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### ORIGINAL ARTICLE

## IMPACT OF HOUSEHOLDS' ATTITUDE TOWARDS BACKYARD LIVESTOCK FARMING: A PARADIGM SHIFT TO UP-SCALING RESIDENTS' INCOME IN ABUJA, NIGERIA

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### Abstract

*The study examined impact of households' attitude towards backyard livestock farming to scaleup income among Abuja residents. A three-staged random sampling technique to elicit information. Data were analysed using descriptive statistics, Ordered logit regression model and Binomial test statistics. Results revealed that most of the respondents were female (76.51%), married (56.63%), with secondary educational level (51.81%) and were into full-time backyard livestock farming (71.69%). The average age, household size and farming experience were 43.01 years, 7 people and 10.14 years respectively. . Reasons for carrying out the farming include several important benefits like provision of food, meat and improvement of socio-economic status it offers to the people involved. Meanwhile, the farming practice was quite profitable to the people, producing an average income of ₦211,596.71. Additionally, majority of the respondents (82.53%) indicated favourable attitude to backyard livestock farming. Several strategies like: provision of credit to farmers (93.37%), provision of adequate supply of production incentives (70.48%) and provision of incentives by government (69.88%) were suitable for livestock farming in the area. Socio-economic variables such as gender ( $b = 117.041$ ), age ( $b = -110.784$ ), marital status ( $b = 18.812$ ), level of education ( $b = 133.009$  and farming experience ( $b = 8.197$ ) were found to be significant to income earned from backyard livestock farming. Therefore, there is a need for residents in the study area to be provided with the necessary credit that can help to stabilize them in the farming practice.*

**Keywords:** livestock, farmers income, attitude, backyard, strategies, farm practice

### Introduction

Livestock refers to animals that are domesticated by the populace primarily for food. They can also be referred to as "food animal". In Nigeria in particular, the common livestock animals are poultry birds (chicken, turkey, quail, duck etc.), cattle, sheep, goats, pigs, rabbits, donkeys, camels and horses. Out of them all, the most commonly reared ones are chickens, cattle, goats and sheep (FMARD, 2017). FMARD (2017). It was reported that of the different type and number of livestock produced in Nigeria, majority of them are raised in free-range which comprise of smallholders and nomadic holders. The economy has proven that most families cannot afford the escalating cost of beef without breaking a sweat and this calls for alternative cheap sources of meat in the human diet and this should be easy to manage (Achoja and Obodaya, 2019). It was stressed that these alternative sources include fish farming, poultry farming, pig farming, etc. Most of our animals are reared in farms and this system has not been sufficiently meeting the demand, hence the call for backyard livestock production.

In ordinary parlance, backyard livestock production simply means the rearing of animals at the back of our houses. Ovharhe *et al.*, (2020) explained backyard farming as a type of farming located around the homestead for the production of varieties of crops and breeds livestock for consumption, food security and income generation. Backyard farming is usually a common practice through which food availability and food security is being achieved to some extent. Backyard farming has been able to perform several

functions that have influenced the socioeconomic status of an individual and the nation's development (Oke, 2014). It was conceived that backyard farming is a form of micro-enterprise which is a source of revenue for the unemployed, a supplemental income for the low-income boosters for the high-income earners. Economic impact of livestock production include; employment generation, food provision, raw materials for industry, games, entertainment, income generation, increases savings, investment and foreign exchange earnings (Ovharhe, *et al.*, 2020). Confirming the role of backyard farming, Achoja and Obodaya (2019) stated that backyard farming has the potential to improve household's cash economy and sustainability of the micro environment. Marston *et al.* (2019) identified several factors especially households' attitude as an important factor that must not be ignored if the success of farm activities like backyard livestock farming is a watch ward.

The attitude of residents on backyard livestock farming is their settled way of thinking or feeling about the rearing of livestock at their backyard. Redfern and Robinson (2021) stated that an attitude is that which is produced by emotional and behavioural beliefs and that it is an intrinsic frame of mind affecting one's thoughts or behaviour. Marston *et al.* (2019) stressed that residents' attitude is key to be taken into consideration in order to make good level of success in the backyard livestock farming. Okwuokenye and Ikoyo-Eweto (2016) explained that due to the fact that Nigeria is a developing nation where majority of the people live below the average poverty level, the common man finds it difficult to afford conventional sources of protein, mineral salts, vitamins and other essential nutrients needed by the body.

