

Utilization of Extension Information among Pig Farmers in Oke-aro Farm Settlement in Ogun State of Nigeria

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This study investigated the utilization of extension information among pig farmers in Oke-Aro farm settlement of Ogun state. The study employed multistage and purposive sampling techniques in selecting pig farmers for the study. Results from the study revealed that most of the pig farmers were male (51.7%) majority of them (51.6%) were within the age range of 31 and 40 years. Also, 31.7% of them were primary farmers so also, 80.8% of the farmers were Christians and only 16.7% were muslims. 69.2% of the sampled farmers were married while only 2.5% were single. 50.8% had primary education and only 25% had B Sc/HND qualifications. Data collected were subjected to statistical analysis. The farmers believed that all the information sources met their needs at different levels but they gained maximally when all the information sources were utilized. The prominent constraints among others affecting pig farmers were wrong timing of extension agents` visits 87%, irregular visits 79% and unavailability of message when needed 78%. Furthermore, it was discovered that major disease affecting pig farmers production was swine fever 44.2%. The study concluded that significant relationships existed between the level of utilization of extension information and age ($X^2 = 11.59$ $p < 0.05$), previous job of the respondents ($X^2 = 16.59$, $p < 0.05$) and the awareness of extension information by respondents ($X^2 = 1.30$, $p < 0.05$). Also, the analysis of variance of the constraints and level of utilization of extension information was significant ($F = 3.24$, $p < 0.05$). Hence, it was recommended that pig farmers be mobilized to have access to extension information with incentives to enhance utilization. Also, the present extension system must be strengthened with involvement of non-governmental agencies and extension divisions of agricultural input service unit to help boost production. Finally, the terms and conditions for granting agricultural loans and insurance scheme must be reviewed positively.

Key Words: Utilization, extension information, pig farmer, farm settlement


Introduction

Agricultural Extension department is the most important public service with the widest range of responsibilities for agricultural and rural development. Adedoyin (1990); Agbamu (2000) asserted that agricultural research and particularly, extension organizations are established to promote agricultural development as effective linkage between extension and research and help them to achieve their goal. The goal of agricultural extension in Nigeria is to facilitate farmers acceptance while the ultimate goal of agricultural extension is to improve standard of living through the transfer of improved farming practices to the rural people (Bzugu and Guary, 2004). Agricultural extension services carry out these goals by using various strategies to encourage farmers to adopt agricultural innovations.

However, for human performance to be effective and efficient, some knowledge is needed on how, why and when certain things have to be done. The

provision or availability of such knowledge is as important as its application to daily life. Farmers need to acquire the necessary information in order to improve their farming methods, increase productivity, high income and high standard of living (Bzugu and Guary, 2004). This is very necessary as there will be no work done if the research findings no matter how effective and appropriate do not get to the farmers. One way by which agricultural information get to the farmers is through extension services (Agbelemoge and Issa, 2009).

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In view of the importance of extension information and its utilization in the nation's agricultural need for food security (Adedoyin, 2004). Hence the need to assess the utilization of extension information among pig farmers in Oke-Aro farm settlement of Ogun state, Nigeria.

Research problem

The carcass yield of pigs is higher than those of cattle, sheep and goat and they are excellent feed converters. However, in spite of these overwhelming advantages of pigs over other animals, their production has not matched their potentials. Some constraints to pig production include religion, peoples attitude, poor breeding, poor managerial expertise, lack of adequate information on pig production and lack of reliable database for national livestock planning. For profitable pig production, there must be access to research findings, good management practices and availability of adequate food of high nutritive values. The attempt to explain the cause of gap between the high promise of agricultural research and the discouraging reality in farmers business led to an investigation on assessment of utilization of agricultural information on pig farmers' economic empowerment. Pig farmers access to research findings could be ascertained to an extent through their access and utilization of piggery extension information with the aim of coming up with suggestions as to how to improve pig production.

This study sought to provide answers to the following research questions:

1. what are the socio-economic characteristics of pig farmers in the study area?
2. what are the sources of information technologies utilized by pig farmers?
3. what are the pig farmers' level of utilization of extension information?
4. what are the problems affecting utilization of extension information in the study area?

Objectives of the study

The main objective of the study was to assess the utilization of piggery extension information by pig farmers in Oke-Aro farm settlement of Ogun state. However, the specific objectives were to:

- i. identify the personal characteristics of pig farmers in the study area,
- ii. investigate pig farmers sources of information technology utilized?
- iii. determine pig farmers level of utilization of extension information, and

- iv. identify the problems encountered by pig farmers in the study area.

Hypotheses of the study

The following hypotheses stated in the null form were tested in the study.

Ho¹: There is no significant relationship between the sources of information technologies on pig production and pig farmers' level of utilization of extension information.

Ho²: There is no significant relationship between constraints affecting pig farmers' utilization of information received and the level of utilization of extension information.

