

ASSESSMENT OF RURAL YOUTH INVOLVEMENT IN THE USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTs) AMONG FARMERS' IN OSUN STATE, NIGERIA

J. O. AYINDE, D. O. TORIMIRO, G. F. KOLEDOYE, O. A. ADEPOJU

Obafemi Awolowo University, Department of Agricultural Extension and Rural Development, Ile Ife, Nigeria, Phones: +2348035719389, +2348033953651, +2348035603497, Emails: tundejoy@yahoo.com, torimiro@gmail.com, gbengakoledoye@gmail.com

Corresponding author: tundejoy@yahoo.com

Abstract

This study assessed rural youth involvement in the use of Information and Communication Technologies (ICTs) in agriculture in Osun State, Nigeria. Specifically, it examined awareness and analysed attitude of rural youths in the use of ICTs to disseminate agricultural information. A multi-stage sampling procedure was used to select one hundred and twenty respondents for the study. The data were collected using structured interview schedule and analysed using descriptive and inferential statistics. The mean age of respondents was 18.0 years. Also, 71.7 percent of the respondents scored high in ICTs awareness in relation to agriculture. Telephone (56.0%) was commonly used as a mean of passing agricultural information among the youths and the level of computer/literacy was slightly above average (58.3). Result of the correlation analysis shows that there was a positive and significant relationship ($r=0.481$; $p>0.05$) between the awareness of the usage of ICTs in agriculture and their attitude toward the use of ICTs. The study therefore concluded among others, that rigorous awareness on the importance of ICTs in farming should be created among youths in Osun State in order enhance and bring about positive solutions to agricultural development stakeholders efforts in combating food insecurity in Nigeria.

Key words: *information and communication technologies (ICTs), information dissemination, involvement, rural youth*

INTRODUCTION

The poor image of persons involved in agriculture needs to be changed and the young people are the ideal catalysts for such change given their greater propensity and willingness to adopt new ideas, concepts and technology which are all critical to changing the way agriculture is practised and perceived. The term “youth”, according to the United Nations refers to people who are aged between 15 and 24 years. In the Third World countries, about 20 percent of the population belongs to this age group. Rural youth account for 55 percent of the world. [10]

Youths are defined as the people within the ages of 13-30 years. These people constitute about 32 percent of the Nigerian rural communities. The oxford dictionary describes the youth as the period between childhood and adult age. [5]

Qualities of vigour, freshness, immaturity and so on are associated with youth (being youth).

They are agents of change when given the opportunity in a community. [4]

Rural youth, therefore, should be brought into the mainstream of the rural development process in general and agricultural development in particular if the problem of food insecurity is to be solved in Nigeria.

Communication of agricultural information to the farmers is an important input for agricultural development. [6]

It is generally assumed that only the farmers of higher socio-economic status are availed the opportunity of receiving information from the different sources. The greater task before the extension worker is to provide agricultural communication to a large number of illiterate and poverty stricken people who constitute a major portion of the farming population. In order to reach a large, heterogeneous and anonymous group of people, two important media: print and electronic are significantly important.

The absence of functional agricultural

information delivery system is a major constraint to agricultural development in Nigeria. [4]

Non-provision of necessary agricultural information was identified as a key factor limiting agricultural development in Nigeria. [2]

Also, lack of access to relevant agricultural information by farmers in developing countries cuts across all subsectors of agriculture and different stages of agricultural production process. [9]

Farmers need to be informed and educated about improved agricultural practices to enable them increase their productivity and income. Several channels such as extension agents, individuals, farmer-to-farmer contact, print media (newspapers, magazines, newsletters, leaflets, pamphlets, and posters) and electronic media (radio, television, film, slides and film strips) have been widely used to disseminate information to farmers. [8] and [7]

The required amount of information and learning is, however, so vast that only effective use of the information multipliers, the mass media, can provide information at the rates driven by pressure of time, population, geographical constraints, and shortage of trained extension personnel in developing countries.

