

Determinants of Choice of Market Channel of Broiler Value Chain Main Actors in Southwest, Nigeria.

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DOI: <https://dx.doi.org/10.47772/IJRISS.2023.7011076>

Received: 31 October 2023; Revised: 14 November 2023; Accepted: 20 November 2023; Published: 09 December 2023

ABSTRACT

This study on Determinants of choice of market channel of broiler value chain main actors in Southwest, Nigeria was carried out in Lagos and Ogun States, Nigeria. Multistage sampling procedure was used to select two hundred and thirty respondents made up of broiler producers, broiler processors, live broiler marketers, and dressed broiler marketers. Primary data were used for the survey. Data were analysed with the use of descriptive statistics and multinomial regression analysis. Male farmers in their active age dominated the broiler enterprise across the value chain in the Southwest. Majority (53.3%) of the actors had tertiary education; about 70.9% of the respondents had an average experience of 6 years in broiler value chain enterprise with an average household size of 3 persons. However, majority (64.8%) of the respondents did not belong to any association. Results revealed that level of education and transportation cost were significant as determinants of preference of local market over farm gate, however, only transportation cost had odd ratio greater than 1. The Age, years of marketing experience, price of broiler chickens and membership of association of the respondents were significant as determinants of preference of urban market over farm gate, however, the age of the respondents had odd ratio less than 1. The study recommends that, entrepreneurial trainings should be organized for young adults by various government agencies and NGOs and, actors be encouraged to form themselves into association to promote sales outside the farm gate.

Keywords: Determinants, Broiler, Value Chain, Actors, Market Channel

INTRODUCTION

Poultry is one of the important sub-sectors of agriculture in Nigeria. United States Department of Agriculture (USDA, 2013) asserted that poultry sub-sector is the most commercialized of all the sub-sectors of agriculture in Nigeria. Broilers attributes fit into measures of meeting food security challenges that has ravaged the economy due to its early maturing characteristics hence, fascinate farmers that want fast income in addition to consumers' preference for tender meat as evident in hotels and eateries preference for tender broiler chickens meat [Foundation for Partnership Initiatives in the Niger Delta (PIND), 2013].

The increase in population over the years in Nigeria is not commensurate with the expected market trend for

broiler chickens. This was buttressed by the National Bureau of Statistics (2020) that Nigeria population recorded population growth of 8.07% from 2016 to 2019 why the growth of broiler production within the same period was not consistent to meet the population growth (FAO statistics, 2020). In addition, if the ban on imported frozen chicken is sustained and land borders remain shut, there may be more demand for locally produced broiler. This is supported by the Central Bank of Nigeria (CBN, 2004) report that the ban of poultry products by the Federal Government of Nigeria (FGN) has caused a turn-around in poultry which grew by 10.3% as compared to 0.3% in 2003. The growth was partly due to the ban and also due to the use of veterinary services. CBN (2019) stopped illegal importation of 1.2 metric tons of frozen poultry into Nigeria. Table 1 shows the trend of meat production for a period of 11 years (2008 – 2018) estimated as 16,969,541.00 tons. Poultry meat of 3,628,994 tons accounted for about 21% of the total meat produced during this period. The growth rate for total meat and poultry meat were not consistent during the period under consideration. It was bad for poultry meat which had negative growth rates of – 2.25% and -2.82% for 2017 and 2018 respectively.

Table 1: Nigeria Production of Poultry Meat (2008 – 2018)

Year	Quantity of Meat (tons)		Growth (%)	
	Total Meat (ton)	Poultry Meat (ton)	Total Meat (%)	Poultry Meat (%)
2008	1,868,793.00	519,984.00	0.00	0.00
2009	1,914,625.00	545,925.00	2.45	4.99
2010	1,946,465.00	489,977.00	1.66	-10.25
2011	1,993,346.00	342,950.00	2.41	-30.01
2012	1,913,054.00	384,625.00	-4.03	12.15
2013	2,064,138.00	363,144.00	7.90	-5.58
2014	1,031,254.00	190,984.00	-50.04	-47.41
2015	1,056,982.00	197,580.00	2.49	3.45
2016	1,056,983.00	202,848.00	0.00	2.67
2017	1,059,185.00	198,288.00	0.21	-2.25
2018	1,064,716.00	192,689.00	0.52	-2.82
Total	16,969,541.00	3,628,994.00		

Source: FAO Statistics, 2020

Further, poultry farming has considerable potentiality for reduction of malnutrition, generation of employment, provision of income opportunities and alleviation of poverty, especially for smallholder farmers in Nigeria. In addition, poultry farming also provides opportunities for other industries like: feed mills; hatcheries; veterinary drugs; feed ingredients market; and as a market outlet for maize and soybeans farmers (Hassan, Ahmadu, Oseni, Dawang, Rahman and Abdulsalam, 2016).

