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**The “Made in USA poultry label” and consumer choice in Ghana**

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## **Abstract**

Market survey data from Ghana was used to gain understanding of consumers' attitudes, preferences for foreign food products, and the role product country of origin plays in the demand for poultry. Intention to purchase poultry from the US was anchored on product packaging, quality, expiry date and country of origin.

## **INTRODUCTION**

### **Background and study objective**

Globalization has widened the choice set of populations in economies with emerging markets who hitherto depended solely on locally produced commodities. Rising incomes, increased urbanization, and food production deficits have spurred ever increasing imports of food. In addition globalization has hastened the blending and or adoption of western tastes and preferences for western style foods. While these trends offer increased opportunities for international food marketers to supply the increased demand by these emerging markets, they negatively impact the emerging markets in regard to the burgeoning food import bills, as well as the survival of the affected local food industries.

In Ghana, local poultry farmers supply around 10 percent of poultry demand in the country. The poultry meat import bill, especially from the US keeps soaring, bringing into question consumer attitudes towards local and imported products and the effect of country of origin (COO) on this demand. Country of origin is considered as extrinsic cues that can assist consumers inferring product quality and forming quality expectations (Grunert, 2005 and Bernués *et al*, 2003). These cues also influence a whole range of attitudes and behaviors related to food purchasing, meal preparation, satisfaction and future purchase decisions. Owing to their potential role with respect to product identification, COO can facilitate repeat purchases when satisfaction has occurred. Studies that have established that country of origin information is important to consumers abound. However, studies

originating from emerging economies in Africa are scanty. Shenge (2010) argued that the African population has noticeably not featured much in country-of-origin research in spite of the growing size and complexity of the African consumer market. Perhaps the COO concept is increasingly becoming blurred as products are designed, manufactured, and branded in more than one place. For instance, when a product is labeled as US, England or Holland, in nearly all cases the country of origin is China or India – only the brand is US, England or Holland (Opoku and Akorli, 2009). Therefore, studies could be decomposed in country of design (COD) and country of manufacture (COM).

There are few studies on COO effects and Ghana. The work of Quartey and Abor (2011) discussed the preference of Ghanaians of imported textiles to locally manufactured ones. Fianu and Harisson-Arthur (2007) also discussed textile labels. The study of Opoku and Akorli (2009) on the preference gap in rice and clothing and textiles, concluded that (a) country of origin is more important than price and other product attributes and at least as important as brand name, in the Ghanaian consumer choice, (b) the Ghanaian consumer holds the 'Made in Ghana' label in low regard relative to foreign labels and (c) superior quality and consumer taste are the two most important reasons for the Ghanaian consumer preference for foreign products. That consumers hold domestic products in low regard may be product specific. Ahmed *et al* (2004) asserted that a country's positive image in some product categories does not necessarily carry over to other product categories. Differences in economic development are an important factor underlying the country of origin effect (Verlegh and Steenkamp, 1999). Okechuku and Onyemah (1999) study of Nigeria consumer attitude towards foreign and domestic products found that the country-of-manufacture is significantly more important than price and other product attributes in consumer preference. In South Africa, Pentz (2011) found that nationalism and gender were predictors of consumer ethnocentrism. The basic premise of the

concept of consumer ethnocentrism is that the attitudes and purchase intentions of consumers can be influenced by what could be called nationalistic emotions.

In Europe, studies have examined how the designation of origin may influence consumers and industrial buyers in their product evaluations, and how a nation's general image may influence its product image and vice versa. Knight *et al.* (2007) found in five European countries that "channel member perceptions of product-country image related more to specific issues of confidence and trust in integrity of production, certification and regulatory systems than to country image stereotypes". In Asia, the work of Ahmed *et al.* (2002) in Singapore on cruise lines showed that a positive country of origin image compensated for a weak brand. They suggested that marketing effort should emphasize association with a positive country of origin perception. Kaynyak *et al.* (2000) also found that Bangladeshi consumers overwhelmingly preferred western made products, though there were differences in their perceptions across product classes as well as degree of suitability of sourcing countries. In America, Kotler and Getner (2002) examined how widely held country images affect attitudes towards a country's products and services and ability to attract investment, businesses and tourists. The work of Shimp and Sharma (1987) and Sharma *et al.*(1995), found that ethnocentrism influenced the product perceptions of US and Korean consumers.

