Proceedings of the Annual Conference of the Agricultural Extension Society of Nigeria
Number: Twenty-Second Annual Conference
Theme: Mainstreaming Entrepreneurship in Agricultural Extension Practice in Nigeria
Date: 23rd -26th April, 2017. **Venue:** University of Port Harcourt, River State, Nigeria
ISSN: 1595 – 1421.http://aesonnigeria.org/ConfProc . **Email**: editorinchief@aesonnigeria.org

Access and Use of Information Communication Technology among Pig Farmers in Orlu Local Government Area Imo State Nigeria.

https://dx.doi.org/10.4314/jae.v22i1.9S

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Abstract

The study analysed access and use of ICT among pig farmers in Orlu Local Government Area of Imo State, Nigeria. The study examined pig farmers level of access and extent of use of ICTs in the study area. The study adopted multi-stage sampling technique and simple random sampling technique were used to select 120 respondents (pig farmers). Data was collected from them with help of structured questionnaire, data was analysed using descriptive and inferential statistics. The result revealed that television, radio, telephone, newspaper, video player, CDRom\VCD\DVD, internet, pamphlets and magazine were considered most accessible ICT facilities in the study area. While telephone, radio, television newspaper, pamphlets magazine and computer were considered most utilized facilities in the study area. The Pearson product moment correlation result revealed a significant relationship at 1% level of probability between access to and utilization of ICTs. ICT facilities should be installed very close to the pig farmers especially in the rural area to enable the pig farmers have access to them. Also ICT campaign programmes should be encouraged in the study area to enhance pig farmers access to these ICT facilities in other to facilitate the usage of ICTs

Key words: Access, use, ICT, pig farmers

Introduction

Information and communication technology (ICT) play inevitable roles in every aspect of human activities today including agriculture. The key players in agriculture are the farmers and their ability to use the technologies defines the role of ICT in agriculture generally (Nwagwu and Opeyemi, 2015). Information and Communication Technologies is commonly used to embrace a multitude of media including telephone, television, video, telex, voice information systems and fax as well as those requiring the use of personal computers fitted with a modern or supply technologies that facilitate communication processing and transmission of information by electronic means ranging from radio, television (fixed or mobile) and internet (Warren, 2001; CTA, 2003; Omotayo, 2005).

Access refers to the ways and means in which individuals, communities and institutions are exposed to ICT. It takes into consideration such elements as affordability, availability of the technologies, geographical location of the access point and the times at which the technologies are available.

ICT can bring new information to rural areas where farmers tends users will have much greater control than ever before over current channels of information flow (Meera et al., 2004). Access and use of such new information source is a crucial requirement for sustainable development to the farming system. Dissemination of relevant information to communities can facilitate the effective adoption of agricultural inputs, decision making on markets and adoption of scientific methods. Communication is critical to finding solution to problems of food production through facilitating researchers-farmer linkage using information and communication technologies (Dauda et al., 2010).

Pig farmers in Orlu LGA has depended on indigenous knowledge experience and gained through oral tradition and practices over many generations. Acquisition of such these local skills by the pig farmers in Orlu has not really helped to improve pig farming. These constraints have led to lack of access to timely and up-to-date information which could have enabled them to achieve optimal yield from pig production. Farmers lack relevant information ,they need to keep abreast of developments, leading to high transaction costs, which impedes agricultural marketing process (Dao,2004).Ozor and Madukwe (2009) maintained that giving farmers access to a variety of information sources, which are accessible, affordable, relevant and reliable is the ultimate aim of providing agricultural information services .The need for relevant and current information by pig farmers on pig production is a very vital issue that need to be considered in a developing country like Nigeria (Hassan et al,2015). This paper therefore attempts to provide answers to some these questions., there has been little or no focus on access and utilization ICT by pig farmers in the study area

Therefore, the study is providing answers to the following research questions;

- to identify the socio –economic characteristics of the pig farmers
- to examine the pig farmers level of access to information and communication technologies
- to ascertain the pig farmers level of use to information and communication technologies

Methodology

The study was conducted in Orlu Local Government Area agricultural zone in Imo State. Orlu Local Government Area is one of the local government area that make up the twenty-seven (27) local governments area present in Imo state. The study area consist of sixteen (16) communities and they are Amaifeke, ihioma, okporo, ogbaeruru, obibi,ihite-owere, owerre-ebiri, umuowa, umuna, umuzike,amike, umutanze, umudioka,mgbe,orlu,eziachi. Orlu is located within longitude 7.03◦E and

latitude 5.79◦N with an elevation of 152m above sea level. It has an estimated population of 9351. Multistage sampling procedure was used in selecting sample for the First (five) communities, Amaifeke , Okporo, Umuowa, Mgbe and Eziachi were selected from the (16) communities in Orlu LGA, using simple random sampling ,Second stage involved the selection of two villages from each community using simple random sampling gave a total of 10 villages in the third stage. 12 respondents each were selected from each of the 10 villages using simple random sampling techniques. This gave a total of 120 respondents which constitute the sample size for the study. Respondents level of access to ICT was determined based on their mean score, a 4 point Likert-type scale was used to categorize the respondents level of access to ICT and a bench mark of 2.5 was used as a decision rule. Also, respondents level of use of ICTs was determined based on their mean scores, a 3 point Likert-type scale was used to categorize the respondents level of use to ICTs and a bench mark of 2.0 was used as a decision rule.