In 2015, the Federal Government of Nigeria banned importation of poultry products into the country. The statistics provided by the National Veterinary Research Institute (NVRI) supported the ban that Nigeria had population of 180 million birds made up of 120 million rural backyard poultry and 60 million commercial poultry made up of layers and broilers which are expected to meet the poultry needs of the country (NVRI, 2015). About two years after the ban, Nigeria Customs Services (NCS, 2015) reported that from time to time, tons of frozen chickens are seized on the borders. These smuggling activities may be the reason why the national poultry industries cannot meet the poultry meat demands of the country and there is a need to grow the poultry industry to stop smuggling activities.

It is envisaged that there will be a shift to poultry production to meet the meat demands of Nigeria. Apart from the ban on imported frozen chicken which has led to increase in local production of broiler chicken, other factors such as: awareness in consumption of white meat such as chicken; herdsmen – farmers' clashes; climate change; and other factors limiting production of poultry alternatives such as beef and artisanal fish in Nigeria may cause a shift to consumption of poultry products to meet the protein needs of the people.

According to CBN (2018), Federal Government of Nigeria commenced “School Feeding Programme” to feed pupils with food rich in protein and other food nutrients in pilot schools. Poultry products (meat and eggs) are parts of the components of menus served to these pupils. Inclusion of these poultry products in the “School Feeding Programme” have created huge potentials which are yet to be fully tapped for the development of poultry value chain (CBN, 2019).

Olufadewa, Obi-Egbedi and Okunmadewa, (2018) used farm gate, local and urban markets as market channels for poultry. Farm gate is outlet for sale of produce at the point they are produced or processed while local market is a channel for sale of produce in the vicinity where they are produce (MbaSKOOL 2014). Urban markets are daily market outlets which are typical of city markets made up of locked shops and offer opportunity for sales day and night (Ehinmowo and Ibitoye, 2010).

Value chain is described as the totality of activities carried out from the conception of a business idea till the product of that business gets into the hand of final consumers. Agricultural value chain includes activities such as: input supply, production, processing, wholesaling and retailing to the final consumption (Tola, 2014).

According to United Nations Industrial Development Organization (UNIDO, 2009), value chain analysis is the process of breaking a chain into its constituent parts in order to better understand its structure and functioning. This analysis consists of identifying chain actors at each stage and discerning their functions and relationships; determining the chain governance, or leadership, to facilitate chain formation and strengthening; and identifying value adding activities in the chain and assigning costs and added value to each of those activities. Value chain analysis includes evaluation of stages of value chain for flows of goods, information and finance. This will help to detect problems or identify opportunities to improve the contribution of specific actors and the overall performance of the value chain.

Therefore, this study will contribute to existing knowledge by providing factors that affect commercialization and choice of market outlet among poultry farmers. Thus, providing vital information for holistic market planning and innovation in marketing. Specific objectives of this study are to:

1. describe the socioeconomic and demographic characteristics of broiler main actors in the study area; and
2. estimate the determinants of choice of market channel of broiler value chain main actors in the study area.

METHODOLOGY

The Study Area

The study was carried out in Southwest, Nigeria. Southwest is one of the six geopolitical zones in Nigeria. The zone is made up of six States: Lagos; Ogun; Oyo; Osun; Ondo; and Ekiti. The area lies between longitude $2^{\circ} 31^1$ and $6^{\circ} 00^1$ East and latitude $6^{\circ} 21^1$ and $8^{\circ} 37^1$ North (Agboola, 1979; Oluwatosin. and Ojo, 2018). The total land area of Southwest zone is 77,818 km² (National Population Commission, 1991).

The zone is known with two distinct seasons which are: rainy season (April-October) and dry season (November-March). It has a temperature range of 21°C and 28°C with high humidity of 77%. National Bureau of Statistics (2017) estimated the 2016 population of the Southwest zone to be 35, 014,260. This represented 18% of Nigeria 2016 estimated population of 193,392,517. This population has great potential for broiler market.