The recognition of this fact calls for cheaper and readily available alternative sources of protein and the other nutrients, hence the advocacy of backyard livestock farming. Despite the fact that backyard livestock farming is known to supplement livestock production in our immediate environment, the appraisal of backyard livestock farming as cheap alternative source of protein, and income as well as concerted effort of rural household attitude towards backyard livestock production are not widely reported, hence the need to assess the impact of household attitude towards backyard livestock production. The study was therefore carried out to: determine the socio-economic characteristics of the respondents of the study, identify the importance of backyard livestock farming and the income generating capacity of the livestock farming to the farmers, analyse the attitude of respondents towards engaging in backyard livestock farming, and; identify strategies for improving the practice and products of backyard livestock farming in the area

### **Hypotheses of the study**

Hoi: Socio-economic characteristics of the respondents have not significantly impacted on income realized from backyard livestock farming.

Hoi: There is no significant difference in proportion of respondents with favourable and unfavourable attitude to backyard livestock farming.

### **Methodology Area of the study**

The study was carried out in Federal Capital Territory (FCT), Abuja. Though FCT was established in 1976, it became operational in 1991. It is the Capital seat of Nigeria and it occupies a land area of 8000 Km<sup>2</sup>, located in the savannah region with an a population size of 1.406,239 as at 2006 census (NBS, 2022). The FCT lies between Latitude and Longitude 9.07° N and 7.339°E respectively (FCT, Wikipedia 2016). Okwuokenye *et al.* (2022) stated that the soil in the area is made up of parent materials that are coarse sandy loam in the basement complex to silt clay in nature and that most of the inhabitants are into civil service jobs while others are into farming of crops like rice, maize, guinea corn and yam. While those into animal rearing are engaged in cattle, goat, sheep and poultry rearing. The area's temperature could be as high as 37°C and above and this occurs between March and May. The temperature can sometimes drop to 15°C during the cold season and this is usually between July and August. The period of rainfall is between April – October and its average is 1,632mm. FCT has a guinea savannah forest with shrubs growing inbetween. The area is also endowed with many mineral deposit like clay, feldspar, tin, gold, iron, ore, etc.

### Sampling technique of the study

The study's population was made up of backyard livestock farmers that were operating in the FCT, Abuja.

The study was carried out using a multi-stage random sampling technique to sample the respondents. Stage 1 involved the random selection of Bwari and Kuje Area Councils of the Federal Capital Territory. This was followed by stage 2 which involved the random selection of 3 towns in each of the area councils. This made it 6 towns that were used for the study. The towns randomly selected from Bwari area council were Chikale, Barago and Bazango Bwari. While those ones randomly selected from Kuje area councils were Damwa, Aduga and Bamishi. Stage 3 involved the random selection of households that were identified as rearing livestock in their neighbourhood or backyard. Thirty households were randomly selected from each town, resulting in a total of one hundred and eighty households used for the study. They were given a questionnaire or an interview schedule, depending on whether the respondents were literate or illiterate, respectively. Efforts were made to confirm that the respondents were indeed keeping some form of farm animals. Out of the returned survey instruments, one hundred and sixty-six were deemed suitable for analysis.

### Sources of data

The data were sourced from both primary and secondary sources. Primary data were collected directly from backyard livestock farmers, while secondary data were gathered from various documented sources including conference proceedings, textbooks, published research findings, research materials, and journal articles. Data collection was done by the researcher with support from trained enumerators.

### Data analytical techniques

Data were analyzed with the use of descriptive and inferential statistics. Descriptive such as percentages and means. Descriptive statistic was used to analyze the socio-economic characteristics of the study, identify the improved livestock types adopted and attitudes of the respondents. The importance of backyard livestock farming and strategies for improving backyard livestock farming was analysed on a 4-point Likert scale. In analysing the importance, the scale ranged from major importance, moderate importance, minor importance and insignificant importance. Responses that were 50% or more, indicates that such importance were major importance provided by backyard livestock farming. On the other hand, responses lower than 50%, suggests the factor under consideration were not major importance of the farming practice. In the consideration of strategies for improving backyard livestock farming, they were ranked as strongly agreed, agreed, disagreed and strongly disagreed. Responses value of 50% or more indicates that the strategy was a strongly agreed one to improve backyard livestock farming. Strategies with responses less than 50% were considered insignificant.

