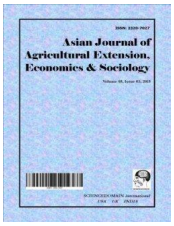

Asian Journal of Agricultural Extension, Economics & Sociology
7(2): 1-8, 2015; Article no.AJAEES.19060
ISSN: 2320-7027

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Livestock Farming for Employment Generation in Etche Local Government Area of Rivers State, Nigeria

F. E. Nlerum[1*] and O. J. Owen[2]

[1]Department of Agricultural and Applied Economics/Extension, Rivers State University of Science and Technology, P.M.B. 5080, Port Harcourt, Nigeria.
[2]Department of Animal Science, Rivers State University of Science and Technology, P.M.B. 5080, Port Harcourt, Nigeria.

Authors' contributions

This work was carried out in collaboration between the both authors. Author FEN designed the study. Authors FEN and OJO wrote the protocol while author FEN supervised the work. Author FEN supervised field survey works and performed the statistical analysis. Author FEN managed the analyses of the study. Author FEN wrote the first draft of the manuscript. Authors FEN and OJO managed the literature searches while author OJO edited the manuscript. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJAEES/2015/19060
Editor(s):
(1) Mohamed Hsssan M. Abdel Aaal, Faculty of Agriculture, Cairo University Egypt, Egypt.
Reviewers:
(1) Ana Cláudia Correia Coelho, Universidade de Trás-os-Montes e Alto Douro, Portugal.
(2) Anonymous, Universidad Autónoma Metropolitana, Mexico.
Complete Peer review History: http://sciencedomain.org/review-history/10150

Original Research Article

Received 23rd May 2015
Accepted 25th June 2015
Published 14th July 2015

ABSTRACT

Aims: The aims of the study determined the current socio-economic characteristics of livestock farmers, identified the types of livestocks reared in the area, identified the sources of extension information to livestock farmers, ascertained the kind of technologies provided by extension service to livestock farmers, analyzed the benefits of extension services to the farmers and determined the constraints to livestock farming in the area.
Study Design: A survey system which was made up of the random sampling technique was adopted in selecting the respondents for the study. Data were elicited with the questionnaire which

**Corresponding author: E-mail: frankezi@yahoo.com;*

was ethically considered appropriate for the literate respondents.
Place and Duration of the Study: The place of this study was Etche Local Government Area of Rivers State, Nigeria. Survey for the study was conducted between the 10th of February, to 30th of June, 2010.
Methodology: The sample size of the study was 60 livestock farmers who served as the respondents to the study. Data were obtained with both the questionnaire for the literate respondents and interview schedule for illiterate respondents in the study area. The instruments were administered by an enumerator who was trained for this purpose. Methods of data analyses used for the study were frequency, percentage, and analysis of variance.
Results: Result shows that the average age of livestock farmers was 35.5 years indicating they are young and active, meaning that livestock farming can be used to provide employment for unemployed youths in the area. Poultry farming was more (65%) than other stocks, meaning that investment in poultry farming will provide more employment than other livestock sectors. Simple pen sanitation with 28.3% was the technology of highest delivery to livestock farmers. The main source of agricultural information to the farmers were neighbours and friends with 45%. The problems of pests and diseases with 96.7% and poor markets for sale of livestock output with 85% were the main constraints to livestock farming.
Conclusion: The study concludes that livestock farming is useful in employment generation in the study area. For livestock farming to generate more employment in the area, development agencies should provide enough and affordable livestock drugs and vaccines and market for the sale of livestock outputs in the area.

Keywords: Survey; livestock farming; employment generation; Rivers State; Nigeria.

1. INTRODUCTION

Out of the Nigerian youth population of 80 million, representing 60% of the total population, 64 million of them are unemployed, while 1.6 million of those working are underemployed [1]. Youth unemployment is an unwanted social trend and its effects on affected youths are geared towards crime [2]. In order to tackle the menace of unemployment, training the youths to possess skills which are in tandem with real market demand is advocated. Livestock farming is a ready skill to exploit to tackle youth employment, especially now that the Transformation Agenda of Nigerian (TAN) is laying more emphasis on job creation through massive support for small and medium scale enterprises.

It has been shown that the livestock sector is increasingly organized in long market chain, and has employed at least 1.3 billion people globally and has directly supported the livelihood of 600 million poor small holder farmers in the developing world [3]. Currently, livestock farming is the fastest growing agricultural subsector in developing countries with a share of Gross Domestic Product (GDP) already at 33%. In Nigeria, livestock farming generally contributes 5 6% of GDP and 20% of that of agriculture [4]. The growth in GDP is driven by the rapid increase in the demand for livestock products which is driven by population growth, urbanization and increasing income [3].