Sampling Procedure

Broiler value chain actors in the Southwest were the population of the study. A three stage sampling procedure was used in the selection of the representative samples for the study. The first stage involved Purposeful selection of two States from Southwest zone which were Lagos and Ogun States because they were most active in broiler value chain activities. The second stage was purposeful selection of Lagos East and Lagos Far-East Zones of Lagos State Agricultural Development Authority (LASADA) because they were the most active zones in broiler value chain (LASADA, 2021). Also, there was a random sample selection of Ijebu Ode and Ilaro Zones from the four Ogun State Agricultural Development Programmes (OGADP). The third stage involved the proportionate random sampling from the list of broiler actors obtained from the ADPs as presented in table 2.

Table 2: Proportionate Samples of the Broiler Value Chain Actors

S/N	Actor	Lagos ADP	Sampling Frame	Sample Size	Ogun ADP	Sampling Frame	Sample Size	Total Actors
1	Producers	Lagos East	130	26	Ijebu Ode	160	32	
		Lagos Far-East	115	23	Ilaro	145	29	
	Total			49			61	110
2	Processors	Lagos East	70	14	Ijebu Ode	40	8	
		Lagos Far-East	30	6	Ilaro	62	12	
	Total			20			20	40
3	Live broiler marketers	Lagos East	148	15	Ijebu Ode	51	8	
		Lagos Far-East	32	5	Ilaro	78	12	
	Total			20			20	40
4	Processed broiler marketers	Lagos East	61	12	Ijebu Ode	36	7	
		Lagos Far-East	42	8	Ilaro	75	13	
	Total			20			20	40
	Total							230

Source: Field survey, 2022

Primary data used in this study were obtained from selected broiler value chain actors in the study area. Data collection involved the use of structured questionnaires to obtain data from the actors on socio-economic

and demographic information such as age, sex, household size, marital status, broiler marketing experience, years of business experience, years of formal education, contractual agreement and choice of market outlet. Data analysis involved the use of descriptive statistics such as mean, standard deviation and percentage for objective one and Multinomial Logit Regression analysis for objective two.

Multinomial Logit Regression (MNL)

The choice of market channel among the value chain actors was determined using MNL model following (Olufadewa, Obi-Egbedi and Okunmadewa, (2018), Sigei, Hillary and Lawrence (2014) and Xaba and Masuku, 2013). The MNL model for choice of market channel for broiler main actors was stated as:

$$\alpha_{ij} = \theta_0 + \theta_1\mu_1 + \theta_2\mu_2 + \dots + \theta_n\mu_n + \varepsilon_i$$

Where:

α_{ij} = Choice of market channel

$i=1, 2$ and 3 representing farm gate =1(Reference category), h_1 market =2, urban market =3 respectively

μ = factors affecting choice of market channel choice

θ_0 = intercept

$\theta_1 - \theta_n$ = parameterstobeestimated

e = error term.

j = alternative choices

μ_1 = Age (in years)

μ_2 = Education level (in years)

μ_3 = Years of marketing experience (in years)

μ_4 = Price per kg of meat (in Naira)

μ_5 = Distance to market (in km)

μ_6 = Mortality rate (in number)

μ_7 = Transportation cost (in Naira)

μ_8 = Membership of association(Yes = 1; No = 0))

μ_9 = Stock size (in number)

μ_{10} = Contractual agreement (Yes = 1; No = 0)

μ_{11} = Seasonality of activity (Yes = 1; No = 0)

Use of selected independent variables to investigate determinants of choice of market channel among the broiler value chain actors was based on previous studies by Olufadewa, Obi-Egbedi and Okunmadewa, (2018), Sigei, Hillary and Lawrence (2014), and Xaba and Masuku, (2013). MNL allows use of categorical dependent and independent variables.

RESULTS AND DISCUSSION

Socioeconomic Characteristics of Broiler Value Chain Actors

The distribution of the main value chain actors according to capacity of production, gender, age, marital status, educational level, household sizes and years of business experience was presented in table 3.