### **Objectives of the study**

The objective of this study is to gain understanding of Ghanaian consumers' attitudes and preferences for foreign food products and the role product country of origin plays in consumer demand for poultry. The foreign fresh and processed food products are mainly crop, livestock or fisheries based. The crop based commodities include vegetable oil, wheat, wheat flour and spaghetti, tomato paste and dressings and other grain powders and cakes. The livestock products include poultry meat (whole

and cuts), sausage and gizzard, turkey cuts, beef, beef sausage, cow leg and pig feet. Fish products include variety of fish and sea foods. This study is focused on poultry chicken meat cuts, gizzard and sausage.

The poultry industry represents one way of accomplishing several national goals under a single banner. Employment, poverty alleviation and improved nutrition are all potential benefits from continued support and encouragement. If good nutrition will be obtained from an agro-product the process of production and the activities in distribution cannot be overlooked. There are standards set for the production and distribution of meat products under the global GAP protocols. The US and other developed countries have developed specific ones as well. Are Ghanaian consumers making choices based on country of origin, ethnocentrism or standards? Is the poultry industry in Ghana providing standards required by the Ghanaian consumer? An understanding of the role of COO images for imported products as against domestic ones would aid in the formulation of better marketing plans, strategies and policies by companies of both domestic and international origin.

### **The status of poultry production and consumption in Ghana**

Ghana has a population of approximately 24 million people who need a daily protein requirement of 55 grams according to the World Health Organization standard. Growing populations and purchasing power are spurring demand for meat products in West Africa's urban areas. In Ghana, Burkina Faso, Senegal, Nigeria, Côte d'Ivoire and Benin, demand for chicken and poultry meat increases at holiday times, particularly Christmas, Easter, Tamkharit (Muslim New Year) and Ramadan. Live chickens are also commonly given as gifts in Ghana, Burkina Faso, Senegal, Nigeria, and Côte d'Ivoire. Two decades ago, the major source of protein for Ghanaians was fish; it contributed 60% of animal protein (FCWC, 2011). In recent times, poultry meat use in many

households (mainly urban and peri-urban) has increased due to rapid rise in imported poultry products which come as cut portions facilitating quick and easy use by consumers. Imports are estimated to be 30 to 40 per cent cheaper than locally produced chicken. By 2010, commercial domestic poultry production was only able to meet 10 per cent of total demand. Most poultry producers shifted from producing broilers for meat to the production of eggs. Prospects for increased poultry consumption are highly attainable, and so all efforts are being made by government and all stakeholders to remove the key constraints. The key constraint is a very high cost of production (feed, drugs and high energy prices). Mortality rates are very high due to a combination of improper feeding practices, ignorance of management needs and poor distribution of vaccines. In today's competitive marketplace, production strategies are crucial to the success of poultry production and require such a professional approach to the business.

### ***The poultry marketing chain activities***

Poultry products in Ghana include live birds, whole dressed chicken, eggs, gizzard and sausage. The marketing channel for live broilers or spent layer birds is usually short in that 60 percent of consumers usually buy directly from poultry houses. The rest buy from retailers who sell on road sides or in open markets. A recent phenomenon of supermarket chains has added whole dressed, cuts and partially cooked chicken to the lines. The latter is patronized by a few upper class urban consumers. Cold stores in open markets prefer meat cuts that can be retailed in small volumes to a wide range of customers. Hence, they do not patronize the purchase of live chicken. They sell imported cut products from the USA, EU and Brazil. Pricing of local poultry products in the market is determined by demand and supply. In 2010, a kilogramme of locally slaughtered whole chicken was sold for GH¢12.00 ( about US\$8.00) in Accra. This is compared with a kilo of imported broiler

thighs which was sold for GH¢3.50 (US\$2.33), a difference of GH¢8.50 which can purchase additional 2.4 kilos. In general, imported poultry products tend to be cheaper by 30-40 percent than the locally produced chicken.

