

The perception and preference of consumers for local poultry meat in the Kumasi metropolis of Ghana

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ABSTRACT

The study examined the preference for and perception of consumers concerning the locally produced poultry meat in the Kumasi metropolis in the Ashanti Region of Ghana. Fifty consumers were randomly selected. The results demonstrated that most consumers preferred the local poultry meat to the imported meat. The logit estimates indicated that factors such as age, gender, cold store, cut parts, and healthiness significantly influence consumers' preference for the locally produced poultry meat. Age, gender and healthiness positively influence consumer's preference, while cold store and cut parts negatively associated with consumer preference for local poultry meat. On the perception, 68 per cent of the consumers strongly agreed that local poultry meat is tough, while 58 per cent alleged that imported poultry meat is rather tough. In terms of affordability, 46 per cent of the consumers disagreed that local poultry meat is affordable, while 52 per cent strongly objected to the idea that imported poultry meat is relatively cheaper. In terms of availability, 54 per cent of the consumers admitted that local poultry meat is not readily available, while 58 per cent indicated that imported poultry meat is readily available and can be obtained at anytime. Sixty per cent of the respondents were of the opinion that local poultry meat taste better, while 46 per cent of the respondents indicated that imported poultry meat do not taste better. This was probably due to long period of refrigeration, which reduced its freshness and taste and made it less healthy for consumption. It is suggested that the government should subsidize the cost of inputs for the local poultry industry, since the results indicated that high cost was the major factor that influenced consumers' purchasing decision.

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Introduction

Despite several health crises, meat consumption has remained stable in recent years (Aning, 2006). Poultry proved to be most attractive (Aning, 2006) in the 1990s as compared to other meat and meat products benefit, including beef. In 1995, it became the meat with the second highest consumption world-

wide, after pork and ahead of beef (Aboe *et al.*, 2003). The Ghanaian economy is based largely on agriculture, which accounts for 41 per cent of Gross National Product (GNP) (MoFA/DFID, 2002). About 60 per cent of the labour force is engaged in this sector, mostly operating in crop or mixed crop farming and livestock /poultry farming.

According to a survey (MoFA/DFID, 2002), the livestock/poultry component serves as a 'safety net', providing an important source of ready cash for emergency needs. Thus, even though livestock and poultry contributes only seven per cent to the agricultural GNP (FASDEP, 2002), their role in rural livelihoods and food security is enormous.

The perception of consumers concerning poultry meat has great impact on their purchasing decision to buy or not to buy the product. Patronage of locally produced poultry meat is very low due to the preference of the consumers (Aboe *et al.*, 2003). Many people do patronise the imported poultry meat throughout the year as compared to the locally produced poultry meat, which has high patronage during Christian festivities (GPFA, 2000).

While consumption of red meat has not changed during the last 5 years, consumption of frozen poultry meat has almost doubled. Ameleke *et al.* (2003) reported that consumption patterns of households in urban areas in Ghana are evaluated towards imported frozen poultry. Reasons stated for this trend are that it is cheaper than locally produced poultry, and is more convenient because it is pre-cut.

A couple of large-scale domestic producers have attempted to sell local birds in cut parts but this has not been sustained and imported poultry products tend to be cheaper by 30 – 40 per cent than the locally produced chicken (Levin & Ashitey, 2008). The issues raised in this paper are: What are the perceptions of the consumers on locally produced poultry meat? What factors influence consumers' preference for local poultry meat? The study, therefore, focuses on assessing

the perception as well as the preference of consumers for locally produced poultry meat in the Kumasi metropolis of Ghana.

Materials and methods

Data type, source and sampling

The population comprised all the consumers of poultry products in the Kumasi metropolis of Ashanti Region of Ghana. A sample size of 50 consumers of poultry meat was considered for the study. Kumasi metropolis was selected for the study due to the people's preference for poultry meat. The metropolis is categorised into three income groups, namely high income zone, middle income zone and low income zone. In order to get a fair representative of the opinions of the various income groups, one suburb from each income zone was randomly selected, namely Adum, Bantama and Oforikrom, respectively. The 50 consumers comprised nine, 16 and 24 from Adum, Bantama and Oforikrom, respectively. The sample size and the suburbs were selected with the help of simple random sampling technique.

Primary data were collected with questionnaires. The questionnaires were categorised into two sections, A and B. Section (A) solicited information on the socioeconomic characteristics of the respondents, and Section (B) captured information on perception of locally produced poultry meat and imported chicken.

Descriptive statistics were employed for summarising the socioeconomic attributes of respondents, and frequency tables were drawn. Statistical Package for Social Sciences (SPSS, 2011) was used to analyse all data collected. Frequency distribution tables were used to examine the perception of consumers on locally produced poultry meat.