Business Capacity of Broiler Value Chain Actors

Results in table 3 present the capacity of the respondents in the study area. The results revealed that, 84.8%, 13.8% and 1.7% of the respondents had less than 500 birds' capacity, between 500 and 1,000 birds' capacity and between 1,001 to 1,500 birds' capacity respectively. The result has shown that 70.9% of the respondents had less than 10 years' experience in broiler value chain. The minimum capacity for the actors was 50 birds. The implication of this scale is people could start small in broiler production and then increase their scale. This result aligns with Afutu (2011) that majority of broiler value chain actors (70.0%) had capacity of below 2,000 birds which he classified as small-scale poultry enterprise.

Table 3 Socioeconomic Characteristics (Business Capacity) of Broiler Value Chain Main Actors in Southwest Nigeria

Variables	Producers		Processors		Live Broiler Marketers		Dressed Broiler Marketers		Pooled	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Business Capacity (No. of Birds)										
< 500	89	80.9	34	85.0	32	80.0	40	100	195	84.8
500 – 1,000	19	17.2	6	15.0	6	15.0	0	0.0	31	13.8
1,001 – 1,500	2	1.8	0	0.0	2	5.0	0	0.0	4	1.7
Total	110	100	40	100	40	100	40	100	230	100

Source: Researcher's computation, 2022.

Distribution of Actors according to Sex

The gender distribution of the value chain main actors in Table 4 were 52.2% male and 47.8% female. This shows that the broiler value chain in the Southwest was dominated by the male which is in line with the report of Awoyomi (2021) who reported that broiler value chain in the Southwest was dominated by male (54.4%) and female (45.6%). Also, this result is not far from the report of Ejike, Osuji, Effiong and Agu (2018) that in Nigeria, female participation in agricultural value chain involving production, processing, marketing and the right to agricultural production input has increased significantly in recent times. The implication of this result is that broiler value chain offers fair opportunity for both male and female.

Age of Broiler Value Chain Actors

The results in table 4 show that 79.2% of the respondents had their age below 50 years and the mean age was 40 years which aligns with that of Awoyomi (2021), Suleiman *et al* (2017) and Jolaoso (2014). The

implication of this result was that, actors were in their active and productive years which will help them to manage the rigours of various activities they carry out, take risks and adopt innovations across the value chain. Young broiler chicken value chain actors are more likely to also invest more of their time, energy and resources in implementing innovations that could lead to increased income from the various value chain functions (Awoyomi, 2021). In addition, youthful age should position the respondents to be active agricultural business managers (Mgbanya, Eze, Amuta and Igwe, 2019). Therefore, a well-developed broiler value chain may help to reduce youth unemployment in Southwest Nigeria.

Marital Status of the Broiler Value Chain Actors

Results in table 4 show that majority of the actors were married (78.3%) and this is in line with the work of Awoyomi (2021) that more than 50.0% of broiler value chain actors were married. The report is also supported by Jolaoso (2014) that majority of broiler value chain actors were married. The implication of this is that majority of the chain actors have opportunities to get support from their spouses in carrying out broiler value chain activities.

Table 4: Socioeconomic Characteristics (Sex, Age and Marital Status) of Broiler Value Chain Main Actors in Southwest Nigeria

Variables	Producers		Processors		Live Broiler Marketers		Dressed Broiler Marketers		Pooled	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Sex										
Male										
Female	35	31.8	18	45.0	28	70.0	29	72.5	110	47.8
Total	110	100	40	100	40	100	40	100	230	100
Age Mean = 40										
<30	23	20.9	4	10.0	4	10.0	0	0	31	13.5
30-39	36	32.7	15	37.5	13	32.5	4	10.0	68	29.6
40-49	30	27.5	13	32.5	16	40.0	24	60.0	83	36.1
50-59	15	13.6	7	17.5	6	15.0	10	25.0	38	16.5
>60	6	5.5	1	2.5	1	2.5	2	5.0	10	4.3
Total	110	100	40	100	40	100	40	100	230	100
Marital Status										
Single	23	20.9	5	12.5	5	12.5	6	15.0	39	17.0
Married	85	77.3	34	85.0	30	75.0	31	77.5	180	78.3
Divorced	1	0.9	0	0	2	5.0	1	2.5	4	1.7
Widow	1	0.9	0	0	1	2.5	2	5.0	4	1.7
Widower	0	0	1	2.5	2	2.5	0	0	3	1.3
Total	110	100	40	100	40	100	40	100	230	100

Source: Researcher’s computation, 2022.