### ***Constraints in chicken processing***

Although the livestock industry grew by 5.1 percent in 2010, the poultry subsector declined by 12.81 percent (ISSER, 2011). There are several constraints that hinder the growth of the poultry industry in Ghana: First, Ghana lacks adequate broiler processing plants. The industry is dominated by small scale processors and there are no proper packaging units, quality assurance laboratories, cold storage/refrigeration centers and refrigerated trucks for effective distribution of processed meat. There are two poultry enterprises that have the facility for processing poultry into dressed whole birds but this has not been sustained. Secondly, the mere national recognition of poultry farming has not translated into adequate budgetary support. What pertains is support towards poverty reduction. For instance, in the 2012 national budget, 20,000 day-old-chicks was budgeted for 700 poultry farmers throughout the country. Before year 2000, the poultry industry was a vibrant agricultural sector; supplying about 95 percent of chicken meat and eggs in the country. This growth was due to the Government of Ghana's (GOG) initiative in the 1960s to promote commercial poultry production as the greatest potential for addressing the acute shortfall in the supply of animal protein. Thirdly, there are no clear cut networks among the poultry chain actors such as farmers, processors, financial institutions, feed and vaccines dealers and supermarkets. According to the Secretary of the Poultry Farmers Association, individuals make private arrangements to obtain whatever supplies they require. The Association does not have the capacity to source bulk on behalf of its members.

## **DATA AND METHOD OF ANALYSIS**

### **The assumptions and approach**

Response to imported products may be based on regular availability or ethnocentrism. Those consumers who are ethnocentric and will reject imported products regard the purchase of foreign products as “wrong”, as it might harm the domestic economy and result in job losses in industries that compete with imports. Yet not all domestic economies have the capacity to provide industries that will be protected to improve competition with imports. Hence, expression of ethnocentrism may not translate into action- no patronage of foreign products.

The economic system operated in Ghana is mixed – on the whole some sectors use some public management to distribute wealth, income and welfare and its levels of employment, inflation and environmental damage. However, the majority of the sectors use the market allocation system. Hence, products availability is determined by market demand and ability to pay determines allocation. Consumer perceptions of product country of origin, brand, taste, packaging, expiry date, meat quality and safety as well as some personal characteristics are likely to influence purchase decisions. Yet it is noted that purchase intentions do not only represent a tradeoff between consumer needs and product features, but also incorporate several “external” influences, of which budget constraints are the most important. Specifically, consumers may perceive a product to be of high quality, and like it very much, but they may simply not be able to afford it. Hence, the impact of country-related inferences should be smallest for purchase intentions. Consumer choice is based on multiple cues. It was therefore hypothesized that:

H1: Country of origin influences the choice of US poultry products positively. When one holds a high regard for a country due to knowledge of how country is well developed and has working

institutions, the countries product will be selected irrespective of the status of other cues. It was further suggested that more developed nations (USA, England, and Germany) enjoy a favorable (positive) product/brand evaluation with respect to country of origin, while lesser developed nations such as Bangladesh have negative product evaluation (Krishnakumar, 1986; Hong and Yi, 1992).

H2: Meat quality influences the choice of US poultry products positively. Quality is value placed on several factors including safety, nutrition and palatability. When a product is perceived to meet the basic quality standard, consumers will choose to buy irrespective of country of origin.

H3: Packaging influences the choice of US poultry products positively. Packaging ensures minimum or no adulteration of product. It allows for easy transportation or movement of products and displays labels that provide useful information. Perception of well packaged product will improve decision to purchase.

H4: Expiry date influences the choice of US poultry products positively. Display of expiry date places confidence and trust in product safety. Consumers who hold display of expiry date highly are likely to purchase US poultry meat.

H5: Household income influences the choice of US poultry products positively. The poor are cash constrained and families who earn below the poverty line are not likely to patronize poultry meat regularly. Hence the higher the income levels of consuming households the higher the likelihood of patronage.

H6: Knowledge of producer of a product can affect the demand for such product either positively or negatively depending on consumers' knowledge of the producer. United States is known for high quality production thus it is assumed that the variable "producer" will positively influence Ghana poultry products demand from US.

H7: A tasty product will surely elicit demand compared to non tasty product. US poultry been accorded with such properties as high quality standard, safety and nutritious will also be palatable. Thus, taste of US poultry will influence positively consumer demand for it.

