distance of about 154km North East of Lagos. Ibadan has a population 2,550,593 people (National Population Census, 2006) where majority are traders, Ibadan had been the centre of administration of the old Western Region, Nigeria since the days of British colonial rule, and parts of the city ancient protective walls still stand till today.

The principal inhabitants of the city were the Yoruba people, with the strategies location of the railway line collecting Lagos to Kano. The study was carry out in three Local Governments which are Ibadan South West Local Government, Ibadan North Local Government and Ido Local Government.

3.2 Sampling Technique.

Multi stage sampling technique was employed in the study. There is purposive selection of three local governments out the eleven local government in Ibadan metropolis. They are Ibadan South West Local Government, Ibadan North Local Government and Ido Local Government. Fifty respondents were administered in each Local Government to give a total of 150 respondents which made up the sample size of the study.

3.3 Data Collection.

The data for this study were collected by the use of a structured questionnaire which was administered to the consumers of poultry meat.Data collected are socio-economic characteristics of the respondents, consumption rate of poultry meat type , availability and preference for poultry meat type, factors influencing consumption and preference of poultry meat type, among others. Though the study collected data for 10 poultry meat types which are chicken (layers, cockerel and broiler) goose,duck,quail,ostrich,turkey,pigeon and gouse but only chicken meat types and turkey data were found analyzable.This is due to no consumption and less consumption of other poultry meat types in the study area. Therefore the study is limited to broilers,layers, cockerel and turkey.

3.4 Data Analysis.

Data was analyzed using descriptive statistics and multinomial logistic regression. The model specification for the study is

$Log\ Y = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5$-- ------- $+B_{14} X_{14} + e_t$.
Y=(consumer preference) where Y= 0 (Broiler) ,Y=1 (Turkey),Y=2 (Cockerel),Y=3 (Layers) .
Y = Consumer preference ,X_1 = Age of the respondents ,X_2 = Income ,X_3 = Price,X_4 = Health status ,X_5 = Religious belief, X_6 = Satisfaction ,X_7 = Appearance,X_8 = Odour,X_9 = Educational level , X_{10} = Nutritional quality , X_{11} = Gender , X_{12} = Household size , X_{13} = Taste,
X_{14} – Substitute, e_t=error term.

4.Results and Discussion.

Table 1 shows the socio economic characteristics of respondents,52.7% of the respondents were male while 47.3% of the respondents were female.20% of the respondents have age less than 20years,36.7% falls between 21-30years,24.0% falls between 31-40years,12.7% age falls between 41-50years, while 6.7% of the respondent falls between 51-60 years.44.7% of the respondent were single,4.0% were Divorce,49.3% were Married while 2.0 were Widow/Widower.5.3% 0f the respondent have no formal Education,10.7% have Adult Education,6.0% have primary Education,23.7% have Secondary Education while 55.3% have Tertiary Education. 31.3% were Muslim, 62.7% were Christian while 6% were Traditionalist.27.3% of the respondent were Civil Servant, 20.3% were Traders, 11.3% were Farmers, 12% were Artisans While 28.7% specify other jobs like hotelliers,business,unemployed among others.81.3% of respondents have household size between 1–5, 18% have 6 –10 household size while 7% have household size of 11–15.Majority of the respondents have monthly income of 60001-80000 (27.3%) with the least groups having 20001-40000 and greater than 120,000 monthly income (2.7%).

Table 2 Shows the Availability of Poultry meat types and Inclusion of poultry meat in diet and how often they consume it .The result from this study shows that 3.3% 0f the respondents do not have poultry meat available in their area while 96.7% have poultry meat available to them.

12% of the respondent consume poultry meat every day,17.3% consume it weekly,22.0% consume it fortnightly, 2.7%consume it thrice in a week while15.3% and 30.7% consume it fortnightly and monthly respectively.

Table 3 shows the availability ranking for the poultry meat types, 1.3% of the respondents do not have broiler available; broiler is scarce 14%. At -times broiler is available 30.6%, and it is always available 54 % totaling 98.7% availability of broiler.

1.3% of the respondents do not have cockerel available in their area, cockerel is scarce at 14% times cockerel is available 30.7%, while it is always available 54% totaling 98.7% availability of cockerel.3.3% of the respondents do not have Layers, Layers is scarce 9.3%, at- times Layers is available at 48%, while it is always available 41.3% totaling 96.7% availability of layers.

3.3% of the respondent does not have turkey available. Turkey is scarce at 25.3%, At- times it available 24% and always available 47.3% totaling 96.7% availability of turkey.

Table 4 shows the preference ranking and the score for preference5.3% of the respondent did not prefer Broiler,11.3% of the respondent preferred Broiler,11.3% preferred less,34.7% moderately preferred, while 37.3 of the respondent highly preferredit. 6.7% of the respondent did not preferred cockerel, 6.7% preferred it 16.3% of the respondent preferred less,48% moderately preferred, while 23.3% of the respondent highly preferred cockerel. 10.0% of the respondent did not preferred layers, 10% preferred it,30% of the respondent preferred it less, 24.7% moderately preferred, while 25.3% of the respondent highly preferred it. 6.7% of the respondent did not preferred Turkey, 17.3% preferred it, 8% preferred less, 22.7% of the respondent moderately preferred it while 45.3% of the respondent highly preferred. The score for preference shows that

60 respondents (40%) prefer Broiler, 18 respondents (12%) prefer Cockerel, 22 respondents (14.7%) prefer Layers, 50 respondents (33.3%) prefer Turkey.This concludes that broiler is the most preffered poultry meat followed by turkey, layers and cockerel is the least preferred. Age, taste, appearance, education and sex were found to have significant relationship with consumer preference for poultry meat type at 5%. Substitute like beef, pork and other meat types also have significant relationship with consumer preference at 10% while other factors such as price, income, health status, religious belief, satisfaction derived , odour, nutritional quality and household size were not significant factors influencing preference.

