

A STUDY ON THE DEMAND DIFFERENTIALS IN POULTRY BIRDS CONSUMPTION IN RIVERS STATE, NIGERIA.

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Abstract

The study assessed the demand preferences of poultry birds by consumers in Obio/Akpo Local Government Area of Rivers State, one of the most populated council areas in Nigeria. A total of 83 out of 100 assessed individuals actively participated in the study. Obio/Akpo was chosen for the study because of the huge population it parades and as an agglomeration point for people of different ethnic, social and religious divides. The local government Area was purposively divided into three zones and structured questionnaire served to the respondents based on the population strength of the zones. Variables were analysed using simple statistical tools. The study showed that the exotic breeds of poultry were the most preferred of all the poultry birds studied and most accepted after some parameters were examined. The researchers associated this level of acceptance to the intense advertisements in promotion of the exotic breed such as tender meat, soft and easy-to-chew bones, bigger meat size, quick maturity etc in recent times. This level of product promotion which was never undertaken for other species of poultry the researchers assume may have tilted the balance of demand in the favour of the exotic birds.

Key words: Chicken, breed, indigenous, exotic, demand, differential

Introduction

Sebho(2016) noted that the Shortage of protein is a problem in Africa; however, Poultry alone contributes about 30% of animal protein consumed globally, representing about 33% of global meat production. Ayieko *et al*(2014) in another study in Uganda observed that indigenous Chicken(a specie of poultry) is increasingly becoming an essential condiment in urban food menu and reported a rise in its demand which has resulted in an increased production by smallholder farmers. The study also showed that the rise in the demand for indigenous chicken meat has also spread to peri urban areas where it is preferred to red meats. Higenyi *et al*(2014) in another another in Uganda also noted the same pattern of demand in a separate study indicating that it contributes about 80% of poultry meat in the market. However, the study indicated that this caused an increase in the purchase price of native chicken making it more expensive. This development limited its demand and consumption by the poor rural families. Although the exotic chickens were introduced in Uganda many years ago, native chickens remain significant in the diets of many

Ugandans evidenced in higher prices in Kampala of local chicken than the exotic ones (Emuron *et al* 2010). The limited supply of local chickens does not however offer enough explanations for consumers' willingness to pay more for them when there are alternatives in the same market(Kyarisiima *et al*,2011). In a research in Nigeria, Killebrew *et al*(2010) reported that traditional poultry keeping was becoming a common place with rural households and the local chicken are becoming more popular, making up about 51 to 67 percent of rural flocks. Literature suggests the preference for indigenous or native chicken seems to be universal in Africa.

With so much emphasis on the effects of the consumption of red meat especially on adults, many individuals are shifting to the poultry and fish as alternative sources of animal protein. Those who are health conscious emphasize organic based production methods and the contents of the feeds fed to the birds in particular. Bongani(2013), reported that in Swaziland, consumers prefer organically produced native chickens than exotic species and noted that the demand for exotic chicken was in decline. Others have indicated that the taste and meat quality as special areas of interest in native chicken. These considerations introduced bias in the demand for chicken meat with consumers preferences skewed towards the local or indigenous specie. Higenyi *et al*(2014) noted that the preference for indigenous chicken rather than exotic ones is influenced by perception of quality values like suitability for special dishes, taste and flavour. In spite of unfair marketing, the demand for native chickens continues to rise. Many eateries and food vendors now serve indigenous chicken meat because of this evident and emerging demand differential.

Recent developments in the poultry industry suggest that in parts of Nigeria production skew is considerably towards commercial production of exotic breeds of poultry; this has relegated the production of indigenous species to the background in those regions of Nigeria. The production preference may be because of socio-economic considerations among others. However, this development tends to encourage market monopoly in favour of the exotic breeds despite evident preferences for the indigenous species by a significant number of Nigerian consumers. In other climes, the indigenous breeds are gradually receiving the necessary attention. According to Muvék Development Solutions Ltd(MDSL)(2013), given the

evident economic and social benefits of indigenous poultry-keeping and its preferred status and widespread nature in rural Tanzania (the case study), it is believed that commercial expansion of the indigenous poultry industry will go a long way to contribute to rural development with multiplier effects on employment generation, poverty reduction and improvement in livelihood especially for the rural poor. To the urban folks, there is a general preference for local chickens over the exotic breeds because of the belief that they are tastier and without drug and hormone residues.