Educational Level of Broiler Value Chain Actors

The level of education attained by the respondents is presented in Table 5. The results show that 2.2%, 3.9%, 5.6%, 34.8% and 53.5% of the respondents had no formal education, had primary, junior secondary school, secondary and tertiary education respectively. This result aligns with the findings of Awoyomi (2021), Adeyonu (2016) and Gebremedhin (2015) that reported that majority of broiler value chain actors in the Southwest Nigeria are well educated and had tertiary education. This implies that majority of the broiler

value chain actors in the Southwest are highly exposed. In addition, they are well positioned to attract and encourage other graduates to the broiler value chain. Therefore, this will help to address graduates unemployment in Nigeria. Well educated actors are better informed and expected to take good decisions that could lead to increase their profitability.

Years of Business Experience of Broiler Value Chain Actors

The years of business experience of the broiler value chain actors in the study area as presented in table 5 show that 70.9 % of the respondents had experience of less than 10 years. The implication of this outcome is many broiler value chain actors are new in the business. Therefore, there may be a need for them to receive continuous training in broiler value chain. In addition, extension visits to the actors we help to build their capacities in broiler value chain activities and increased profitability as it helps actors in decision making (Awoyomi, 2021).

Membership of Associations of the Broiler Value Chain Actors

Results of membership of the associations for broiler value chain actors in the study area in Table 5 show that only 35.2% of the actors belonged to an association while 64.8% of the actors did not belong to any association. This result aligns with the findings of Awoyomi (2021) that, 76.7%, 70.0% and 62.8% of producers, processors and marketers do not belong to any association in broiler chicken value chain in the Southwest Nigeria. The implication is that these actors have restricted access to socio capital and other important benefits that membership of association could offer. These benefits include; opportunity to save, borrow money, bulk purchase of inputs and sale of farm produce and products amongst others. These associations include cooperative societies, Poultry Association of Nigeria (PAN), marketing associations and others hence, have been found helpful in various value chain activities (Chidiebere-Mark, 2017 and Ilu, 2015).

Household Size of Broiler Value Chain Actors

The result of household size of respondents is presented in Table 5. The result shows that 62.2% of the broiler value chain had household size of between one to five persons, 33.5% had household size of between six to ten persons and 4.3% had household size of between eleven and fifteen persons. Household is a source of labour required to carry out broiler value chain activities. According to Adeoye (2015), an average actor with large household size is a source of cheap labour to carry out various value chain operations such as production, processing and marketing.

Table 5: Socioeconomic Characteristics (Educational Level, Years of Business Experience and Household Size) of Broiler Value Chain Main Actors in Southwest Nigeria

Variables	Producers		Processors		Live Broiler Marketers		Dressed Broiler Marketers		Pooled	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Educational Level										
No Formal	3	2.7	0	0	2	5.0	0	0	5	2.2
Primary	7	6.4	0	0	2	5.0	0	0	9	3.9
Junior Secondary	7	6.4	0	0	2	5.0	4	10.0	13	5.6
Secondary	26	23.6	14	35.0	26	65.0	14	35.0	80	34.8
Tertiary	67	60.9	26	65.0	8	20.0	22	55.0	123	53.5
Total	110	100	40	100	40	100	40	100	230	100
Years of Business Experience Mean = 6										

<10	83	75.5	19	47.5	25	62.5	36	90.0	163	70.9
10 – 19	18	16.4	11	27.5	13	32.5	4	10.0	46	20.0
20 – 29	6	5.5	6	15.0	1	2.5	0	0	13	5.6
30 – 39	3	2.7	4	10.0	1	2.5	0	0	8	3.5
>40	0	0	0	0	0	0	0	0	0	0
Total	110	100	40	100	40	100	40	100	230	100
Household Size Mean = 3										
1 – 5	80	72.7	18	45	20	50	25	62.5	143	62.2
6 – 10	24	21.8	18	45	20	50	15	37.5	77	33.5
11 – 15	6	5.5	4	5	0	0	0	0	10	4.3
Total	110	100	40	100	40	100	40	100	230	100
Membership of Association										
Member	31	28.2	12	30.0	31	77.5	7	17.5	81	35.2
Non-member	79	71.8	28	70.0	9	22.5	33	82.5	149	64.8
Total	110	100	40	100	40	100	40	100	230	100

Source: Researcher’s computation, 2022.