Methodology

The Study Area

The study was conducted in Oke Aro farm settlement in Ifo Local Government Area of Ogun state. The state is located in the south-western part of Nigeria and covers a total of 16,762 square kilometers of land mass. It is bounded by Lagos state in the south, Oyo and Osun states in the north, Ondo and Edo states in the east and by the Republic of Benin to the west. The state is situated between longitude 3.0⁰E and 5.0⁰E and latitude 6.2⁰N and 8⁰N of the equator. The state was created in 1976 and presently has twenty Local Government Areas (Ogun seed, 2006). The population of the state based on 2006 census was 3,751,140 (NPC, 2009). The vegetation is mainly the derived savannah in the northern part while the central part is the rain forest belt and the southern part is mangrove swamp, the mean annual rainfall in the southern part is 128cm and 105cm in the northern part which makes it suitable for livestock rearing because of the derived savannah (**Ogun seeds, 2006**). It also encourages livestock management like cattle, sheep, pigs, goats and poultry. The main enterprise is traditional agriculture (Aihonsu, 1999).

Sampling Technique and Sample Size

Multi-stage technique was employed in selecting farmers for this study. The study population comprised four hundred and eighty (480) farmers that are divided into forty eight groups, each group is made up of ten farmers. The first stage of sampling involved a random selection of fifty percent (50%) of the groups (i.e. 24 groups). The second stage involved a random selection of five farmers from each sampled group resulting in one hundred and twenty (120) pig farmers that were used for the study.

Sources of Data

The data for this study were collected from primary and secondary sources. The pig farmers provided the primary data through the use of structured interview schedule. The secondary data were extracted from published and unpublished information materials, past research works in journals/books, projects and theses that are related to this study.

Results and Discussion

Personal characteristics of respondents

The data showed that 20.8% of the respondents were less than 30 years of age, 70.8% were between 31-50 years and while 6.7% were 61 years and above. Also, men dominated a higher percentage (57.7%) of the respondents. This showed that pig farming in the area

of survey was carried out by both men and women and that were actively involved. Educational level of the respondents showed that those with primary education were of the highest percentage (50.8%) while those with tertiary education (NCE, OND, HND, B.Sc/B.A) constituted 45% and those without formal education were just 1.7%. Majority (69.2%) of the pig farmers were married while 8.3% were widowed, divorced 20% and single were 2.5%. About 80% were Christians, only 16.7% were Muslims and 2.5% practised African traditional religion. In terms of the previous job of the farmers, About 32% of the respondents were primarily pig farmers, 51.7% of them were Civil servants that used pig farming as another means of livelihood, 4.2% of the respondents were teachers or lecturers, 8.3% were technicians while 3.3% were drivers and messengers in various offices. (Table 1)

Table 1: Personal characteristics of respondents

Selected characteristics	Frequency	Percentage
Age (years)		
20– 30	25	20.8
31– 40	62	51.6
41– 50	23	19.2
51 – 60	02	1.7
61 – 70	08	6.7
Sex		
Male	62	51.7
Female	58	48.3
Level of Education		
Non Formal Education	02	1.7
Primary	61	50.8
Secondary	03	2.5
OND/NCE	24	20
B.A/B.Sc./HND	30	25
Marital Status		
Single	03	2.5
Married	83	69.2
Divorced	24	20
Widowed	10	8.3
Religion		
Islam	20	16.7
Christianity	97	80.8
Traditional	03	2.5
Previous Job		
Primary farmer	38	31.7
Messenger	01	0.8
Driver	04	3.3
Civil Servant	62	5.7
Technician	10	8.3
Teachers/lecturers	05	4.2
Total	120	100

Awareness of piggery extension information

As regards the pig farmers' awareness of pig farming extension service, The data revealed that 98.3% of the respondents were aware of the existence of extension services while only 1.7% were not aware. Radio was the major source of information for 45% of the respondents. About 13% of the respondents used television as a source of information on pig production technology while publication 1.7%, extension agents 0.8%, contact farmers 3.3%, agricultural shows 6.7%, friends 1.7% and farm demonstration serves as a source of information for some (2.5%) farmers. Some received information from cooperative societies 10.0% and about 15% received information from farmers' club. (Table 2)

The study revealed different sources of piggery information for different management practices considered in the study. Radio was the major source of information for six management practices with 40-60% such as managing pigs stress 40.0%, deworming piglets 45.0% and others According to Olowu and

Oyedokun (1999) many researchers and practitioners have acknowledged radio as the most widely used information dissemination medium in rural areas because of its affordability and ease of use . Following closely after radio as a source of information in this study was the farmers' club as good source of information for identifying pigs 40.0%, immunizing pigs 22.5% and mixing balance ration 17.5%. Friends were a source of information on giving iron injection 22.5%, mixing balanced ration 27.5% and managing pig stress 18.3%. Extension agent was a source of information for 0.4% - 12.5% of respondents for management practices such as castrating piglets, giving iron injections, managing pig stress, identifying pigs, Television was also a source of information for 4.2% to 18.3% of respondents for management practices such as castrating piglets 13.3%, giving iron injections 18.3%, tail docking 12.5% and deworming piglets 13.3%. Few (1.7%--14.2%) respondents received information from farm demonstration, agricultural shows 1.7%-12.5%, contact farmers 1.7%-6.7% and publications 1.7% - 9.2%.