Results and Discussion

Socioeconomic Characteristics of Respondents

Sex of respondents

Table 1 shows that the majority of the respondents (56.7%) were males while (43.3%) were female. The result showed that the proportion of male engaged in pig farming is relatively high in the study area. It could be inferred that the dominance of agricultural extension service work by male gender could be as a result of pig farm business which is physically demanding, time consuming and are usually energy sapping. It is important to note that male farmers in pig farm business in most rural area easily engages in pig businesses than their female

Age respondents

Table 1 shows that the majority (30.9%) were within their productive age bracket of between 40-49 years and the mean age was found to be (39.05). This is an indication that the pig farming is dominated by young people who are active and within the productive age group. The result also revealed that (25.95%) of the respondents were between 30-39 years, 24.2% were between 20-29 years of age,12.4% were 50-59 years equally.

Marital status.

Table 1 revealed that the majority (58.3%) of the respondents were married, 37.5% were single while 2.5% were widower, 0.8% were widows and divorced respectively. Marriage is an important factor in pig farming in that it offers some form of stability to the farmer. The spouse of the individual may also come in handy in assisting to run and manage the firm. Also the children could be of great assistance in offering help in the form of labour. It could be indicated that most of the farmers into pig farm business were married implying that most of them are respected and responsible individual who could be trusted and committed to their duties especially on the

correctness of the information they would provide in the course of their extension service delivery.

Level of Education

Table 1 indicates that 50.8% of the respondents had tertiary education, 45.8% had secondary education and 3.3% had primary education. The mean level of education is 2.47 with standard deviation of 0.56. This showed that most of the respondents attempted formal education. The implication of this level of education is that the farmers in the study area were literate and capable of reading and writing, this will enhance their access to information. The level of education is sufficient enough to support adoption of technology through information sharing and distribution. Ironkwe *et al.*, (2007) had earlier discussed that education increases adoption and enhances farmers' ability to understand and evaluate production technologies. Education has been identified as a catalyst in agricultural business and other productive activities this is because it is a variable that broadens the mental horizon, influences the totality of the mind and predisposes individuals to new ideas. Adequate education therefore could enhance pig farm business this is business information rule the world and those that have acquire some form of education usually perform better than the uneducated farmers.

Household size

Table 1 reveals that the majority (41.7%) of respondents had a household size of 4-6 persons, 40% had a household size of 1-3persons while few 18.3% had a household size of 7-9 persons. The mean household size is 4.35 with a standard deviation of 2.14. The result implies that pig farmers in the study area have a reasonable, family labour that could help out in the farm. Household size in traditional agriculture determines the availability of labour and level of production (Ani, 2004).

Religious status

Table 1 shows that 99.2% belong to Christian religion and 0.8% belong to Islam religion. This implies that Christianity is predominant in the study area.

Farming Experience

Table 1 indicates that the majority (35.9%) of the respondents had a farming experience of 4-6 years, 32.5% had experience of 1-3years, 16.0% had farming experience of 10years and above while 15.0 % had farming experience of 7-9years which implies that the pig farmers will do well if properly supported with technical advice. This shows that the average farming experience was 6 years which is high enough that if the farmers are properly supported with required technical advice they will do well in their production. This is plausible in the sense that the higher the farming experience, the more the farmer would have gained more knowledge and technological ideas on how to tackle pig production problems and the higher would be his output and his income (Nwaru, 2004).

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Major occupation

Table 1. reveals that 90.8% of the respondents were farmers, 6.7% were students and 2.5% were civil servants. The engagement of most of the respondents in the study area in farming which indicates that pig farming is predominant in the study area.

Monthly income

Table 1 reveals that the majority 64% earned N10,000-N50,000, 29.1% earned N51,000-N100,000, 5% earned N101,000-N150,000, 0.8% earned N151,000, -N200,000, 0.8% earned N201,000-N250,000. The implication is that the pig farmers are low income earners though small scaled but are little comfortable with their income, hence they may not obtain enough finance required to purchase and utilize information communication technology (ICT) facilities.