The maximum likelihood estimation approach was used to estimate the parameters in the logit model.

Empirical model

It is assumed that for a consumer to make decision on whether or not to buy the locally produced chicken, he examines the benefit obtained from the preference [P_L] and benefit derived from the imported chicken meat [P_I]. A consumer is likely to prefer the locally produced chicken, if the utility derived from its preference [P_L] is greater than the expected utility from imported chicken meat [P_I], that is, if [P_L] > [P_I].

The specifications of the logit model used in the analysis of data are provided below.

$$P_L = \beta_0 + \beta_1 AGE + \beta_2 GE + \beta_3 MS + \beta_4 EL + \beta_5 FS + \beta_6 FC + \beta_7 F + \beta_8 CS + \beta_9 M + \beta_{10} WM + \beta_{11} CP + \beta_{12} A_p + \beta_{13} A + \beta_{14} T + \beta_{15} H + \beta_{16} I + \mu$$

where;

- P_L = Preference for locally produced chicken (1 = preference and 0 = otherwise)
- AGE = Age of consumer (years)
- GE = Gender of consumer (1 = male and 0 = female)
- MS = Marital status (1 = single and 0 = others)
- EL = Educational level of consumer (Number of years of schooling)
- FS = Family size (Number of people in the family)
- FC = Frequency of poultry meat consumption
- F = Farm as a source of poultry meat (1 = farm and 0 = otherwise)

- CS = Cold store as a source of poultry meat (1 = cold store and 0 = otherwise)
- M = Market as a source of poultry meat (1 = market and 0 = otherwise)
- WM = Whole chicken meat (1 = purchased whole meat and 0 = otherwise)
- CP = Cut parts (1 = purchased chicken parts and 0 = otherwise)
- A_p = Affordability of locally produced chicken (1 = yes and 0 = no)
- A = Availability of locally produced meat (1 = yes and 0 = no)
- T = Taste (1 = yes and 0 = no)
- H = Healthy (1 = yes and 0 = no)
- I = Income (Ghana Cedis)

Note: The variables A_p , A, T, and H are used as proxy for perception of consumers concerning the locally produced poultry meat. $B_0, B_1, B_2 \dots B_{15}$ = Coefficients of the variables. μ = Error term capturing all factors unknown to the researcher. A priori expectation was that $B_1, B_2, B_3, B_4, B_7, B_{10}, B_{12}, B_{13}, B_{14}, B_{15}, B_{16}$ are greater than zero (that is, they are positive), while $B_5, B_6, B_8, B_9, B_{11}$ are less than zero (that is, they are negative).

Results and discussion

Perception of consumers concerning local and imported chicken

The results of the study demonstrated that 64 per cent of the respondents preferred the locally produced poultry meat while 36 per cent preferred the imported chicken meat. Majority preferred the locally produced poultry meat due to their perception about imported poultry meat that they are not

healthy (Table 1). Even though most consumers prefer the locally produced poultry meat, many of them purchased the frozen ones due to the following reasons; tenderness, availability and affordability (Table 4).

Factors influencing the preference for locally produced poultry meat

The results of the logit estimates on the preference for locally produced poultry meat by consumers are shown in Table 2. The maximum likelihood estimates gave a pseudo R^2 of 0.4410 which implies that model predicts about 44.10 percent of the sample. Amongst the 16 variables investigated in the logit model, five were statistically significant. These include age, gender,

TABLE 1
Preference for Locally Produced Poultry Meat

<i>Preference for locally produced poultry meat</i>	<i>Frequency</i>	<i>Per cent (%)</i>
Yes	32	64
No	18	36
Total	50	100

cold store, cut parts and healthiness. Also, important to note is that all the variables had the expected signs except income, marital status, farm, family size, market, whole meat, affordability and availability.

According to Henneberry & Charlet (1992), changes in consumer preference have occurred largely due to demographic

TABLE 2
Logit Estimates of the Preference for Locally Produced Poultry Meat

<i>Variable</i>	<i>Coefficient</i>	<i>Odd ratio</i>	<i>Z-value</i>	<i>p-value</i>
Constant	-2.3846		-0.89	0.372
Age	0.0906**	0.9133	2.12	0.034
Gender	1.8380*	6.2841	1.77	0.076
Income	-0.7523	0.4712	-1.00	0.319
Marital status	-0.4797	0.6189	-0.26	0.791
Educational level	0.2567	1.2927	1.55	0.121
Family size	0.5300	1.6989	1.47	0.141
Frequency of poultry meat consumption	0.6781	1.9700	1.42	0.155
Farm	-0.2430	0.7842	-0.43	0.670
Cold store	-1.7041***	0.1819	-2.92	0.003
Markets	0.4303	1.5377	0.46	0.647
Whole meat	-2.1314	0.1187	-1.36	0.174
Cut parts	-3.6549**	0.0259	-2.18	0.029
Affordability	-2.005	0.1346	-1.28	0.200
Availability	-0.3216	0.7250	-0.27	0.786
Taste	2.4036	11.06251	1.59	0.113
Healthiness	3.0066*	35.1342	1.73	0.084
Observation	50			
Pseudo R^2	0.4410			
χ^2 statistic	25.18			
Prob > χ^2	0.0668			
Log likelihood	-16.6772			