On the other hand, inferential statistics was used to analysis the hypotheses of the study. Inferential statistics involved the use of ordered logit regression model and Binomial test- statistics. They were respectively used to analyse hypotheses one and two. The Ordered logit regression model was used in analysing the influence of socio-economic characteristics on annual income earned from backyard livestock farming. The equation of the model is expressed implicitly as follows:

$$Y = \beta_i X_i + e$$

Where:

Y = is the unobserved measure of the impact of socio-economic characteristics (independent variables) on annual farm income earned from backyard livestock farming (dependent variable).  $X_i$  = the independent variables ( $i = 1, 2, 3, \dots, n$ )  $\beta_i$  = the vector of regression coefficient to be estimated.

$e$  = the error effect

Explicitly, the model is expressed as;

(Bi) = Vector of logistic respect coefficients

(Xi) = Vector of independent variables given as follows:

(Y) = Income (₦) earned from backyard livestock farming

(High  $\geq$  ₦200,000 = 1; low < ₦200,000 = 0)

(X<sub>1</sub>) = Gender (Male =1, Female = 0)

(X<sub>2</sub>) = Age of the farmer (in years)

(X<sub>3</sub>) = Marital status (Single = 1; married = 2; divorced = 3 and widow(er) = 4)

(X<sub>4</sub>) = Level of education (years spent in school)

(X<sub>5</sub>) = Households size (Number of people eating and feeding together in same house)

(X<sub>6</sub>) = Farming experience (years)

(X<sub>7</sub>) = Farm size (measured in hectares)

(X<sub>8</sub>) = Farming status (full-time = 1; part-time = 0)

Binomial test statistics were used to determine the significant difference in the proportion of respondents' favourable and unfavourable attitude to backyard livestock farming. The formula for binomial distribution is given as follows:

$$b(x;n,p) = nCx * p^x * (1-p)^{n-x} \text{ ----- eq. 3}$$

Where: b = binomial probability; x = total number of successes (favourable and unfavourable attitude); p = probability of success on an individual trial; n = number of trials

#### Results and Discussion Respondents' Socio-economic characteristics of respondents

The socio-economic characteristics of the respondents is shown in Table 1. Results revealed that most (76.51%) of the respondents were females while the other fraction were males. The result shows that backyard livestock farming is mainly engaged in by females. The dominance of female in this farming practice may be ascribed to using the activity to generating income to the house as their source of economic contribution to household welfare. This result agreed with the findings of Okwuokenye and Ovharhe (2019) which stated that women are more into backyard farming business. The marital status of the respondents revealed that majority (50.63%) of them were married. The dominance of married farmers in backyard livestock farming indicated that they are not only responsible but also use the produce to meeting protein needs of the family in addition to using income earned to cater for family needs. The result is similar to findings of Okwuokenye and Ovharhe (2019) which expressed the dominance of married residents in backyard livestock farming.

The average age of the farmers was 43.01 years with majority (43.98%) of them belonging to the age bracket of 40 – 49 years. The result implies that the respondents are in their active age, strong and fit to carry out backyard farming exercise very well. Having majority of them within their active age group is an indication that they are favourably disposed for the exercise and be able to come out with good level of output. The result favourably agreed with that of Saleh *et al.* (2015) who reported that majority of respondents who participated in backyard poultry, a subsidiary of backyard livestock farming to be of ages below 50 years. The findings of this study were also in line with the results of Win *et al.* (2018). The educational level of the farmers revealed that most of the farmers (51.81%) have secondary school certificate. It could be inferred that a good proportion of the respondents were literates which makes it possible to be able to read and write thus made them to be favourably disposed to improved farm skills that

could improve their backyard livestock farming practice. Favourably agreeing with this result is that of Abanigbe *et al.* (2018) who asserted that most of the participants of backyard poultry livestock farming are people who completed their secondary education. Average household size of the respondents was about 7 persons with most (45.78%) of them having between 4 and 6 persons as their household size. The result implies that the respondents have large household size, with members who can be used as a source of family labour in the backyard livestock farming and to a large extent reducing expenses of the farm while increasing farm income. This result is in tandem with that of Onyemekihian *et al.* (2023) who acknowledged the average number of persons in respondents' household of same area was 6 persons with majority of them having between 4 and 6 persons as household size.