5. Conclusion and Recommendation.

The study concludes that broiler is the poultry meat type that is most preferred and consumed by consumers and cockerel is the least preferred. Age, taste, appearance, education, Sex and availability of substitutes are significant factors influencing preference. The study therefore recommend that poultry farmers should divert more resources to the production of broilers and turkey so that they can meet consumer demand and increase their income.

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TABLE 1: SOCIO ECONOMIC CHARACTERISTICS OF THE RESPONDENTS

CHARACTERISTICS	FREQUENCY	PERCENT	CUMULATIVE %
SEX			
Male	79	52.7	52.7
Female	71	47.3	100.0
AGE			
Less than 20	30	20.0	20.0
21-30	55	36.7	56.7
31-40	36	24.0	80.7
41-50	19	12.7	93.3
51-60	10	6.7	100.0
MARITAL STATUS			
Single	67	44.7	44.7
Divorce	6	4.0	48.7
Married	74	49.3	98.0
Widower/Widow	3	2.0	100.0
EDUCATIONAL LEVEL			
No Formal Education	8	5.3	5.3
Adult Education	16	10.7	16.0
Primary Education	9	6.0	22.0
Secondary Education	34	22.7	44.0
Tertiary Education	83	55.3	100.0
RELIGION			
Islam	47	31.3	31.3
Christian	94	62.7	94.0
Traditionalist	9	6.0	100.0
OCCUPATION			
Civil Servant	41	27.3	27.3
Trading	31	20.7	48.0
Farming	17	11.3	59.3
Artisan	18	12.0	71.3
Others	43	28.7	100.0
HOUSEHOLD SIZE			
1-5	122	81.3	81.3
6-10	27	18.0	99.3
11-15	1	7	100.0
MONTHLY INCOME			
<20000	40	26.7	26.7
20001-40000	4	2.7	29.4
40001-60000	35	23.3	52.7
60001-80000	41	27.3	80.0
80001-100000	20	13.3	93.3
100001-120000	6	4.0	97.3
>120000	4	2.7	100.0

Source: Field Survey, 2014

TABLE 2: AVAILABILITY AND CONSUMPTION OF POULTRY MEAT TYPES

	FREQUENCY	PERCEN
Yes	150	100.0
INCLUSION OF POULTRY MEAT IN DIET		
Not at all	12	8.0
At Times	62	41.3
Yes	76	50.7
IF YES, HOW OFTEN DO YOU CONSUME POULTRY MEAT		
Everyday	18	12.0
Weekly	26	17.3
Twice in a week	33	22.0
Thrice in a week	4	2.7
Fortnightly	23	15.3
Monthly	46	30.7

Source: Field Survey, 2014

TABLE 3: AVAILABILITY RANKING OF POULTRY MEAT TYPES

Poultry meat type	Not at all	Scarce	At times	Always
Broiler	2(1.3)	21(14)	46(30.7)	81(54)
Cockerel	2(1.3)	14(9.3)	72(48)	62(41.3)
Layers	5(3.3)	22(14.7)	61(40.7)	62(41.3)
Turkey	5(3.3)	38(25.3)	36(24)	71(47.3)

Source: Field Survey, 2014

TABLE 4:PREFERENCE FOR POULTRY MEAT TYPE

	Not preferred	Preferred	Preferred Less	Moderately Preferred	Highly Preferred
Broiler	8(5.3)	17(11.3)	17(11.3)	52(34.7)	56(37.3)
Cockerel	10(6.7)	10(6.7)	23(15.3)	72(48)	35(23.3)
Layers	15(10)	15(10)	45(30)	37(24.7)	38(25.3)
Turkey	10(6.7)	26(17.3)	12(8)	34(22.7)	68(45.3)

SCORE FOR THE PREFERENCE

	FREQUENCY	PERCENT
Broiler	60	40.0
Cockerel	18	12.0
Layers	22	14.7
Turkey	50	33.3

Source: Field Survey, 2014

TABLE 5: THE RESULT OF MULTINOMIAL LOGIT SHOWING EFFECT OF PREFERENCE FOR POULTRY MEAT TYPES ON FACTORS INFLUENCING PREFERENCE FOR POULTRY MEAT TYPES

Factors	**Model fitting criteria**	**Chi-square**	**Sig**
Price	159.400	4.410	.882
Income	164.871	9.882	.360
Age	205.252	50.263	.000*
Health status	166.307	11.318	.255
Substitute	171.501	16.512	.057**
Religious belief	163.799	8.810	.455
Taste	214.962	59.972	.000*
Satisfaction	161.763	6.774	.661
Appearance	208.806	53.816	.000*
Education level	172.760	17.771	.038*
Odour	156.492	1.502	.997
Nutritional quality	163.632	8.643	.471
Sex	211.783	56793	.000*
Household size	166.669	11.680	.232

* - Significant at 5% ,** - Significant at 10%
Source: Field Survey, 2014.

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