As it becomes necessary and vital to facilitate food and nutrition security, there is the need to encourage the youths especially those in the rural community to participate well in agriculture, knowing how the economic, social and cultural contexts of agriculture are changing fast, as evidenced by significant shifts in the patterns of food production and consumption. An increasingly globalised world also means that there is now greater access to fast-evolving communication and media technology, which improves information flow and adds to the feeling that the world is getting smaller. However, development and growth processes still move at different speeds in different locations, even within countries. These inequalities are increasingly visible to people living in remote rural areas, often characterised by under-investment, especially in ICTs and this results in slow growth with high consequence on the

state of food security in these areas. [4]

Thus, literature has revealed that youths have been characterised by innovation proneness, faster reaction time, minimal risk aversion, faster rate of learning, greater knowledge acquisition propensity but little has been said about exploiting these characteristics in the use of ICTs in Agriculture. [1] and [4]

Hence, the study seeks to assess rural youth involvement in the use of information and communication technologies (ICTs) in agriculture in Osun State, Nigeria. Specifically, it described the demographic characteristics of the rural youths, analysed the rural youth level of awareness of ICTs in disseminating agricultural information, examined the common ICTs equipment used and described the youth perception to the ICTs use in the study area.

MATERIALS AND METHODS

The study area was carried out in Osun State which is located in South-Western Nigeria with an area of approximately 8,882.55 square kilometres. It lies between longitude 4° to the west and longitude 5°4' to the East. The vegetation of the State runs through secondary forest and derived savannah with natural lowland tropical rain forest vegetation with an average of 152mm per annum rainfall. The state is divided into three administrative zones, thirty Local Government Areas (LGAs) with an area office in Modakeke. The selected Local Government areas were located within the three administrative zones.

Primary and secondary data were used for the study.

The population of the study was youth aged between 13 and 30 years.

A multi stage sampling procedure was adopted. First, proportionate sampling technique was used to randomly select five (5), four (4) and three (3) Local Government Areas (LGAs) from the three Agricultural Development Programme zones viz: Osogbo zone; Ife-Ijesha zone; and Iwo zone, respectively. In all, twelve (12) LGAs representing about 40 percent of the total LGAs (30 LGAs) in the state was selected. In

the second stage, a purposive sampling technique was used to select one rural community in each LGA selected. In all, twelve (12) rural communities were selected. In the last stage, snow-ball sampling technique was used to compile a list from which 10 respondents (secondary school students) were selected in each rural community selected for the study, making a total of 120 respondents. The data were collected using structured questionnaires. The dependent variable was the respondents' perception of ICTs use. This was determined by asking the respondents 10 perceptual questions on a five point scale of: Strongly Agreed (5), Agreed (4), Undecided (3), Disagree (2) and Strongly Disagree (1). Data collected were analysed using descriptive statistics such as frequency counts, percentages, mean, standard deviation, bar-chart and pie-chart while chi-square and correlation analyses were used to make deductions. Level of awareness of ICTs use was rated on a three point scale of high,

moderate and low using mean plus and minus standard deviation.

RESULTS AND DISCUSSIONS

Demographic characteristics of youths

Results in Table 1 shows that 1.6 percent of the respondents were within the age group of 16-20 years, while 1.6 percent were within the age below 15 years old.

The Table also reveals that 4.1 percent of the respondents fell within the age bracket of 21-25 years.

Age group of 26-30 years was 71.6 percent while 20.8 percent of the respondents were found to be of 30 years and above.

This implies that youths of the age range of 26-30 years form bulk of the respondents with the mean age and the standard deviation of 17.8 ± 0.91 years of age.

This finding is in agreement with that of [5] which defined youth as a group of people that are found within the age group of 13-30 years of age.