Most of the farmers (40.96%) had between 9 and 12 years farming experience with the average being 10.14 years. The result implies that respondents experience in backyard livestock farming shows that the farmers are experienced in the practice of backyard livestock farming. Having such years of experience is sufficient for the farmers to be able to overcome most of the challenges involved in the process. The findings of this result correspond with Onyemekihian *et al.* (2023) on poultry farming experience in the same area. The result also indicated that most of the respondents (71.69%) were into full-time backyard livestock farming while only about 28.31% were into part-time farming. Having most of them into full-time farming implies that backyard livestock farming may be a source of employment or engagement to them and the proceeds could be used to meet their family needs. The result further revealed that most of the farmers (71.69%) were into full-time backyard farming business. The reason may be in line with the fact that most of them were unemployed hence the need to fully engage in backyard livestock farming as an alternative source of livelihood and income.

### **Importance of backyard livestock farming**

Several factors were advanced as importance of practicing backyard livestock farming (see Table 2). These factors were arranged in the order of their level of importance to the farmers and they include: source of income to the family (90.96%), source of food and animal protein source to the family (87.95%), source of savings from sales of livestock (72.89%) and improving the socioeconomic characteristics of the farmers (65.66%). These factors were respectively ranked 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> major importance of keeping livestock in their backyard. Other major importance of backyard livestock farming which ranked 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> included the fact the practice: gives sense of responsibility, ownership and engagement (62.05%), source of livelihood (51.81%), promote physical activity and exercise (50%) and source of manure for crop production (50%). Results on income provision, food provision, provision of organic manure and livelihood agreed with the findings of Oyelami *et al.* (2022) who concluded that backyard livestock farming was initiated as a source of income, food, household savings, livelihood and farm manure.

### **Income level realized from backyard livestock farming**

Table 3 shows the annual income earned by the residents/farmers that are engaged in backyard livestock farming. The result revealed that majority (40.36%) earned an annual income of between ₦200,000 - ₦299,000 from engaging in backyard livestock farming. About 45.18% and 14.46% of the respondents earned less than ₦200,000 and more than ₦299,000 respectively. The average income realized was ₦211,596.71 and that implied that residents' engagement in backyard livestock farming is a profitable venture. The practice affords the residents' the opportunity to save money otherwise would have been used to purchase meat and other protein sources and in addition creates a market for them to sell the ones they want to. This result is in agreement with that of Achoja and Obodaya (2019) which stressed that backyard farming provides an alternative source of livelihood through which income can be earned and household's cash economy can be enhanced.

**Table 1: Socio-economic characteristics of respondents.**

Category	Characteristics	Freq.	Percentage	Mean	
Gender	Male	39	23.49	43.01	
	Female	127	76.51		
Marital Status	Single	18	10.84		
	Married	94	56.63		
	Divorced	21	12.65		
	Widow(er)	33	19.88		
Age (years)	< 30	15	9.04		
	30 – 39	47	28.31		
	40 – 49	73	43.98		
	50 – 59	18	10.84		
	60 & above	13	7.83		
Educational Status	No formal educ.	11	6.63		
	Primary educ.	32	19.28		
	Secondary educ.	86	51.81		
House hold size	1 _ 3	22	13.25		
		76	45.78		
		29	17.47		
		30	18.07		
		9	5.42		
		17	10.24		
		31	18.67		
		68	40.96		
		50	30.12		
		119	71.69		
		Part-time	47		28.31
		Source: Field survey, 2024; N = 166			
	Farming Status	Post -secondary educ.	37	22.29	
4 – 6					
7 – 9					
10 – 12					
≥ 12		6.64 = 7			
Farming exp. (years) 1 – 4					
5 – 8					
9 – 12					
13 & above			10.14		
Full-time					