characteristics. Sociodemographic factors are as important as the conventional economic variables in explaining observed difference in the household's food consumption patterns (Akabay, Boz & Chern, 2007).

Age was significant at 5 per cent level and positively related to the preference of local poultry meat. The odd ratio was 0.9133, which implies that old consumers are 0.9133 times more likely to prefer local poultry meat to imported chicken. As consumers advance in age, they become highly conscious about their health. Therefore, they would want to consume food items that will provide them with good health. The findings of the study agree with the research by Nnamdi (2010), who indicated that age is positively associated with the preference for safe chicken consumption in Imo State of Nigeria. Age as a determinant of consumer's preference is indicated in a study by Ortega, Wang & Wu (2009) where it was observed that due to health consciousness, lack of understanding, and unfavourable news about foreign products, older people are less aggressive to prefer foreign products. Moreover, it was observed that gender was positively related to preference of local poultry meat and significant at 10 per cent level. The odd ratio

of 6.2841 indicates that male consumers are 6.2841 times more probably to prefer local poultry meat than imported chicken.

Sources of poultry meat for consumers were fitted in the model to observe their influence on consumer's preference for local poultry meat. It was found that cold store variable was significant at 1 per cent level; negatively influence preference for local poultry meat with odd ratio of 0.1819. This suggests that consumers, who purchase poultry meat from cold store, are 0.1819 times less likely to prefer local poultry meat. Other sources of poultry meat for consumers, like farms, were negatively related to preference for local poultry meat, while markets were positively associated with preference. However, they were insignificant.

The dressed form of poultry meat (whether whole chicken or chicken parts) was also fitted in the model. Chicken parts as a variable was significant at 5 per cent level and negatively related to the preference for local poultry meat. The odd ratio of 0.0259 indicates that as a consumer continues to buy chicken parts, the probability to prefer local poultry meat declines by 0.0259 times. This is because locally produced chicken are normally sold undressed and the locally

TABLE 3
Perception of Consumers Concerning Locally Produced Poultry Meat

<i>Statement</i>	<i>Strongly agree</i>	<i>Agree</i>	<i>Strongly disagree</i>	<i>Disagree</i>
Tough	34 (68%)	11(22%)	2 (4%)	3(6%)
Affordability	8 (16%)	10(20%)	9 (18%)	23(46%)
Availability	10 (20%)	4(8%)	27(54%)	9(18%)
Taste better	30 (60%)	10(20%)	6(12%)	4(8%)
Properly packaged	2 (4%)	1 (2%)	35 (70%)	12(24%)
Healthy	23 (46%)	15(30%)	5(10%)	7(14%)
Ease of preparation	5 (10%)	9 (18%)	21 (42%)	15 (30%)

produced chicken parts are difficult to come by. Again, whole chicken as a variable was not significant, but was negatively related to preference for locally produced poultry meat.

Perception on affordability and availability of local poultry meat were not significant, but were positively associated with preference for local poultry meat.

Consumer's perception on healthiness of locally produced poultry meat was significant at 10 per cent. It was positively associated with preference for locally produced poultry meat. It had odd ratio of 35.1342. As consumers conceive that locally produced poultry meat is healthier, they are 35.1342 times more likely to prefer it. This demonstrates that consumers are more alert of their wellbeing.

The perception of consumers concerning local poultry meat affects their purchasing decision. Most local poultry meats are tough because they are grown beyond the normal termination period. The issue of poultry meat being tender or tough depends on what the respondent is using the product for, either for stew or soup. About 46 per cent of the consumers also disagree that local poultry meat is affordable. The local poultry meat is relatively expensive probably due to high production cost (high cost of inputs used in production). Twenty per cent agree that local poultry meat is affordable, 16 per cent also strongly perceive that local poultry meat is affordable, while about 18 per cent strongly disagree with the perception that local poultry meat is affordable.

Out of 50 respondents, 72 per cent disagree that local poultry meat is available. Local poultry meat is mostly available at the various farms and the market during Chris-

tian festivities. Twenty per cent did strongly agree with the perception of local poultry meat being available and eight per cent also agree to this perception.