Determinants of Choice of Market Channel by Broiler Value Chain Actors

The result of factors determining choice of market chosen by broiler value chain actors in the Southwest, Nigeria as compared with farm gate is presented in Table 6. Farm gate market was used as “Reference market” or “Base category market” because the stage was common among the respondents (Olufadewa, Obi-Egbedi and Okunmadewa, 2018). Multinomial Logit regression was used to estimate eleven independent variables and shows a log likelihood of -96.68532 and Chi-square value of 136.85, which was significant at 1% level probability. This suggests that the model had strong explanatory power and also indicates that the model had a good fit to the model. The result reveals that out of the eleven variables included in the model, only two variables namely educational level and transportation cost incurred by the respondents significantly influenced the choice of local market outlet as compared to the farm gate option.

Educational level of the respondents was significant at 1% level and had positive relationship which was in consonance with Xaba and Masuku (2013). It had a lower odds ratio of 0.3377 which shows that as educational level increases the likelihood of broiler value chain actors participating in a local market outlet was lower when compared to the farm gate option. The broiler value chain actors would prefer to sell their /products at the farm gate instead of the local market outlet. Transportation Cost of the actors was significant at 10% level and had positive relationship. It had an odds ratio of 1.00209. This implies that as the transportation cost of the respondents increases, they will prefer to sell at the local market which offer competitive and higher prices rather than the farm gate (Olufadewa, Obi-Egbedi and Okunmadewa, 2018; and Xaba and Masuku, 2013).

Determinants of Choice of Urban Market Compared with Farm Gate

Five out of eleven variables significantly influenced the choice of broiler choosing urban market rather than farm gate as presented in Table 6. These variables were age, educational level, years of marketing experience, price and membership of association. Age was significant at 5% and had a positive influence on the choice of urban market outlet option. This result aligns with Kotey, Adams, Nimoh, Mensah, Etuah and Edwin (2021) and Boogard, Bock, Oosting, Niskerke, and Zijpp (2011) in their various studies that age and choice of market had positive relationship. Age odds ratio of 0.95376 suggests that the broiler value chain

actors who were older not likely sell their broilers at the urban market outlet as compared to the farm gate.

Educational level was significant at 5% and had a positive relationship with the choice of urban market outlet. The odds ratio of 0.72308 reveals that the broiler value chain actors had a lower likelihood of selling their output in the urban market outlet as compared to the farm gate. This is contrary to a priori expectation! However, the result aligns with Olufadewa, Obi-Egbedi & Okunmadewa (2018) that smallholder poultry farmers who had more years of formal education will not likely sell their birds at the urban market outlet as compared to the farm gate. Education plays important roles in entrepreneurship. It makes people well informed and understand opportunities that are available one of which is marketing information and benefits of selling in urban markets.

Years of marketing experience in broiler value chain was significant at 10% and had a positive relationship with the choice of urban market outlet. The odds ratio of 1.04835 shows that more years of marketing experience will increase the likelihood of broiler value chain actors in choosing an urban market instead of farm gate option. Therefore, as the years of marketing experience increases. The likelihood of broiler value chain actors selling at urban market rather than farm gate will increase (Kotey, Adams, Nimoh, Mensah, Etuah and Edwin, 2021). Price was significant at 5% and had a positive relationship with the choice of urban market outlet. The odds ratio of 1.00697 implies that increase in price will increase the likelihood of broiler value chain actors choosing an urban market instead of farm gate option. This result aligns with the study of Derebe (2021) that positive relationship exists between selling price and choice of market.

Membership of association was significant at 1% and had a positive relationship with the choice of urban market outlet. The higher odds ratio of 7.94452 implies when broiler value chain actors belong to association the likelihood of them choosing an urban market instead of farm gate option will increase. The reason being one of the benefits of membership of association is group marketing which will help to reduce cost of marketing and hence opportunity to take their output to urban market. Other benefits of membership of association are possible peer influence and access to market information. However, this result disagrees with the finding of Xaba and Masuku (2013) in which he found a negative relationship between farmers' organization and choice of market channel.