Livestocks are domesticated animals raised in an agricultural setting to produce commodities such as food, fibre and raise income. Livestock can also be referred to as any breed or population of animal kept by humans for useful and commercial purposes. Some example of livestocks are cattle, goat, sheep, pig, cat, camel, donkey, dog, horse, rabbit, water buffalo and poultry [5]. Livestock holds substantial potential for poverty alleviation, but carefully targeted policies are required to realize this potential. The livestock sector plays important role in socio-economic development of the rural households because it generates a continuous stream of income and employment [6]. Livestock production also reduces seasonality in livelihood patterns, particularly of the rural poor. Livestocks provide draught power, organic farm manure to the crop sector, hide and skin, bones, blood, fibre for industries and conservation of the environment. It supplements income from crop production and other sources and absorbs income shocks due to crop failure. Livestock farming is a key contributor to national development [7].

The research problem of this study was predicated on the fact that the increasing Nigerian population which is estimated to reach 402 million people in the year 2050 [8] will breed more unemployed youths. In view of this fact, a survey of livestock farming as a source of

employment to the growing youth population in Nigeria has become paramount. The research question which was therefore conceptualized to address the research problem was, which type of livestock farming will be more efficient in dealing with unemployment problem in the study area? In order to provide answers to the research question, the objectives of the study were to: determine the current socio-economic characteristics of livestock farmers, identify the types of livestocks reared in the area, identify sources of extension information to the respondents, ascertain the kind of extension technologies provided to livestock farmers, analyze the benefits of extension services to the farmers and determine the constraints to livestock farming in the area. The hypothesis tested in the study states that there is no significant variation in the types of livestock produced by farmers in the area.

2. METHODOLOGY

2.1 Study Area

Etche Local Government Area, being one of the twenty-three (23) Local government areas of Rivers State, Nigeria was the area of this study. It has its headquarters at Okechi. It is made up of five (5) clans namely, Igbo, Ulakwo Umuselem, Okehi, Ozuzu and Mba.

Etche Local Government Area is bounded in the north by Imo State, in the east by Abia State and Omuma Local Government Area, in the west by Ikwerre Local Government Area and in the South by Oyigbo and Obio/Akpor Local Government Areas [9]. Arable crop, tree crop and livestock farming are the main output of farming which is the primary occupation of the people.

2.2 Sampling Procedure and Sample Size

The multistage sampling method was used in selecting the sample size of 60 livestock farmers which constituted the respondents for the study. Initially, random sampling method was used in picking three villages each from the five clans of the study area to have a total of fifteen. Random sampling was also used in picking four livestock producers from each of the fifteen villages to have a total of 60 respondents. Livestock farmers as used in this study are all those who are into livestock production as small, medium or large scale enterprises and are into full or part-time production. Data were obtained with the aid of the interview schedule for the illiterate and the questionnaire for the literate respondents. The instruments were administered by a trained enumerator.

2.3 Method of Data Analyses

Both the descriptive and inferential statistics were used in the analyses of data. Descriptive statistics such as frequency and percentage were used in the analyses of the study objectives. The means in Table 1 were obtained by first multiplying the numerical value of a variable or its midpoint with its frequency to have an output. The sum of the outputs was then divided by the total frequency of respondents to obtain the means. The test of hypothesis which constituted the inferential statistics was achieved with the Analysis of Variance (ANOVA).

3. RESULTS AND DISCUSSION

Result in Table 1 shows that the mean age of the respondents was 35.5 years. This result agreed with the study of [10] where more respondents in the study of rural chicken producers in Ogun State, Nigeria was between 21-40 years. The mean age of these respondents is an indication that majority of livestock farmers in the area are young, strong and active.

This result also connote that investment in livestock farming as a means of employment generation for youths in the study area would be rewarding, since majority of the respondents are young and active people. Table 1 also shows that as the age of the respondent increases, involvement in livestock farming decreases. This result has given credence to the fact that livestock farming in the area promises a good future for youth employment.

Result on sex of respondent's shows that more (67%) males were involved in livestock farming in the area than females with 33%. This result agreed with that of the study of [11] among livestock farmers in Imo State, Nigeria, where the males constituted 70% and females 30% of the respondents. The implication of the result is that there are more male livestock farmers in the area than women. The result connotes that livestock farming as means of employment generation should be targeted at more males than females. The result on marital status shows that married respondents were more (68.3%) than the singles with 21.7%. This result is in tandem with that of [12] among livestock farmers where married respondents were more (52.4%) than the singles.