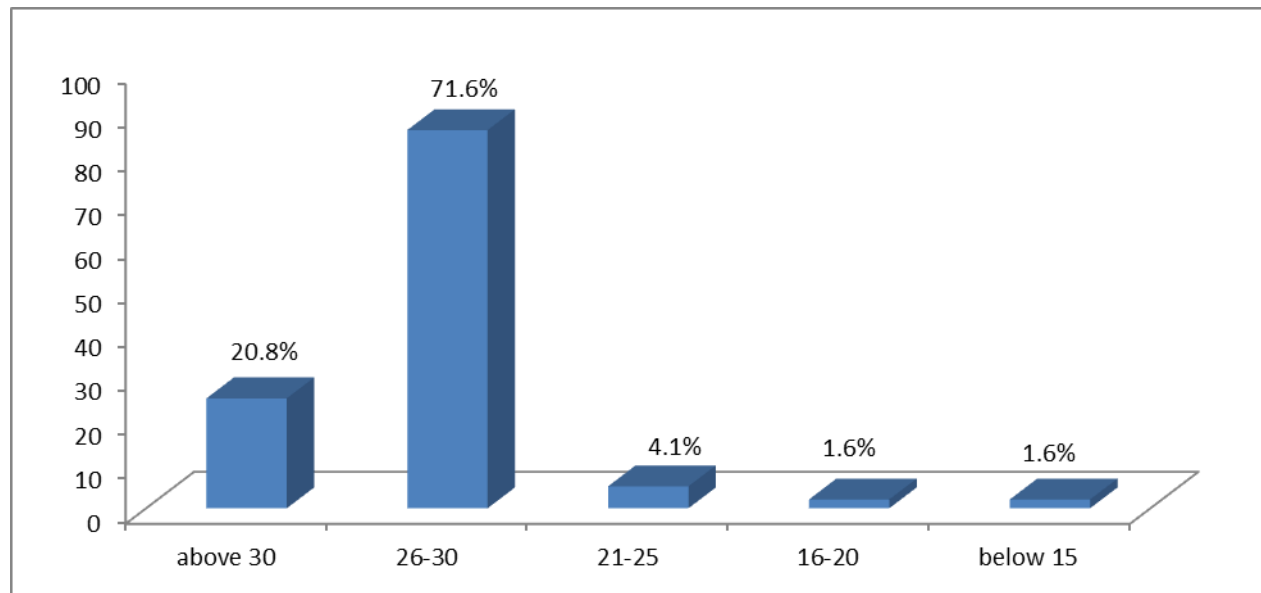


Fig. 1. Distribution of respondents based on age group
Source: Field Survey, 2012

Also, results in Table 1 reveal that majority (55.8%) of the respondents were male, while 44.2 percent were female. This indicates that male respondents were slightly higher than female. This could be due to the fact that most parents in the rural areas invested more in male education than their female counterpart

based on [3] findings. More so, about 95.8 percent of the respondents were single, while only 4.2 percent of the respondents were married, indicating that majority (95.8%) of the respondents were not married, thus, still living with their parents.

Table 1. Frequency distribution of Personal and Socio-economic Characteristics of respondent

Variables	Frequency	Percentage	Mean	St. Dev.
Age				
10-15	25	20.8	17.8	3.6
16-20	86	71.8		
21-25	5	4.2		
26-30	2	1.6		
Above 30	2	1.6		
Sex				
Male	67	55.8		
Female	53	44.2		
Marital Status				
Single	115	95.8		
Married	5	4.2		
Divorced				
Average stipend per month				
Below ₦2000	56	46.7		
₦2000 - ₦4000	22	18.3		
₦4100 - ₦6000	6	5.0		
₦6100 - ₦8000	3	2.5		
₦9000 and above	7	5.8		
No response	26	21.7		

Source: Field Survey, 2012

Figure 2 shows that 54.2 percent were Muslims, 45.0 percent were Christians while very few (0.8%) of the respondents practiced traditional religion.