Kperegbeyi(2009) noted that the prospect for local chicken as a source of poultry meat in the Niger Delta of Nigeria (Rivers State inclusive) is promising because of the rising preference for the meat texture. Other reasons adduced for the increase in the demand for local chicken are its sizes, cheaper prices and palatable meat when compared to exotic breeds. Many consumers in this region of Nigeria events suggests prefer local chicken to exotic ones. Low management and initial investment costs and favourable market demands are evident advantages for local chicken production in the Niger Delta of Nigeria. Citing Singh(1990), Kperegbeyi(2009) reported that Local chicken contains 56% water, 320 calories and 100g of meat energy, when compared with 71% water and 151 calories of exotic breed. These may have been plausible reasons for consumer preferences in this climate.

Indigenous chicken production offers poultry farmers' good business opportunities. Presently, its production is not as highly competitive as the exotic breed industry. The increased production of local chicken will help mitigate protein shortage considering its low investment cost and adaptation to the environment and create wealth for the farmers as indigenous chickens tend to generate more revenue. However, its profitability is yet to be empirically established and the factors affecting the profitability yet to be studied (Bongani, 2013).

Statement of the Problem

Ovie(2016) opined that indigenous chicken production may hold better profit prospects for farmers because they command higher market prices in Bayelsa State a neighbouring state to Rivers State and the demand for organically produced chicken like the indigenous specie seems to be high. However, limited supply of indigenous chickens in the market is making the product too dear and impacting effective demand. This may have skewed the demand differential in favour of exotic breeds and negatively impacted the income of the rural smallholder producers. Market studies by (MDSL(2013) revealed that consumers have more trust in the production methods used in raising indigenous chickens on the assumption that

indigenous chickens have better taste than exotic breeds, and are willing to pay more for the local chickens and its eggs. However, supply has always lagged behind demand in Rivers State.

Despite being largely eaten in the rural areas in River State and a reasonable amount of poultry and poultry products consumed in the peri-urban, it is arguably believed that the potentials of the indigenous poultry industry remains significantly untapped. Production scales are uneconomically low in spite of rising demand and the intense taste of the chickens and production methods generally accepted and trusted. A market study contracted by Research Into Use (RIU)(2010) showed that the market price of local chicken in major urban centres in Tanzania was higher than that of the exotic chicken, making the local chickens a preserve for the well-to-do upper and middle classes. The institute believes a greater share of the urban market remains untapped due to limited supply of indigenous chickens and the high price which has precluded the low income class in urban areas from having it in their food menu. Low production of indigenous chickens may be limiting the optimization of market opportunities. It is also a lost opportunity to contribute to the growth and development of the poultry subsector of the economy (MDSL, 2013)

In the discusses of informed scholars, it is believed that a major limiting factor in the large scale production of indigenous chicken is the paucity of necessary skills in both management and production methods especially in raising day old chicks and administration of quality feeds amongst other constraining factors. MDSL(2013) stated that among the major constraints limiting the expansion of the indigenous poultry production are demand and supply deadlocks in the value chain, limited extension support, inadequate access to credit, low quality inputs and the high prices and inadequate market systems. On the other hand, it was also pointed out that agribusiness suppliers and marketing agents have not shown enough interest in extending their arts to rural areas because of low demand for inputs and services, as indigenous poultry production methods are largely subsistence-based, free-ranged, naturally bred, and hardly vaccinated nor treated when sick. Agribusiness suppliers will require reasonable demand for inputs before they can extend hands to the smallholder poultry farmers in the rural areas. The study therefore proposed and studied the following objectives: ascertaining the extent of demand disparity between indigenous chicken and the exotic breeds in Obio/Akpor Local Government Area of Rivers State and the reasons for such disparity and lag in the supply of indigenous chicken if it exists and the economic impacts they may have on the food security and economy of the study Area.