H6: Ethnocentrism influences the choice of US poultry products negatively. Those who are ethnocentric and believe that patronage of imported products destroy domestic industries are less likely to buy US poultry products. In situations where locally produced alternatives are lacking such consumers might be constrained and so opt for imported products.

H8: Certain personal characteristics of consumers (say age and education) affect the choice of US poultry products. The aged are likely to have more experience and knowledge in the use of imported products. The educated have the added advantage of interpreting label information and being better exposed to a variety of products. Their choice is indeterminate. Personal characteristics may not be modeled if they correlate with any of the other cues, especially, expiry date and meat quality.

### **Survey design and implementation**

Many studies use the Blind Brand Experiment to obtain information on consumer attitudes towards product country of origin. This study only described different brands to consumers. The poultry products sold in cold stores are termed Tyson (from US), Brazil or Europe. A market survey was conducted to elicit responses from 500 respondents in Accra-Tema Metro area in July 2011. One questionnaire was rejected for incomplete responses. The respondents were selected through a convenience sampling procedure. Respondents were screened for prior poultry purchase experience and they were personally interviewed (face-to-face) at the market place. All respondents were persons responsible for meat purchasing in their household, which is reflected in the gender distribution (non-bias) within the sample. Relevant socio-demographic and behavioral characteristics

are presented in Table 1. The sample is statistically representative of the Ghana population and structure typical of developing countries which are characterized by a large proportion of the population under 64 years. The survey elicited information on general food attitudes and preferences, and specifically for poultry. The data were collected by using a five-point Likert rating scale questionnaire. Past studies indicated that Likert-type scales are more appropriate and reliable for studies of this nature than Thurstone scaling and the semantic differential scales. Numerical values were assigned from 1 (least favorable response) to 5 (most favorable response).

### **Method of data analysis**

There were two levels of analysis, the descriptive and logistic regression. The descriptive showed the differences in responses of consumers who were always likely to purchase US poultry label and those who were not always likely to purchase (expressed moderate to not at all). The demographic characteristics of respondents as well as importance attached to certain technical attributes of poultry were compared (Table 1). Consumers who always selected US poultry possessed personal characteristics that were not widely different from those who were indifferent or those who did not select the US label. The age distribution showed that both young (20-40 years) and old (greater than 40) choose the US poultry label. Consumers from all ethnic groups patronized US poultry products about equally. The choice of literates is not different from the few (6%) illiterates interviewed. The occupation of the different groups of respondents ranged from self-employed artisans (mechanics, dress makers, carpenters, masons and bakers) to wage earning professionals (accountants, teachers, bankers and administrators). The household composition of respondents showed skewness towards the young age group as expected. Older people leave home and start their own families. The income ranges showed that most poultry consumers are above the poverty line.

Respondents' opinion concerning preference for poultry meat from countries such as Ghana, China, EU, Brazil and Korea were presented in Table 2.

### **Logit Model**

The model using Always buy US poultry label (ABSPOL) as the dependent variable, is expressed as:

$$Prob (ABSPOL) = f(COO, MS, PA, ED, PD, TA, ETH)$$

Where

ABSPOL=Always buy US poultry label    yes=1; 0=otherwise.

COO=country of origin

MS = Meat safety packaging

PA = Packaging

ED =Expiration date

PD=Producer

TA=Taste

ETH= Ethnocentrism

Only 270 respondents who responded to all questions were selected for the modeling. Table 3 shows the variables, description and *a priori* expectations.

### **3. RESULTS AND DISCUSSION**

The results of the study showed that the "Made in USA poultry label" (likely plus very likely responses) was chosen by 56 percent of consumers sampled for the Ghana study (Figure 1). This shows that the US poultry label has adequate demand and a long term potential. However, choice of US label does not exclude choice of other labels. Indeed, more consumers (72% vrs 56%) expressed the opinion that they were likely or very likely to choose poultry products from Ghana (Table 3). Contrary to the general perception, Ghanaians do not hold the 'Made in Ghana' poultry label in low regard relative to foreign labels. This is in conformity with studies that have provided empirical evidence that consumers typically place a premium on locally produced foods (Loureiro and

Umberger, 2003; Umberger *et al.* 2002 and Muladno and Thiemi, 2009). It should be noted that there is the possibility that the local product and the foreign product are not the same in the consumer choice. The domestic chicken is invariably purchased as live.