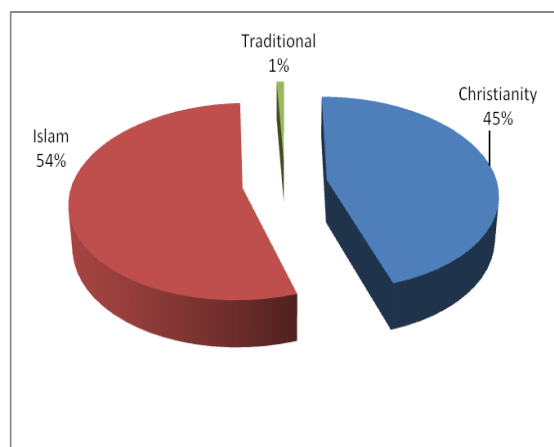


Fig.2. Distribution of respondents based on religion

Source: Field Survey, 2012

This indicates that Islam is the dominant religion in these areas. Furthermore, results in Table 1 show that about 46.7 percent of the respondents earned less than ₦2000 per month, 18.3 percent indicated ₦2000-₦4000 as their monthly stipends while 21.7 percent of the respondents did not indicate their month stipends. Also, the Table further reveals that 5.0 percent of the respondents earned between ₦4100 and ₦6000 per month

while 2.5 percent and 5.8 percent earned between ₦6100 and ₦8000 and ₦9000 and above as their monthly stipends, respectively. These analyses indicated that most of the respondents were not salary earners as most of them still depend on their parents for provision of their needs. This may serve as an hinderance to the aquisition of ICTs equipment by this category of people in the rural area. Results in Table 1 indicated that majority (58.3%) of the youth were computer literate. This implies that their knowledge of ICTs use may be high.

Awareness of ICTS tools and level of awareness

Results in Figure 3 show that 56.0 percent of the respondents were aware of the use of telephone in disseminating information to the farmers, 53.0 percent were aware that radio could be used to disseminate agricultural information to the farmers, 41.7 percent indicated that they were aware of the use of television to disseminate information to the farmers. Also, 35.0 percent and 30.0 percent indicated that they were aware of using internet and print media to pass agricultural information to the farmers. An indepth analysis using mean and standard deviation to rate the youth level of awareness of ICTs use

showed that 71.7 percent of the respondents were rated high in ICTs awareness in farming, 17.1 percent rated low while 11.2 percent of the youth were rated moderate in awareness score as shown in Figure 4. This implies that youth in the study area were rated high in their level of awareness of ICTs use in farming.

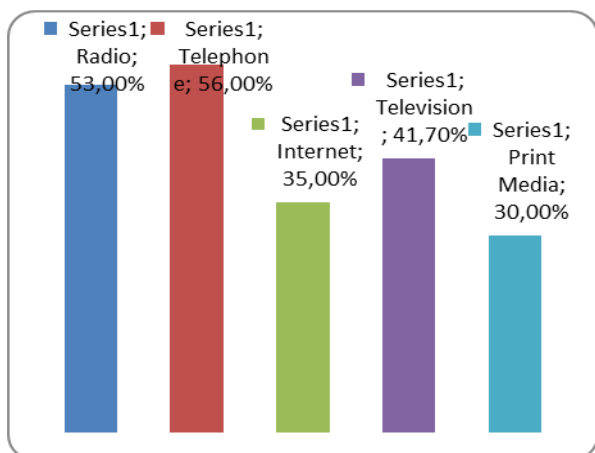


Fig. 3. Distribution of youth based on their awareness on the use of ICT in farming
 Multiple responses