Methods and Materials

The study area was conducted in Rivers State, Nigeria. Uche(2016), citing Inemesit(2013) stated that Rivers State is one of the six states that make up the south-south geopolitical zone of Nigeria. It is bounded to the north by Imo, Abia and Anambra states; to the east by Akwa Ibom State; to the south by the Atlantic Ocean and, to the West by Bayelsa and Delta States. Its capital is Port Harcourt. The state lies at latitude 4°45' and 4.87° North and Longitude 6°50' and 6.93° East and covers an area of 10,432.3 sq km with a population of 5,198,716 (census figures) and a population density of 468 people per square kilometre.

The study targeted the entire population of poultry product consumers in Obio/Akpor Local Government Area of Rivers State. It was purposively chosen because of the huge population and the prospect of locating respondents with a wider social, religious and cultural spectrum. The study Area was divided into three zones for easy assessment.

Relevant and necessary information for the study were gathered through the use of questionnaire. Copies of the questionnaire were administered to

individuals who consume poultry products. Copies of the questionnaire were administered through the assistance of persons who were conversant with the given environment. The questionnaire was divided into two sections. One was designed to obtain information on the consumers' personal data; the other about demand preferences in poultry products and the reasons for such preferences. Relevant statistical and arithmetic tools were used to capture the specific objectives of this study.

Results and Discussions

The socio-economic strata of the respondents

This section discussed the socio-economic strata of the respondents who were studied by the researchers. The findings are stated below as seen from the field. The socio-economic strata of the respondents however were not studied with respect to empirical relationship to poultry product consumption; it only established the acceptability of poultry products across the various social strata. However, the demand preferences are shown in the appropriate sectors of the study.

Table 1: the Socio-Economic Characteristics of Respondents

Variables/Items	Frequency	Percentage
Gender		
Males	39	47
Females	44	53
Age		
21-30	37	44.6
31-40	11	13.3
41-50	7	8.4
51 and above	2	2.4
Unavailable age data	26	31.3
Marital Status		
Single	50	60.2
Married	29	34.9
Widowed	2	2.4
Divorced	2	2.4
Educational attainment		
Primary	3	3.6
Secondary	22	26.5
Tertiary	58	69.9

Source: Field survey, 2017.

There were no socio-economic inhibitions associated with the demand for any of the poultry birds studied. All individuals in the socio-economic strata were represented. This suggests that the consumption of poultry birds was generally accepted by the inhabitants of the area. All the respondents randomly sampled, interviewed or questioned attested to consuming a specie or brand of poultry bird. The only variation was on specie preferences which were mostly determined by individual differences.

Consumers Preferences for various poultry species

This section investigated consumers expressed preferences among the poultry species found and bred in the study area. The poultry birds put up for studied were the indigenous birds, the exotic brands, turkey and the duck. The result of the findings is shown in the table below.

Table 2: consumers' preferences for the various poultry species (brands)

Part of food menu	Consumers acceptance of species	percentage
Local chicken	34	41
Agric chicken	56	67.5
Turkey	22	26.5
Duck	3	3.6
Most preferred	Frequency	Percentage
Local chicken	29	34.9
Agric chicken	44	53
Turkey	9	10.8
duck	1	1.2

Source: Field survey, 2017.

The result showed the exotic chicken (agric fowl) was the most preferred by the consumers contrary to assumptions by the researchers and, the duck the least preferred; some, nevertheless indicated interests in more than one specie. However, events suggest the exotic species are the most advertised, produced and marketed. Zhang (2015) noted that brand image is a key driver of brand equity. This refers to consumer's perceptions about a brand which influences a consumer's behaviour. Marketers marketing strategies influence consumers' perceptions and advertisements about a brand can impress the brand image on consumers, stimulate consumers' effective demand of the brand and develop brand equity. This may have affected the demand and supply of the various poultry brands as constant and regular media advertisement of the exotic breeds in the study area may be influencing consumers' preferences and demands. Other factors affecting purchasing pattern of poultry birds in the study area may need further detailed investigation in order to understand the purchasing behaviour of the consumers and make a verifiable prognosis on the consumers demand pattern. Such detailed study is however outside the

purview of the research which focused on the peripheral and preliminary investigations on taste, meat quality, affordability and method of production.

Haripada et al(2012) have stated that consumer Preference should be a program that explores factors that affect local consumers' shopping decisions. Mensa et al,(2015) stated that consumption can be understood through the analysis of multiple factors. The researchers are recommending further investigations in the area of economic, cultural, social, religious, marketing and personal factors among others that may have exerted some influence on demand and determined the consumers' behaviour.