Table 2: Importance of practicing backyard livestock farming

Importance of backyard livestock farming	Insignificant importance	Minor importance	Moderate importance	Major importance	Ranking
Source of income to the family	0 (%)	0 (%)	15 (9.04%)	151 (90.96%)	1 <sup>st</sup>
Source of food and animal protein source to the family	0 (%)	2 (1.20%)	18 (10.84%)	146 (87.95%)	2 <sup>nd</sup>
Source of savings from sales of livestock	6 (3.61%)	11 (6.63%)	28 (16.87%)	121 (72.89%)	3 <sup>rd</sup>
- Improving the socioeconomic status of the farmers	7 (4.22%)	19 (11.45%)	31 (18.67%)	109 (65.66%)	4 <sup>th</sup>
Gives sense of responsibility, ownership and engagement	12 (7.23%)	21 (12.65%)	30 (18.07%)	103 (62.05%)	5 <sup>th</sup>
- Source of livelihood	25 (15.06%)	24 (14.46%)	31 (18.67%)	86 (51.81%)	6 <sup>th</sup>
Promote physical activity and exercise	24 (14.46%)	26 (15.66%)	33 (19.88%)	83 (50.00%)	7 <sup>th</sup>
- Source of manure to crop farming	33 (19.88%)	29 (17.47%)	21 (12.65%)	3 (50.00%)	7 <sup>th</sup>
- Source of entertainment	65 (39.16%)	62 (37.35%)	27 (16.27%)	12 (7.23%)	9 <sup>th</sup>

Major importance  $\geq 50\%$ ; Source:  
Field survey, 2024

Table 3: Level of income realized from backyard livestock farming per annum.

Income range (₦)	Frequency	Percentage	Mean (₦)
50,000 – 99,000	29	17.47	
100,000 - 199,000	46	27.71	
200,000 - 299,000	67	40.36	
300,000 - 399,000	15	9.04	
> 400,000	9	5.42	211,596.71

Source: Field Survey, 2024; N = 166

### Respondents attitude to backyard livestock farming

The attitude of respondents to practicing backyard livestock farming is presented in Table 4 and the result shows that majority (82.53%) of the residents showed favourable attitude to backyard livestock farming. The favourable attitude showed is perhaps related to the various importance that are attached and the benefits like: having it as a source of income, source of livelihood, provision of food and animal protein source to many, among others they derived from the farming practice. This result corroborates the assertion of Oke (2014) which stated that residents engaged in backyard farming are willing to continue due to double purpose of household consumption and sales of surplus the farming system offers to households.

**Table 4: Categorization of the respondents on their attitude to backyard livestock farming**

Attitude level to backyard livestock farming	Frequency	Percentage
Favourable attitude	137	82.53
Unfavourable attitude	22	13.25
Undecided	7	4.22
Total	166	100.00

Source: Field Survey, 2024

### Strategies of improving backyard livestock farming

The strategies that could be implemented for the improvement of backyard livestock farming is shown in Table 5. The strategies were arranged in the order of their magnitude in percentage. According to the results, some of the strongly agreed strategies include: provision of credit to farmers (93.37%), provision of adequate supply of production incentives (70.48%), provision of incentives by government (69.88%) and provision of extension services (72.05%). The other strategies include: training of farmers on pest and disease management (59.64%), farm inputs should be subsidized by the government (59.64%), Create access on how to get improved breeds of animals (51.20%) and enterprise diversification/integrated farming system (50%). Agreeing with some of the strategies, Ovharhe *et al.* (2020) recommended strategies involving adequate fund, pest and disease control, access to extension services and improving on the provision of farm inputs as ways through which backyard livestock farming can be improved.

**Table 5: Strategies on improvement of backyard livestock farming**

Strategies of improvement	Strongly disagree	Disagree	Agree	Strongly agree	Remark
Provision of credit to farmers	0 (%)	0 (%)	11 (6.63%)	155 (93.37%)	<b>Agreed</b>
Provision of adequate supply of production incentives	4 (2.41%)	13 (7.83%)	32 (19.28%)	117 (70.48%)	<b>Agreed</b>
Provision of incentives by government	4 (2.41%)	11 (6.63%)	35 (21.09%)	116 (69.88%)	<b>Agreed</b>
Provision of extension services	4 (2.41%)	31 (18.67%)	28 (16.87%)	111 (72.05%)	<b>Agreed</b>
Training of farmers on pest and disease management	5 (3.01%)	28 (16.87%)	34 (20.48%)	99 (59.64%)	<b>Agreed</b>
Farm inputs should be subsidized by the government	17 (10.24%)	22 (13.25%)	28 (16.87%)	99 (59.64%)	<b>Agreed</b>