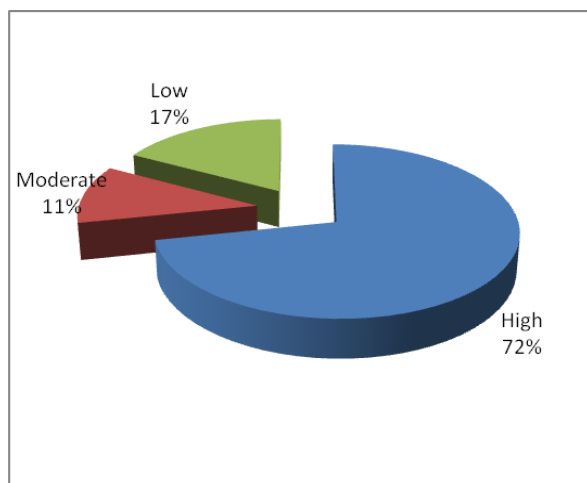


Fig. 4. Respondents' rating in ICTs awareness score
 Source: Field survey, 2012

Access to ICTs tools

Results in Table 2 show that 39.2 per cent of the youth had access to television, 37.5 per cent had access to telephone set while 10.0 per cent and 7.5 percent had access to radio and computer, respectively.

This reveals that majority of the respondents had access to television. This means that television is the most accessible ICTs equipment to many youth as a medium of

passing agricultural information to the farmers in the study area.

Table 2. Accessibility of the respondents to ICTs tools

Selected ICTs tools	Frequency	Percentage
Television	47	39.2
Telephone set	45	37.5
Radio	12	10.0
Computer	9	7.5
Others	7	5.8

Source: Field survey, 2012

Perception of youths to ICTs use in agricultural information dissemination

Results in Table 3 show that a larger percentage of the respondents disagreed with the notion that ICTs has nothing to do with agriculture, 32.5 percent disagreed to this statement, 8.3 percent strongly agreed to the statement. Also, a very large percentage (43.3%) strongly disagreed that evil spirits are used in the production of ICTs tools. This implies that most of the respondents perceived ICTs as something that could be used to improve agricultural productivity in the study area.

32.5 percent of the respondents strongly disagree that only the rich can use ICTs tools while 15.8 percent strongly agree to the statement. This implies that most of the respondents perceived ICTs as tools that could be used by both the rich and the poor provided they have adequate knowledge of it. 27.5 percent of the respondents disagree with the notion that people using these facilities were cheats or trickers. It implies that most of the youths know the use and importance of internet facilities. Likewise higher proportions (36.7%) strongly agree that television and internet exposes one to social vices. 34.2 percent of the respondents picked strongly agree to the the statement. Few (12.5%) strongly disagree with the statement. 39.2 percent agreed that ICTs tools play an important part in eroding our culture and affecting our ways of doing things while 6.7 percent disagreed. This reveals that the respondents know the adverse effect ICTs has had on the society with special focus on agricultural productivity.

Table 3. Youth perception of ICTs tools usage in agricultural information dissemination

		SA	A	U	D	SD
ICTs has nothing to do with Agriculture	Freq.	10	23	18	39	30
	%	8.3	19.4	15	32.5	25
Evil spirit are used in the agricultural production	Freq.	15	15	15	23	52
	%	12.5	12.5	12.5	19.2	43.3
Only the rich use the phones and internet facilities	Freq.	19	13	10	39	39
	%	15.8	10.8	8.3	32.5	32.5
People who use internet facilities are trickers	Freq.	10	31	28	33	18
	%	8.3	25.8	23.3	27.5	15
Television and internet exposes one to social vices	Freq.	41	44	15	15	15
	%	34.2	36.7	12.5	12.5	12.5
ICTs tools play important part in eroding our culture and the way of doing things	Freq.	33	47	12	20	8
	%	27.5	39.2	10	16.7	6.7
ICTs tools provide exposure of the youth and effect changes in every communities	Freq.	42	58	15	4	5
	%	35	48.3	12.5	3.3	4.2
ICTs tools make access to information easier	Freq.	69	38	7	1	18
	%	57.5	31.7	5.8	0.8	15

Source: Field survey, 2012

In addition, 48.3 percent of the respondents agree that ICTs tools provide exposure for the youth and also effect changes in every communities. 35 percent strongly agree, 12.5 percent were undecided while 0.8 percent disagree. 57.5 strongly agree that ICTs tools make access to information easier for people, while 4.2 percent disagree to the statement.

It can be deduced from the results that 27.5 percent of the total respondents strongly disagree that ICTs tools are majorly for entertainment while 10 percent and 15 percent are undecided and strongly disagreed with the notion.