Table 1. Socio-economic characteristics of livestock respondents

Characteristics	Frequency	Percentage (%)	Mean
Age (in years)			
Less than 25	2	3.3	
25 – 34	33	55.0	
35 – 44	15	25.0	35.5
45 – 54	8	13.3	
55 and above	2	3.4	
Total	60	100.0	
Sex			
Male	40	67.0	
Female	20	33.0	
Total	60	100.0	
Marital status			
Married	47	68.3	
Single	13	21.7	
Total	60	100.0	
Years of schooling(years)			
No formal education	10	16.7	
First school leaving certificate	12	20.0	4.3
Senior secondary school certificate	34	56.7	
Tertiary education	4	6.6	
Total	60	100.0	

Source: Field survey, 2010

Results also shows that the mean number of years spent in schooling by the respondents was 4.3 years. This connotes poor educational attainment of livestock farmers in the area. This finding is corroborated by the fact that as much as 16.7% of the respondents have not attained any form of formal education. Poor educational attainment would lead to poor access of written materials on improved livestock production technologies. The consequence of this poor education will be low productivity by the livestock farmers. Livestock farmers as used in this study are explained in 2.2 of this report.

Table 2 indicates that poultry with 65% was the major type of livestock produced by the respondents. This result agreed with that of [13] where various enterprises in poultry production accounted for 24.9% which represented the second main type of livestock production among Nsukka rural farmers of Enugu State. In view of the fact that poultry production accounted for the major type of livestock produced by these respondents, it would mean that investment in its farming will result into a better employment generation option than other types of livestock farming in the area. Goatry was the next with 31.7%, meaning that it would be the next to poultry in employment generation in the study area. Piggery was the third with 28.3%. Sheep was the least with 3.3%. Respondents were not involved in rabbit and cattle farming. Further probing with the respondents on non participation in the production of rabbit and cattle indicated that the acceptability of rabbit meat is not popular in the area. For cattle production, the respondents indicated high investment cost and unfavourable humid weather condition of the study area as constraints. This implies that sheep, rabbit and cattle farming would not be preferred options for investment in employment generation in the area.

Table 2. Types of livestock kept by respondents

Livestock	Frequency	Percentage (%)
Rabbit	-	-
Piggery	17	28.3
Goatry	19	31.7
Poultry	39	65.0
Sheep	2	3.3
Cattle	-	-

Source: Field survey, 2010. Multiple responses were allowed

Given the fact that F-cal (0.041) was less than F-tab (0.848) as in Table 3, we accept the null hypothesis. The conclusion reached from the

result was that there is no significant variation in the types of livestock produced by farmers in the area. This result implies that the types of livestock produced by the respondents did not differ significantly.

Table 4 shows that the main technical service provided by extension workers to respondents was simple pen sanitation with 28.3%. This technical information was aimed at reducing the incidence of pests and diseases within the livestock pens. Pen sanitation activities included the provision of foot deep, removal of droppings, cleaning and washing of pens, animals and appliances as necessary, provision of clean drinking water and feed, etc. The second technical information provided by extension service to the respondents was identification and treatment of pests and diseases with 25%. Organization of livestock farmers into co-operatives with 6.7% was the least information provided by extension to these respondents. This result tend to connote that membership into agricultural co-operative societies by the respondents was poor in view of the fact that extension workers paid less attention to its recommendation. This also goes to imply that the respondents were yet to reap from the various advantages of belonging to co-operatives such as financial assistance, access to essential and scare production inputs, provision of insurance cover, improved sale of products, etc as shown in the study of [14].

Table 5 shows that neigbours and friends with 40%, represented the main channel of communicating agricultural information to the respondents. This result agreed with an earlier study of [15] where friends and family members provided the highest source of agricultural information to rural women in Rivers State. This result was followed by other livestock farmers with 30% as information source. The third channel of information with 20% was extension agents. This result clearly shows that the extension agents were not the primary source of technical information to livestock producers in this study area.