Create access on how to breeds of animals	22 (13.25%)	40 (24.10%)	24 (14.46%)	get improved	85 (51.20%)	<b>Agreed</b>
Enterprise farming system	21 (12.65%)	26 (15.66%)	36 (21.69%)	diversification/integrated	83 (50.00%)	<b>Agreed</b>
- Animal feed formulation	49 (29.52%)	56 (33.73%)	41 (24.70%)		20 (12.05%)	<b>Disagreed</b>
Effective marketing	70 (42.17%)	51 (30.72%)	33 (19.88%)	system	12 (7.23%)	<b>Disagreed</b>

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*Agreed = Mean  $\geq$  2.50*

*Source: Field Survey, 2024*

### **Impact of socio-economic characteristics of the respondents on income realized from backyard livestock farming**

The socio-economic characteristics of the respondents were analysed determine the factors responsible for influencing the impacts of income earned from backyard livestock farming. It was shown that from the Ordered logit model, the Chi-squared value of 68.73 was highly significant likelihood ratio statistics ( $p < 0.01$ ). This ratio indicates a large variation in the impacts of socioeconomic characteristics on income earned from backyard livestock farming. The model's pseudo  $R^2$  was 0.691 while the  $R^2$  was 0.653 thus indicating that the independent variables (socioeconomic characteristics) contributed 65.3% variation in the impacts of socio-economic characteristics on income earned from backyard livestock farming. The result in Table 6 shows that out of the eight variables analysed, five of them were found significant to income earned from backyard livestock farming. The five variables are: gender, age, marital status, level of education and farming experience. The other two variables were household size, farm size and farming status were not significant predictors of income earned.

The income earned from backyard livestock farming was significant and positively influenced by gender of the respondents. The gender composition was majorly (76.51%) made of females. The result shows that the beta coefficient was 117.041 with standard error (SE) of 3.24. This implies that having more females in backyard livestock farming will result to higher farm income. The scenario may possibly be adduced to the fact that women are mostly left behind at home, hence their favourable disposition to engage more in the practice and earn more than their male counterparts. This finding aligned with previous studies that confirmed gender (Zick *et al.*, 2013) is a significant determinant of income earned from backyard livestock farming. Age of the respondents was negatively signed and significant to income generated from backyard livestock farming. The coefficient and SE were -110.784 and -11.07 respectively. The result implies that livestock farming will yield more income when younger respondents engage in it. The young are willing to take more risks and try new technologies than their older counterparts and through the process make more breakthroughs that could earn them more income. The odd ratio shows that for every one unit reduction in age, there is likely to be an increase in income by 3.23 times. The result is contrary to previous studies (Ngahdiman *et al.*, 2017) that found older respondents engaging more in urban agriculture and thus likely earning more income than their younger counterparts. The beta coefficient of marital status was 18.812 while the SE was 4.935. It was positively signed and significant to income earned from backyard livestock farming. The marital status majorly (56.63%) was made of married respondents which implies that they are likely to have household family labour that could help to improve farm work and therefore earned more farm income. The odd ratio (2.14) implies that one unit increase in participation of married respondents in backyard livestock farming will result to about 2 times the income earned from backyard livestock

farming. Study of Adeosun *et al.* (2020) contradicted this result who found negative relationship between marital status and respondents' participation in backyard gardening. Respondents' level of education was positively signed and significant to income earned from backyard livestock farming. The beta coefficient and SE were 133.009 and 5.433 respectively. By implication, respondents with higher level of education are expected to earn more income from backyard livestock farming. Higher educational level predisposes the people to understand and apply better agricultural skills that could be used to do better farming and earn higher income. Additionally, a unit increase in educational level of respondents will bring about a proportionate increase of 2.99 times income earned from backyard livestock farming. This result corroborated with Ngahdima *et al.* (2017) who found that more educated respondents have more intention to practice urban agriculture which operates around their houses than respondents with lower educational level. The respondents' farming experience was positively signed and significant to backyard livestock farming ( $b = 8.197$ ;  $SE = 3.221$ ). The result implies that respondents that are more experienced in the farming practice are bound to earn higher income from the farming activities. It is expected that having more experience would have afforded the respondents the opportunity to overcome farm challenges that would have reduced income earned. The odd ratio was found to be 1.821 implying that a unit increase in years of experience will yield an income of 1.821 times better than its previous amount. This result justifies previous studies of Adeosun *et al.* (2020) that established positive relationship between years of experience and backyard livestock farming.