Table 6: Determinants of Choice of Market Channel

Variable	Coefficient	Local market Std Error	Odds Ratio (Exp β)	Coefficient	Urban Market Std Error	Odds Ratio (Exp β)
Age	-0.0207	0.1054	0.9795447	-0.0473	0.0241**	0.9537594
Education level	-1.0855	0.4040***	0.3377207	-0.3242	0.1540**	0.7230808
Years of marketing experience	-0.0056	0.1101	0.994416	0.0472	0.0257*	1.048354
Price	0.0018	0.0035	1.001796	0.0069	0.0010***	1.006969
Distance to market	-0.0484	0.1830	0.9527957	-0.0113	0.0550	0.9887954
Mortality rate	-0.0712	0.2011	0.9313199	0.0525	0.0551	1.053954
Transportation cost	0.0021	0.0012*	1.002092	-0.0004	0.0004	0.9996154
Membership of Association	1.2102	2.0091	3.354022	2.0725	0.5093***	7.944518
Stock size	0.0015	0.0054	1.001479	-0.0001	0.0009	0.9999183
Contractual agreement	0.1625	1.9258	1.176487	0.2128	0.4255	1.237183

Seasonality of activity	-17.4809	1786.1500	2.56E-08	-15.5434	2459.2140	1.78E-07
Constant	-3.0390	5.6063	0.0478849	-8.8780	1.9192	0.0001394

***, ** and * represent significant at 1%, 5% and 10% respectively

Number of obs = 229

LR chi2(22) = 136.85

Prob > chi2 = 0.0000

Log likelihood = -96.68532

Pseudo R² = 0.41

Source: researcher's Computed, 2022

CONCLUSION AND RECOMMENDATIONS

The study concluded that majority of the broiler value chain main actors in the Southwest operated small-scale poultry enterprises and had their ages below 50 years. Also, majority of the actors had tertiary education and years of business experience below 10 years. It concludes that preference of actors for local market over farm gate market was influenced by transportation cost. However, preference of the respondents for urban market over farm gate market were influenced by years of marketing experience, price of broiler chickens and membership of association. The study recommends that broiler value chain actors are still new in the enterprise and therefore, entrepreneurial trainings should be organized for them by various government agencies and NGOs. Since majority of the actors were youths, government at all levels should create enabling environment by creating broiler value chain clusters to attract more youths into the value chain activities. In addition, extension services and NGOs should mobilize actors to associations to promote sales of their produce outside farm gate.

REFERENCES

1. Adeoye I. B. (2015). Value Chain and Competitiveness of Plantain in Southwestern Nigeria. Unpublished PhD Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of PhD in Agricultural Economics in the Department of Agricultural Economics, Faculty of Agriculture and Forestry, University of Ibadan, Nigeria.
2. Agboola, S. A. (1979). An Agricultural Atlas of Nigeria, Oxford University Press, Nigeria.P. 248 in Faleyimu O. I., Agbeja B. O. and Akinyemi O. (2013): State of forest regeneration in Southwest Nigeria. African Journal of Agricultural Research Vol. 8(26), 3381- 3383
3. Afutu, M. (2011). Analysis of the Broiler Value Chain and the Possibility of Introduction of Market Oriented Chain Development Strategies to Improve Income for Farmers: A Case Study of the Greater Accra Region of Ghana. Unpublished MSc Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of MSc in Agricultural Production Chain Management Specializing in Livestock Chains, Van Hall Larenstein University of Applied Science, the Netherland.
4. Awoyomi F. S. O. (2021): Competitiveness of Broiler Chicken Value Chain in Southwestern Nigeria. Unpublished PhD Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of PhD in Agricultural Economics in the Department of Agricultural Economics, Faculty of Agriculture and Forestry, University of Ibadan, Nigeria.
5. Boogard, B.K., Bock, B.B., Oosting, S.J., Niskerke, J.S.C. and van der Zijpp, A.J. (2011), "Social