Table 6 shows that the major benefit of extension services to the respondents was, enhanced production skills with 75%. Production skills which were delivered to the respondents as indicated in Table 4, in their order of importance were simple pen sanitation, identification and treatment of pests and diseases, feeding of animals with concentrate feeds, feeding of animals with locally formulated rations, etc. Enhanced household protein intake with 63.3% was the next important benefit of extension services to the respondents. This result appears to mean that the households of livestock farmers were by the intervention of extension service, consumed more animal protein than the households of non-livestock farmers in this study area. Improved farm income with 56.7% was the

Table 3. ANOVA showing variation in the keeping of different types of livestocks by respondents

Regression	Degree of freedom	Sum of square	Mean square	F-ratio (calculated)	Significance (F-tabulated)
Regression	1	1.67	1167	0.041	0.848
Residual	5	142.83	28.57		
Total	6	144			

Source: Field survey, 2010 (P ≤ 0.05)

Table 4. Technologies provided by extension workers to respondents

Technologies	Frequency (F) (n=60)	Percentage (%)
Simple pen (farm) sanitation	17	28.3
Identification and treatment of pests and diseases	15	25.0
Feeding animals with concentrate	12	20.0
Feeding animals with locally formulated rations	11	18.3
Prompt inviting of veterinary service	6	10.0
Confinement of livestocks	6	10.0
Organization of farmers into co-operatives	4	6.7

Source: Field survey 2010. Multiple responses were allowed

next benefit. The fact that extension service is assisting these respondents to improve on their farm income has justified the benefit of agricultural extension to livestock farmers. This assertion is justified by an earlier study of [16] which indicated that livestock and diary farmers in Peshawar district in Pakistan were satisfied with the current extension services in the area. The least benefit was, increased bank savings with 36.7%. This result has however shown that extension service is making efforts at encouraging the respondents to save some of their profits with the banks. Bank savings would assist the respondents expand their farm businesses, purchase inputs, obtain credit facilities, etc. The fact that livestock farmers in this area are exposed to the benefits of extension services, is an indication that the use of livestock production as a source of generating employment in the area would be meaningful when more extension service opportunities are made available in the area.

Table 5. Sources of agricultural information to respondents

Channels	Frequency	Percentage (%)
Mass media	3	5.0
Neighbours and friends	27	40.0
Extension agents	12	20.0
Other livestock farmers	18	30.0
Total	60	100.00

Source: Field survey, 2010

Table 7 has shown clearly that livestock pests and diseases with 96.7% was a major constraint to livestock farming. This problem was alluded by [17] when they asserted that the high prices of drugs, vaccines and the presence of fake drug dealers have worsen the problems of livestock milk producers. Poor market outlet for sale of livestock products was the next major problem with 85%. This result implies that for livestock farming to serve as a good source of employment in the study area, provision should be made to market its outputs. Insufficient extension agents with 70% was the third problem of the respondents. This result implies that despite the fact that the benefits of extension services in the area were well appreciated (Table 6), more efforts of extension in the area are desired.

Table 6. Benefits of extension services to respondents

Benefits	Frequency (n=60)	Percentage (%)
Increased pen (farm) size	30	50.0
Improved farm income	34	56.7
Enhanced production skills	45	75.0
Improved family social and economic life	28	46.7
Increased bank savings	22	36.7
Enhanced household protein intake	38	63.3

Source: Field survey, 2010. Multiple responses were allowed

Table 7. Constraints to livestock farming in the area

Problems	Frequency (n=60)	Percentage (%)
Insufficient extension agents	42	70.0
Insufficient skills from extension agents	22	36.7
Inadequate credit for expansion	40	66.7
Poor market outlet for sale of livestock products.	51	85.0
Poor co-operative formation	31	51.7
Insufficient veterinary services	58	60.0
Livestock pests and diseases	58	96.7

Source: Field Survey, 2010. Multiple responses were allowed

4. CONCLUSION

Results of this study favours employment generation with livestock farming in the study area. This is because youths who are more affected by unemployment are actively involved in livestock farming in this study. Investment in poultry farming in the area would yield better employment opportunity than other livestocks because it is the stock that was mostly reared by

the respondents. The main source of agricultural extension information to livestock farmers was neigbours and friends. Simple pen sanitation was the technology that was delivered more to livestock farmers. The primary benefit of extension service in the study was the enhancement of the production skills of the farmers. The major constraints to livestock farming in the area were problems of pests and diseases and poor market outlet for livestock outputs.

In order to make livestock farming an effective means of employment generation in the area, drugs and vaccines needed to tackle the problem of pests and diseases should be made available. Also, ready markets should be provided for the outputs of livestock farmers.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:
The peer review history for this paper can be accessed here:
http://sciencedomain.org/review-history/10150