Desire expressed for the EU and Brazil is not insignificant either (above 40%). However, poultry products from Asia (say China and Korea) appear to be not well-known yet some people expressed interest. Quite a number of consumers were not particular about considering purchase from any country. Response to the specific question of importance of country of origin label showed that about 41 percent of consumers think COOL is important or very important in their purchase decision (Figure 2). Others perceived COOL as moderately important (9.6%), somewhat important (7.2%), not at all important (27.7%) or disclosed no opinion (14.6%). Those who did not disclose their opinion said they were indifferent; they could be categorized among those who said COOL was not at all important: *“as long as there is meat provided at affordable prices all the time we will purchase when we have ability. If the animal is raised in Ghana and we have money we will buy; if it is raised, slaughtered and packaged outside Ghana and we do not have money we will not buy”* (voice from audience during validation forum).

It is interesting that over 80 percent of Ghanaian responding consumers have knowledge of country of origin of food. Origin is an appropriate way to differentiate food products (see also Verbeke and Rooson, 2009). The higher percentage of the literate in the sample may be a contributing factor (see table 1). Even in a developed continent like Europe, recent work of Vahonacker *et al.* (2011) showed that “in general, European consumers have little knowledge or awareness regarding the origin of fish”. They concluded in their study that perceptions of fish origin are based more on emotions than on rational considerations. Consumers do not prioritize fish origin

as an information cue, although variation is present between different consumer groups. Verbeke and Ward (2006) observed in Belgium that consumer interest is generally low for traceability, moderate for origin and high for direct indications of quality like a quality guarantee seal or expiration date and species names. However, in the US "surveys showed that 90% of consumers want to know where their food is grown and processed, just as they now are informed as to where their clothes are made," said Stokes (Pitts, 2002).

There is a thinking that market differentiation potential of origin and quality labeling pertains mainly to a product's healthiness appeal (Verbeke and Rooson, 2009). In the current study about 50 percent of all respondents said that the US poultry meat they buy was high quality, tasty and of high brand. It was readily available on the market all year round although majority (67%) perceived that the price paid per unit of poultry product was high or too high.

The logit results showed that the determinants of consumers' intention to purchase poultry from Ghana were anchored on product packaging, meat quality and expiry date (Table 4). Country of origin image and ethnocentrism are important but they do not drive choice of US poultry meat by Ghanaian consumers. Those who hold the view that only products that are unavailable in Ghana should be imported also buy the made-in US Poultry label. It suggests that as long as US poultry meat is available all year round, and meets the basic quality standards it will be purchased by those who can afford it. Quality rather than ethnocentrism is the key driver of poultry product choice. Huddleston *et al* (2001) found that consumers in Poland do not allow nationalistic feelings to influence product quality evaluation of necessary products. Poultry meat can be considered as a necessary product in the urban Ghanaian consumers' diet. In the current survey majority of

respondents agreed that poultry meat was suitable for every day dishes, easy to prepare, tasty, protein rich and healthy.

The results on the positive relationship between imported product choice and cues such as product packaging, meat quality and expiry date were also observed in other studies (Kaynak *et al.*, 2000 and Ahmed *et al.*, 2004). The results of descriptive analysis that Ghanaians do not hold the 'Made-in- Ghana' poultry label in low regard relative to foreign labels also support these findings. The made in Ghana poultry is supplied fresh (live or slaughtered and sold within a month) and provided in packages (polythene bags) that makes handling at short distance easy.

The implications of the results are that if Ghanaian poultry meat cuts can be packaged under assured hygienic conditions made available all year round and offered at prices comparable to US poultry meat its demand will increase. Currently domestically produced poultry is sold as live birds or whole dressed chicken. Producers and suppliers of US poultry meat should work at maintaining the total quality image.

#### **4. CONCLUSION AND RECOMMENDATIONS**

The major question of concern addressed by this study was: What factors influence the choice of US poultry label by consumers in Ghana? The finding that consumers who attach a high level of importance to product packaging, meat quality and expiry date were likely to choose US poultry label, suggest that entrepreneurship development in Ghana's poultry industry is imperative. Again, since consumers who attach importance to country of origin do not necessarily choose foreign (here, US poultry label), the made in Ghana label can be promoted and it will receive attention. Indeed, if those who hold the view that only products that are unavailable in Ghana should be imported, still purchase US poultry label, then

the bigger issue is consistency in the provision of the product at affordable prices on the market and not ethnocentrism or country image.