Table 2. Respondents` sources of information on pig production technologies (n=120).

Sources of Extension Services Awareness	Frequency	Percentage
Radio	54	45.0
Television (T.V)	16	13.3
Publication	02	1.7
Extension Agents	01	0.8
Contract Farmers	04	3.3
Agricultural Show	08	6.7
Friends	02	1.7
Farm demonstration	03	2.5
Farmers' Cooperative Society	12	10.0
Farmers` club	18	15.0
Total	120	100.0

Pig farmers constraints to utilization of extension information.

The greatest constraints to pig farmers` utilization of extension information in this study were ranked in the following order: 1.wrong timing of extension

visits, 2. irregular visits, 3 messages not available when needed, others were: 4.sources of information not enough, 5. lack of formal education, 6. lack of infrastructures, 7. irrelevant messages and 8. channels of information not affordable.(Table3).

Table3: Pig farmers` constraints to utilization of extension information.

Constraints	Percentage	Ranking
wrong timing of Extension visits	87	1
irregular visits	79	2
message not available when needed	78	3
sources of information not enough	57	4
lack of formal education,	46	5
lack of infrastructures	34	6
irrelevant messages	33	7
channel of information not affordable	33	8

Test of Hypothesis

Ho¹: There is no significant relationship between respondents' level of utilization of pig production extension information and their sources of information on pig production technologies.

The data showed that high percentage (98.0%) of the respondents were aware of piggery extension information moderately while only 3.45% were unaware. About 32% of the respondents got to know about

extension service through radio, 22% through farmers' club and 18% through farmers' co-operative society ($X^2_{cal} = 31.2$, $X^2_{tab} = 28.89$, $P = 0.05$) since the X^2_{tab} value = 28.89 is less than calculated X^2 value of 31.28 (Table 4). The hypothesis is rejected. This showed that source of extension service awareness has no significant impact on the utilization of pig production information technology. This implies that the alternative hypothesis is upheld.

Table 4: Summary of Chi-square Analysis of source of extension services awareness and level of utilization of extension service information on pig technologies.

Variables	Df	P value	X^2_{Cal}	X^2_{tab}	Remark
Awareness	2	0.05	1.30	5.991	Significant
Sources	18	0.05	31.28	28.89	Not significant

Level of utilization of extension information and constraint encountered by pig farmers

Ho²: There is no significant relationship between the level of extension information utilization and constraints encountered by pig farmers in the study area.

Analysis revealed that the F_{cal} value calculated in the ANOVA is 0.03466 which was less than the F_{Tab} i.e. ($F_{Tab} = 3.24 > F_{cal} 0.03466$, $P = 0.05$).

This implied that the more information the pig farmers have the more problems they encountered with theoretical expectation it raised the issue on information overload to farmers. In other words, farmers might have been provided with too much information for optimal comprehension.

Table 5. Summary of Analysis of variance (ANOVA) of extension information utilization and constraints of pig farmers

Source	Df	Sum of squares	Means of Sq.	F cal	F tab	P value	Remark
Between	02	1485.92	742.9607				
Within	14	30018.24	21434.16	0.035	3.24	0.05	Significant
Total	16	31564.16					

Conclusions

In line with the objectives and the empirical evidence, the following conclusions were drawn. Significant association existed between personal characteristics such as age, previous job of the respondents and their level of utilization of information while marital status, sex, religion and educational level of the respondents shared no significant association.

There was significant effect of the overall benefit when all agricultural extension information were made available and the pig farmers were aware of the information ($X^2 = 1.30$, $P < 0.05$). It was therefore clear from this study that the common predictors of level of utilization of piggery extension information by pig farmers were sources of information, visits of extension agents, and extent of extension education.

Recommendations

Based on the findings of this study, the following recommendations were made towards improving and utilization of piggery extension information for enhanced pig production.

- Since access is crucial to use of information more avenues for receiving information should be opened to farmers. Efforts should be doubled in the area of livestock information dissemination so as to measure up with its crop counterpart. The extension agent should visit pig farmers more often and offer useful advices on how to solve their production problems.
- Sources of agricultural information must be further boosted to ensure more reach-out to the farming populace. Individual farmers who are

highly innovative should be strengthened to have access to information from other sources and transfer to their fellows and neighbours. Since neighbours and fellow farmers were the closest agricultural information sources in the study, information spread will be guaranteed to farmers.

- As pig farmers received and relied on information gotten from the farmers' co-operative societies, it is therefore suggested that future agricultural development programmes in the state should give attention to agricultural co-operative societies in their implementation in such a way that groups of pig farmers are considered rather than individuals.
- Since some of the information received by pig farmers was not so relevant to their needs, a feedback mechanism of extension should be put to more effective use so as to come up with information that would address pig farmer's need. Without such feedback from the pig farmers, appropriate innovations will not be packaged for their use.

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