Relationship between youth awareness and their perception in the use of ICTs tools in disseminating agricultural information

Results in Table 4 showed that positive ($r = 0.481$; $P \leq 0.05$) significant relationship existed between youth awareness of ICTs and their attitude towards the use in disseminating agricultural information at 5% level of significance.

This implies that the higher the awareness rate, the more positive their attitude towards the use.

This conforms with the expectation of the study that awareness could make one to develop favourable attitude towards the use of certain equipment, techniques or methods in all sphere of life.

The contribution of awareness to the attitude of the respondents was 23.1 percent.

Table 4. Results of Pearson Correlation analysis showing the relationship between awareness of ICTs and their perception towards the use in disseminating agricultural information

Variable	Pearson's correlation	Coefficient determination	of Decision
Total awareness score	0.481**	0.231	S

Source: Field survey, 2012.

*Significance at 0.01 (1%) level

**Significance at 0.05 (5%) level

CONCLUSIONS

The use of ICTs in farming could bring about high productivity if the youths and other agricultural development stakeholders perceive ICTs tools as media of agricultural transformation. Furthermore, in order to enhance paradigm shift in the agricultural practices among our farmers to forestall food insecurity, youth training and retraining in the use of ICTs is highly essential. This will promote adequate and timely information sharing among the farm families and the consumers with a view to promoting agricultural productivities for food security in Nigeria.

Based on the findings, the study concludes that majority of youths were rated high in their level of awareness of ICTs tools in agricultural information dissemination and telephone and radio were the major ICTs tools used in agricultural information

dessemination. The study concludes that awareness of ICTs influenced their perception towards the use of ICTs. The study recommends that youths should be more involved in the use of ICTs in disseminating agricultural information with a view to improving agricultural productivity in Osun State.

REFERENCES

- [1]Adedoyin, S. F., 2003, The Nigerian Child and the National, plan for decent livelihood in the Annual Research Network Meeting and Conference of Children –in Agriculture Programme (CIAP) Lagos Nigeria pp 1-8.
- [2]Aina, L. O., 1989, Education and Training of Librarian for Agricultural Information work in African. Quarter Bull. IAALD.34(1), 23-26
- [3]Deji, O.F., 2011, Gender and rural development. Berlin series on Society, economy and politics in developing countries Vol 106.
- [4]Torimiro, D.O, Kolawole, D.O., Okorie, V.O., 2007, In-school farm youth and ICT usage: A gender analysis of Nigeria's Yoruba communities. Journal of youth studie, Vol 2, (1)
- [5]Torimiro, D. O., 1999, Factors Associated with Youth Participation in Rural Leadership Development Activities in Ogun State, Nigeria). An unpublished Ph.D.Thesis. Department of Agricultural Extension and Rural Department, Obafemi Awolowo University, Ile-Ife, Osun State. Pp. 11- 46.
- [6]Torimiro, O. D., Yomi, A., 2008, Communication in Agricultural Extension. In Akinyemiju, O. A. and Torimiro, O. D. (2008) Agricultural Extension: A comprehensive Treatise with Model of Questions and Glossary. ABC Agricultural System Ltd, 99A, Obafemi Awolowo Way, Ikeja, Lagos, Nigeria. Pp. 134.
- [7]Olowu, T. A., Oyedokun, A. O., 2000, Farmers' Accessibility of Agricultural Marketing Information: The Case of Oyinladun Radio Programme. J. Econs. And
- [8]Van den Ban A.W., Hawkins, H. S., 1992, Agricultural Extension, Blackwell Science, Oxford. pp. 19-23.
- [9]Youdewei, A., 1995, The Role of Information for Rural Development in ACP Countries. Proceedings of an International Seminar, Montpellier, France, pp. 12-16.
- [10]World Bank, 2007, "Executive summary" in World Bank. Rural Development: From Vision to action, the next generation, World Bank, Washington, D. C.