There are two policy issues: The first is a strong livestock policy that focuses on agro-industrial project management. Such a policy will develop strategies for sustainable live bird supply chains, processing and marketing. The entrepreneurial imperatives will be tackled. Training program for all staff, to ensure that continual high standards are maintained and product quality standards are strictly adhered to should be developed and facilitated by sustainable development NGOs whose fees are low. Companies such as Farmer George Ltd. that have R&D laboratories and undertake periodic seminars need to be encouraged to share management and production practices with others on a continual basis at their Farm Complex. They should invite seasoned professionals from within and other countries including US to assist. When local teams work diligently with professionals from countries that provide quality labels transfer of knowledge and skills will be assured. The second is a strong Poultry Farmers' Association. The existing association needs to be strengthened to focus on training, research and development and partnerships. The latter will augur well for economies of scale through administration, financial management and marketing. With large scale supply at all times, consumer confidence will improve and the demand for made-in-Ghana poultry label will be at par with the made-in US poultry label.

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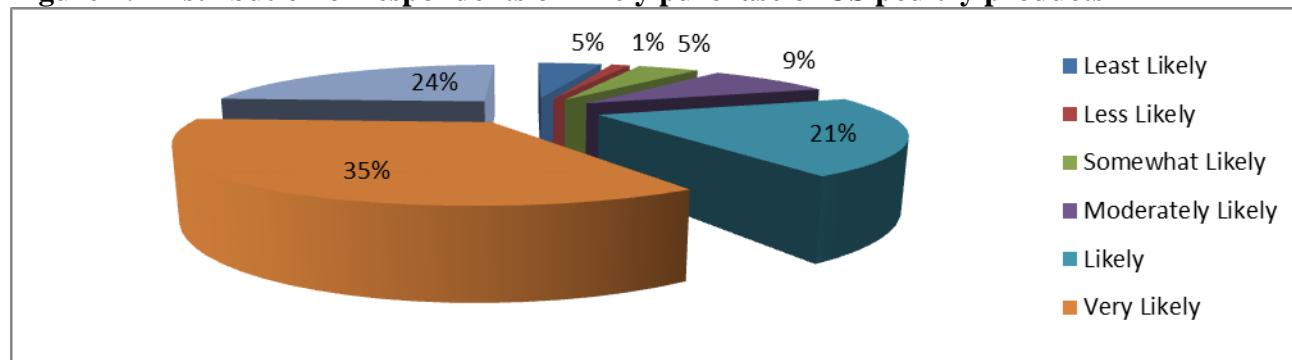
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**Table 1: Summary of personal characteristics of respondents**

Variable and description	Always buy US poultry label	Not always buy US poultry label
Gender (% male or female)		
Male	34.9	36.7
Female	65.1	63.3
Age range (years) (% in range)		
20-40	76.3	71.1
>40	23.7	28.9
Age (years)		
Mean	33.49	34.37
Education (level of formal school) (% in	Category)	
None	8.2	9.5
Primary	28.5	29.5
Some secondary	9.5	25.3
Secondary	25.3	9.5
Some College	14.7	14.7
University graduate	11.6	11.6
Ethnicity(n=379)		
Akan	35.4	37.4
Ga Adangbe	18.6	22.2
Fante/Nzema	13.6	9.1
Guan	1.1	1.0
Ewe	18.6	16.2
Brong	1.8	3.0
Northern/Upper	7.5	4.0
Hausa	1.1	2.0
Other	2.1	5.1
Household composition-		
Mean number older than 17 years	3.1	2.9
Mean number between 5 years and 17 years	1.1	1.2
Mean number younger than 5 years	0.6	0.6
Occupation (regular income earning	Activity)(n=370)	11.3
Professional/Office	9.5	17.5
Technical Supervisors	8.8	70.1
Skilled/	76.9	1.0
Heavy manual/unskilled	4.8	
Net income (monthly earning) (n=372)		
<100	8.7	9.5
100 -300	22.4	26.3
301 -500	25.3	17.9
501 -1000	15.9	16.8
1001-3000	6.9	2.1
3001-5000	1.4	2.1