**Table 6: Relationship of socio-economic characteristics of the respondents and income realized from backyard livestock farming**

Variables	B-Coefficient	Standard Error (SE)	P-value (0.05)	Odd ratio
Constant	264.538	12.362		
Gender	117.041*	3.24	1.07	0.004
Age	-110.784*	-11.07	3.23	0.000
Marital status	18.812*	4.935	2.14	0.002
Level of education	133.009*	5.433	2.99	0.006
Household size	1.704	1.172	1.32	1.025
Farming experience	8.197*	3.221	1.821	0.117
Farm size	4.293	2.215	0.873	0.071
Farming status	12.182	6.961	1.001	0.117
pseudo-R <sup>2</sup> =	0.691			
Adjusted R <sup>2</sup>	0.6530			
*P≤0.05 Probability	0.000			
Obsevation	166			

Source: Field survey, 2024

### Respondents on their attitude to backyard livestock farming

Table 7 provides information about the attitudes of farmers towards background livestock farming. The attitude level was expressed in hypothesis 2 as: there is no significant difference in proportion of respondents with favourable and unfavourable attitude to backyard livestock farming. The hypothesis was analysed using Binomial test and it employed propensity score matching method. The outcome of residents

engaged in backyard livestock farming is the residents' attitude to the farming practice. The result revealed that majority (83.7%) of the respondents expressed a favourable attitude towards backyard livestock farming. on the other hand, the smaller fraction (16.3%) of the respondents showcased unfavourable attitude towards the farming system. The result however indicates that backyard livestock farming has been beneficial in one way or the other to the respondents. Such beneficial indicators were expressed as in terms of income provision, food provision, meat and other protein source provision, amongst others.

Statistically, the test proportion was 0.05 (50%). This is the proportion being tested against the observed proportion to determine if there was a significant difference between respondents with favourably attitude and those without unfavourable attitude towards backyard livestock farming. The p-value of 0.000, which is highly significant (usually, a p-value less than 0.05 is considered significant at 1% level). This indicates that the observed proportion of respondents with favourable attitude is significantly different from the test proportion of 0.05. Against this background, the alternative hypothesis was adopted while the null was rejected. The result was underscored by the assertion of Oke (2014) that residents practicing backyard livestock farming show willingness to continue the practice due to the dual role of providing food for households' consumption and provision of income which is used to satisfy households needs.

#### Categorization of the respondents on their attitude to backyard livestock farming

Variables	Category	N	Observed Proportion	Test proportion	Prob. level
Attitude farmers of backyard livestock farming to	Favourable attitude (score: >20)	139	0.837	0.50	0.000
	Unfavourable attitude (score: 20 & below)	27	0.163		
	Total	166	100.00		

Source: Field Survey, 2024

#### Conclusion and Recommendations

Backyard livestock farming proved to be of major importance to the respondents as it provides them with source of food, meat, livelihood and improving the socio-economic status of the people. The farming practice also help to provide the respondents with income to the tune of an average of ₦211,596.71, thus confirming it as a source of good source of income. The residents have a favourable attitude to backyard farming and this is perhaps in line with the various importance it provided. The farming practice can be improved through provision of credits to the residents, supplying them with inputs, provision of incentives, provision of extension services and training of the people. Backyard livestock farming can however be influenced by socio-economic factors such as gender, marital status, age, educational level and farming experience.

**Consequently**, here is a need for residents in the farming practice to be provided with the necessary credit that can help to stabilize them in the farming practice. Such funds can even make them (if provided) to expand their scope of farming and therefore earn more income for the practitioners.

The residents also need to be provided with farming inputs with which they can do their farming. This may be coming from the availability of lack of improved inputs for them to use do their farming, and;

Extension agents' services also need to be made available to the residents so that they can be furnished with the necessary training and skill that can help them to improve on the backyard livestock farming.

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