- acceptance of dairy farming: the ambivalence between the two faces of modernity”, *Journal of Agricultural Environmental Ethics*, Vol. 24 No. 3, pp. 259-282.
6. Central Bank of Nigeria (CBN) (2004). CBN Statistical Bulletin, CBN Publication
 7. Central Bank of Nigeria (CBN) Report 2018
 8. Central Bank of Nigeria (2019). CBN vows to end 1.2m metric tons frozen poultry importation.
 9. Chidiebere-Mark, N. M. (2017) Analysis of Value Chain In Rice Production Systems in Ebonyi State, Nigeria. Unpublished PhD Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of PhD in Agricultural Economics, the Post Graduate School, Federal University of Technology, Owerri
 10. Derebe Ermias (2021) Econometric analysis of factors affecting market outlet choice of mango fruit producers in Hadero Tunto Zuriya District, Southern Ethiopia, *Cogent Food & Agriculture*, 7:1, 1891660, DOI: 10.1080/23311932.2021.1891660. (Accessed January 2023)
 11. Ehinmowo A. A. and Ibitoye, A. O. (2010). Periodic market, a common marketing feature in AkokoSouthwest. *Journal of Geography and Regional Planning* Vol. 3(12), pp. 361-364. online at <http://www.academicjournals.org/JGRP>
 12. FAO Statistics (2020, February 2020) FAO Livestock and Animal Production Statistics (2008 – 2018). fao.org
 13. Foundation for Partnership Initiatives in the Niger Delta (PIND) (2013). Catering Services and the Poultry Industry Value Chain in the Niger Delta
 14. Hassan, A. A., Ahmadu, H. J., Oseni, Y., Dawang, N. C., Rahman, S. A., & Abdulsalam, Z. (2016). Economic Analysis of Poultry Egg Enterprise in Kaduna State, *Nigeria Journal of Animal Production*. 28(1):196-204
 15. Jolaosho, Surajudeen Olawale. 2014. Valuation of Negative Externality and Profitability of Poultry Production in Ogun State. An M.Sc Thesis submitted to the Department of Agricultural Economics and Farm Management, Federal University of Agriculture, Abeokuta.
 16. Kotey M. A., Adams F., Nimoh F., Mensah J. O., Etuah S., Edwin C. (2021) Choice of marketing outlets among smallholder cowpea farmers. *Management and Sustainable Development*. Vol. 17 No. 3, 202. pp. 441-456. <https://www.emerald.com/insight/2042-5961.htm> (Accessed January, 2023)
 17. MbaSKOOL (2014) <https://www.mbaskool.com/business-concepts/marketing-and-strategy-terms/11003-local-market>. . (Accessed February 8, 2023)
 18. National Bureau of Statistics (NBS) (2017). Demographic Statistics Bulletin.
 19. National Bureau of Statistics (NBS) (2020). Demographic Statistics Bulletin.
 20. National Chicken Council (NCC) (2015). What are broiler birds? ‘Farm to Table’ publication of the National Chicken Council, Washington D. C. USA
 21. National Veterinary Research Institute (nvri) (2015). Nigeria Has 180 Million Birds, Needs No Poultry Imports.
 22. Nigeria Custom Services (2015, accessed October 2019). Prohibition List <https://customs.gov.ng/?paged=7&cat=15> (Accessed November 2019)
 23. Olufadewa M. S., Obi-Egbedi O., and Okunmadewa F. Y. (2018). Determinants of Choice of Market Outlet Among Smallholder Poultry Farmers in Oyo State, Nigeria. *Alanya Academic Review Journal*. Vol.:2, No: 2, s.177-193
 24. Oluwatosin, F. M. & Ojo, O. S. (2018). ICT-Based Market Information Services Utilization by Small scale Farmers in Southwest Nigeria.
 25. Sigei G. K (2014). Determinants of Market Participation Among Small-Scale Pineapple Farmers in Kericho County, KENYA. Unpublished MSc Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of MSc in Agricultural and Applied Economics of Egerton University.
 26. Suleiman, R., Mahmud, A. M., Oladimeji, Y.U., Olanrewaju, T.O., Ojeleye.O. A. 2017. Effects of Socio-Economic Characteristics on the Profitability of Poultry Production Among Poultry Farmers in Kaduna State. *Proceedings of the Annual Conference of the Agricultural Extension Society of Nigeria*. 22(1): 83–87
 27. Tola, M., (2014): Tomato Value Chain Analysis in the Central Rift Valley: The Case of Dugda

Woreda, East Shoa Zone, Oromia National Region State, Ethiopia. Unpublished MSc Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of MSc in Agricultural Economics, College of Agriculture and Environmental Science, School of Agricultural Economics and Agribusiness, School of Graduate Studies Haramaya University, Ethiopia

28. United Nations Industrial Development Organization (UNIDO) (2009). Agricultural Value Chain Analysis and Development: the UNIDO approach, A staff working paper, Vienna. 74pp
29. United States Department of Agriculture (USDA) (2013). International Egg and Poultry Report Unpublished working paper.
30. Xaba B. G. and Masuku M. B. (2013). Factors Affecting the Choice of Marketing Channel by Vegetable Farmers in Swaziland. Sustainable Agriculture Research; Vol. 2, No 1