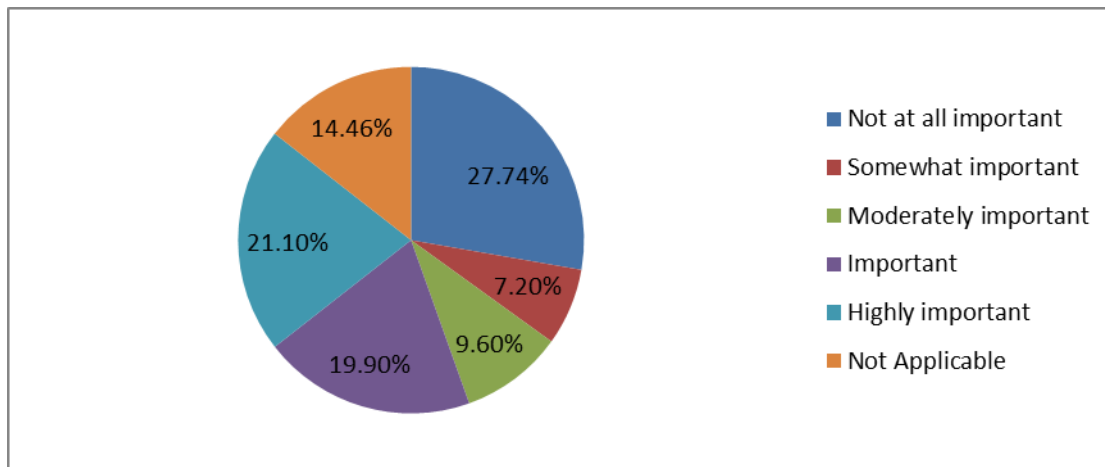
**Table 2: Consumers preference of poultry in respect to countries**

Country	Least Likely	Less Likely	Somewhat Likely	Moderately Likely	Likely	Very Likely	Not Applicable
China	23.2	5.8	7.2	10.0	10.6	4.4	38.7
EU	5.6	3.4	2.4	14.0	21.0	27.5	26.1
Ghana	1.6	2.0	2.4	6.4	12.4	59.3	15.8
US	4.8	1.4	4.6	9.0	21.4	34.7	24.0
Korea	16.6	6.4	5.4	10.6	11.2	5.0	44.7
Brazil	8.6	4.2	5.2	10.2	16.8	24.2	30.7
Other	1.2	1.4	1.0	1.2	1.0	1.8	

**Figure 1: Distribution of respondents on likely purchase of US poultry products****Table 3: Summary of variables selected for logit model**

Variable	Description and measure	<i>a priori</i> expectation
ABUSPOL	Always buy US poultry label (1=very likely or likely to buy, 0otherwise)	
COO	Country of Origin (1=not at all important in decision to purchase ...5=highly important)	+
MS	Meat safety (1=not at all important... 5= highly important)	+
PA	Package (1=not at all important... 5 = highly important)	+
ED	Expiry date (1=not at all important...5= highly important)	+
PD	Producer (1=not at all important...5= highly important)	+
TA	Taste (1=not at all important...5= highly important)	+
ETH	Ethnocentric (Buy from foreign country if not available in Ghana (1=Strongly disagree ...5= strongly agree)	-

**Figure 2: Consumers perception of the importance of product country-of-origin**



**Table 4: Logit results of factors that influence decision to choose US poultry label**

Variable	Co-efficient	Standard error	Significance level
Poultry meat package	0.337*	0.189	0.075
Poultry meat expiry date	0.466***	0.165	0.005
Poultry meat quality	0.432**	0.195	0.027
Poultry meat country of origin	-0.595***	0.170	0.000
Poultry Producer	0.182	0.181	0.315
Poultry Taste	-0.228	0.196	0.245
Ethnocentrism	0.278**	0.135	0.040
Constant	-1.066	0.736	0.148
-2 Log likelihood	=194.165		
Cox & Snell R Square	= 0.120		
Nagelkerke R Square	= 0.224		