Table 1: Socio-economic characteristics of respondents

Variables	Percentages	Mean(Std)
Marital status		
Single	37.5	
Married	58.3	
Divorced	0.8	
Widow	0.8	
Widower	2.5	
		1.73(0.75)
Religion		
Christianity	99.2	
Islam	0.8	
		1.01(0.91)
Level of Educational		
Primary education	3.3	
Secondary education	45.8	
Tertiary education	50.8	
		2.47(0.56)
House Hold size		
1-3	40	
4-6	41.7	
7-9	18.3	
		4.35(2.14)
Farming experience		
1-3	32.5	
4-6	35.9	
7-9	15.0	
10 and above	16.0	
		5.65(3.44)
Major occupation		
student	6.7	
Farmers	90.8	
Civil servants	2.5	
		1.95(0.30)
Monthly Income		
10,000-50,000	64.0	
51,000-100,000	29.1	
101,000-150,000	5.0	
151,000-200,000	0.8	
201,000-250,000	0.8	

Source. Field survey, 20

Level of Access to ICT Facilities

Table 2 shows the distribution of respondents based on the level of access to ICT facilities in the study area. Nine (9) out of eighteen (18) ICT facilities have high access and they include; Telephone ($\bar{x}$=3.78) and STD of 0.58, radio ($\bar{x}$=3.68) and (STD=0.62), Television ($\bar{x}$=3.62) and (STD= 0.79), video player ($\bar{x}$=3.48) and (STD=0.76), CDRom/VCD/DVD ($\bar{x}$=3.23) and (STD=0.97), internet ($\bar{x}$=2.65)

and (STD=1.21), magazine ($\bar{x}$=2.61) and (STD=1.08),pamphlets ($\bar{x}$=2.60) and (STD=1.02). This implies that telephone, radio, television, video-player, CD-ROM /VCD/DVD, Internet, pamphlets and magazines play an important role of information transfer and are considered most accessible facilities to pig farmers in the area. This is in line with the findings of Agwu and chah (2007).

Table 2.: Access to ICT facilities

ICT facilities	Mean	SD
Scanner	1.83	1.01
E-mail	2.37	12
Computer	2.43	13
Cinema	1.58	0.88
Digital receiver	1.78	12
CDRom/VCD/DVD	3.23	0.97
Video player	3.48	0.76
Telephone	3.78	0.58
Radio	3.68	0.62
Internet	2.68	1.21
Magnetic Board	1.55	0.89
Flash Drive	2.16	2.31
Television	3.62	0.79
Newspaper	3.44	0.84
Pamphlets	2.60	1.02
Magazine	2.61	1.08
Visual electronic library	1.75	1.03
Multimedia hardware	1.56	0.95
Total mean	40.1	
Grand mean	2.56	
Benchmark	2.5	

Source: field survey, 2016.

Level of Use to ICT Facilities

Table 3 shows the distribution of respondents based on the level of use of ICTs. Nine(9) out of eighteen (18) ICT facilities have high level of use and they include; Radio ($\bar{x}$=2.81)and STD = 0.45 television ($\bar{x}$=2.80) and STD = 0.53, video player ($\bar{x}$=2.71) and STD =0.49, CDRom/VCD/DVD ($\bar{x}$=2.56) and STD = 0.65 , Newspaper ($\bar{x}$=2.55) and STD =0.58, pamphlets ($\bar{x}$=2.30) and STD =1.91, magazine ($\bar{x}$=2.11and STD =0.67, computer ($\bar{x}$=2.10) and STD =0.76, Internet ($\bar{x}$=2.08) and STD =0. 85

The implication of this is that pig farmers in the study area level of use on ICT facilities such as telephone, radio, television, newspaper, pamphlets, magazine and computer were considered to be high in the level of use that is pig farmers make use of these available ICT facilities in the study area. According to Adejo and Haruna (2009), these classes of ICTs tools are ideal for rural areas, cheap to setup, easy to use and fill vital needs of the pig farmers.

Table 3: Use of ICT facilities

ICT facilities	Mean	SD
Scanner	1.55	0.67
E-mail	1.98	0.75
Computer	2.10	0.76
Cinema	1.60	2.00
Digital receiver	1.68	0.82
CDRom/VCD/DVD	2.56	0.65
Video player	2.71	0.49
Telephone	1.93	0.32
Radio	2.81	0.45
Internet	2.08	0.85
Magnetic Board	1.52	0.78
Flash Drive	1.73	0.85
Television	2.80	0.53
Newspaper	2.55	0.58
Pamphlets	2.30	1.91
Magazine	2.11	0.67
Visual electronic library	1.36	0.62
Multimedia hardware	1.33	0.57
Total mean	37.7	0.67
Grand mean	2.09	
Benchmark	2.0	

Source: Field survey, 2016

Conclusion and Recommendation

ICT facilities such as telephone, radio, telephone, video player, CD Rom\VCD\DVD, internet, magazine and pamphlets were considered most accessible facilities to pig farmers in the area.

Campaign programmes should be encouraged in the study area to enhance pig farmers' awareness to these ICT facilities in other to facilitate the use of ICTs.

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