The determinants of consumers' preference patterns among poultry birds

Table 2 established the consumers' preferences in the study area. However, the factors responsible for such preferences were not reported. This section of the study shows the noted factors that had informed the observed demand preferences. These factors are shown in the table below

Table 3: consumers' preference pattern and its determinants

Poultry specie	Better taste	Strong meat	Cheaper	Organic breeding
Local chicken	24	6	0	8
Agric chicken	29	39	5	7
Turkey	6	8	1	0
Duck	0	0	0	1

Source: field survey, 2017.

The respondents in the study area showed a significant acceptance of the taste, meat texture and affordability of the agric (exotic specie) poultry birds. It is only in the aspect of organic breeding as a consumer preference factor that the local chicken had a slight edge over it. Matsatsinis and Samaras (2000) in Abdulrahman et al (2016) stated that varieties of theories may have attempted to describe the factors that influence consumers' behaviours in purchasing decisions. The aim of investigating consumer behaviour is to ascertain patterns of consumers'

attitudes in their decision to purchase or ignore a product. The conclusion was that consumers' preferences for a product arise from the combination of different factors. Taste and meat texture (product quality) appear to be the most compelling factors that influenced the demand for poultry products in the study area. Contrary to the researchers' assumptions, price was never a compelling issue, it could be seen that the respondents identified with taste and meat quality as important variables to consider in the purchase of poultry meat. FAO(2017) pointed that all

markets are shaped by tastes and preferences. These are partly structured by culture and implanted information and knowledge of products and services (the influence of advertising).

Norman(2010) in Salawu et al, (2014) suggested that information about consumers' preferences, for different items and services is important to producers. Information about consumers' preferences enables producers sell more products even at higher prices. Being informed enables them to cater to consumers' desires and consumers benefit by openly expressing their preferences and in this way, the products they want are better likely to be produced and made available. Poultry farmers in this locally may profit better if more of the exotic birds are

produced based on the level of demand preferences presently. However, as people become better informed on production methods, health issues and the benefits of organically produced poultry products, demand pattern may change. For now the poultry farmers can leverage on contemporary events to maximize profits.

Expressed effective demand and probable reasons

Economics identifies the differences between expression of desire and actual purchase. The desire must however be backed by the willingness and ability to pay factors. The statistics of respondents who backed expressed desire and actual purchases and the reasons for such expression is shown below.

Table 4: Areas of effective demand and probable reasons

Poultry specie	Available	Affordable	Bigger sizes	Better meat quality
Local chicken	2	0	0	14
Agric chicken	23	6	20	21
Turkey	0	0	0	3
Duck	0	0	0	0

Source: field survey, 2017.

Effective demand was in favour of exotic brand. The respondents saw it as a preferred alternative because it was affordable, much more available, bigger meat size and better meat quality (tender meat and easy-to-chew bones). Turkey and duck had little or no appeal to the consumers. The local chicken, the exotic brands, the duck and the turkey are all sources of white protein adjudged to being better options to red meat. The skewed demand in favour of exotic species may be informed by advertising that has for a long time promoted the exotic brand (the researchers observed the other species of poultry birds were never advertised). Studies suggest that consumers contending with choice decisions find brand names to be very useful piece of information in making a choice. Consumers tend to chose brand name before considering price. Brand is a metric used by consumers to make choices quickly and efficiently based on relevant information. Accordingly, advertising may have been the source of information that is projecting the exotic breeds above other poultry birds and this may have skewed demand.

Conclusion

The findings of the study did not align with popular realities in other climes that showed demand preferences skewed towards indigenous breeds of poultry birds, because of assumed intense taste and meat quality advanced by other researchers. The exotic brand of poultry birds was discovered to be the most preferred of all poultry species both in demand and intrinsic qualities such as taste, meat quality, and flavour, and also appeared to be affordable. However, the researchers observed that there has been sustained advertisement which

evidently promoted the presence of the exotic breeds and never of other poultry birds. As consumer education increases on the benefits of organically bred birds and the side effects of antibiotic use in the rearing of exotic birds, it is believed the demand pattern may change. Presently, farmers and marketers may leverage on the contemporary demand pattern to maximize profit and market equity.

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