Sixty per cent of the respondents interviewed strongly perceive that local poultry meat taste better, 20 per cent agree to this perception. Twelve per cent of the respondents strongly disagree to the perception statement and eight per cent also disagree to the perception that local poultry meat taste better. Even though most people perceive that local poultry is relatively expensive, they prefer it due to its better taste (it is fresh and has not been refrigerated for long period).

Among 50 respondents contacted in the study, 70 per cent strongly disagree that local poultry meat is properly packaged, 12 per cent disagree to the perception statement. Only four per cent strongly agree that local poultry meat is properly packaged while two per cent agree.

On perception related to health, majority (46 per cent) strongly agree that local poultry meat is healthy and 30 per cent agree with this perception. Fresh poultry meat as known should be used within 14 – 21 days after slaughter, and generally should not be kept in the home refrigerator for more than 3 days. Many believe that the local poultry meat is fresh and is not kept for long period and, therefore, consumers believe that it is healthier.

The results indicated that 72 per cent disagree that local poultry meat is easy to prepare while 28 per cent agree that it is easy to prepare.

Table 4 presents a summary statistics on the perception of a consumer concerning the imported chicken. This enables the re-

TABLE 4
Perception of Consumers Concerning Imported Chicken

<i>Statement</i>	<i>Strongly agree</i>	<i>Agree</i>	<i>Strongly disagree</i>	<i>Disagree</i>
Tough	7 (14%)	6(12%)	8(16%)	29(58%)
Affordability	26 (52%)	15(30%)	4(8%)	5(10%)
Availability	29 (58%)	14(28%)	4(8%)	3(6%)
Taste better	13 (26%)	8(16%)	6(12%)	23(46%)
Properly packaged	20 (40%)	14 (28%)	7(14%)	9 (18%)
Healthy	14(28%)	8(16%)	18(36%)	10(20%)
Ease of preparation	19(38%)	22(44%)	4(8%)	5(10%)

search to decipher how consumers perceive both local and imported chicken. Majority (74 per cent) of the respondents indicated that they disagree with the perception that imported chicken is tough. On the contrary, 26 per cent agree that imported chicken is tough.

Eighty-two per cent believe that imported chicken is relatively cheaper. Conversely, 18 per cent do not agree that imported chicken is affordable.

Contrary to the perception of consumers on local chicken, most respondents (58 per cent) strongly agree that imported chicken is available and can be obtained anytime and everywhere. Some respondents (28 per cent) also agree that imported chicken is available in most cold stores and market centres, while others (8 per cent) strongly disagree with the perception that imported chicken is available. Few (6 per cent) disagree to the perception. Consumers (46 per cent) strongly disagree to the perception that imported chicken tastes better. Sixteen per cent also disagree that imported chicken tastes better. They believe the quality in terms of the taste has declined drastically due to long period of refrigeration. About 26 per cent strongly opined that imported chicken tastes better

and 13 per cent also agree that imported chicken tastes better.

Most respondents (40 per cent) strongly perceived that the imported chicken is properly packaged, and 28 per cent also agree that imported poultry meat is properly kept in a package. Others (18 per cent) strongly disagree that imported chicken is properly packaged, while 14 per cent disagree that imported chicken is packaged properly.

Thirty-six per cent of consumers strongly disagree that imported chicken is healthy for consumption, and 20 per cent also perceived that imported chicken is not healthy. On the other hand, 28 per cent strongly perceive that imported chicken is healthy, and 16 per cent also agree that imported chicken is healthy and, therefore, safe for consumption.

Thirty-eight per cent of consumers perceive that imported chicken is easy to prepare, and 44 per cent also strongly agree that imported chicken is easily prepared when cooking. Conversely, 10 per cent disagree that imported chicken can easily be prepared, and 8 per cent also strongly disagree that imported chicken is easy to prepare.

Conclusion and recommendations

The results indicated that most consumers

preferred the local poultry meat. The logit estimates indicated that factors such as age, gender, cold store, chicken parts and healthiness significantly influence consumers' preference for the locally produced poultry meat. Age, gender and healthiness positively influence consumers' preference. However, cold store and chicken parts negatively associated with consumer preference for local poultry meat. The results also demonstrated that majority of consumers purchased poultry meat from cold stores. The study revealed that most consumers disagreed with the perception on local poultry meat except the taste where consumers agreed. Conversely, consumers agreed with most perception statements on imported poultry meat except the taste and health implications.

Based on the findings, it is suggested that the government should subsidise the cost of inputs for poultry production. The results indicated that most consumers perceived that the local poultry meat is expensive. This, therefore, influences their purchasing decision. Again, the results demonstrated that consumers perceived that the local poultry meat is not available. Hence, more outlets must be set up by the poultry farmers to bring their products closer and readily available to consumers.

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