



Agricultural Information Literacy Skills and Information Use by Farmers in Iwo Senatorial District of Osun State, Nigeria

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ABSTRACT

Information literacy is a paradigm for lifelong learning. This study analyses farmers' agricultural information literacy skills and information use in Iwo Senatorial District of Osun State, Nigeria using a structured questionnaire to randomly sampled 480 respondents. Descriptive statistics such as frequency distribution and percentage was used to analyse the level of information literacy, sources, frequency and purpose of agricultural information and challenges to agricultural information literacy. The result showed that the majority, 451 (94.0%) were skilled in using mobile to communicate. Majority of the respondents 453(94.4%) used and rely on agricultural extension agents for agricultural information while 451(94.0%) used information for the advancement of primary production of agriculture. The results further showed that the farmers (55.2%) used information on diseases and pest management almost on weekly basis. High rate of illiteracy with a response rate of 89.6% and a mean value of 3.56 was one of the major problems encountered by farmers in using agricultural information. Therefore, the study recommends that extension agencies should provide up-to-date information and technology that can improve these farmers' skills in all these areas that they are deficient in relevant information. There is urgent need to intensify adult literacy campaign among the rural farmers.

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INTRODUCTION

Farmers in Nigeria engage in various farming activities such as planting, weeding, tilling, harvesting, threshing and winnowing of agricultural products as well as the processing, storage and marketing of farm produce. Thus, an average Nigerian farmer should have easy and timely access to agricultural information. Apart from other factors of production, information is always the core of any successful venture. According to Aina *et al.* (1995), information has a vital role to play in improving and sustaining agricultural production of any nation. Furthermore, Fawole (2008) reported that information dissemination to farmers in

the rural areas is an integral part of the clamor for adoption of innovations and agricultural development. Information has been identified as one of the resources required for the improvement of agricultural production. It is said to be a resource that must be acquired and used in order to make an informed decision. According to Adedeji *et al.* (2012), those who possess appropriate and timely information will make a more rational decision than those without it.

As a new paradigm for lifelong learning, information literacy has being described as the ability to identify information needs, seek out resources to meet those needs, and then analyze,

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evaluate, synthesize, and communicate the resulting knowledge (John, 2005; Moruf, 2020). It encompasses much more than access to and the ability to use computers, the Internet and associated paraphernalia. It includes an ability and willingness to understand the value of information, to recognize entrepreneurial opportunities in the sector, to locate, evaluate, and select appropriate information sources, and to translate information into knowledge to be used productively, even strategically (John, 2005). Broadly defined, information literacy is a set of abilities that allow a person to recognize when information is needed and to effectively and efficiently act on that need (Rockman, 2002).

Considering the importance of agricultural production and practices in the nation's economy, it must be re-emphasized that individual farmers need to be information literate more than ever before for effective utilization of available agricultural information. When farmers are information literates, they will be able to easily identify their needs, select sources, evaluate the sources, and can use the information acquired for a variety of purposes, including empowering themselves, exercise greater control over their activities, and improving agricultural service. It could be observed that farmers in Nigeria, irrespective of gender, status

or location are often faced with the problem of inadequate relevant and up-to-date information, which they needed so much in carrying out their day-to-day farming activities. It is on this basis that this study aimed to investigate the agricultural information literacy skills and use of information by farmers in Iwo Senatorial District of Osun State, Nigeria.

MATERIALS AND METHODS

The study was conducted in Osun State, South-western part of Nigeria with much arable land. Osun State covers an area of 8700 kmsq with capital at Osogbo with a growing population of about 3,416,959. Farming remains the centre of economy of Osun State that has over 90% of her rural population involved in farming activities relating to crop sub-sector, thereby providing the bulk of income in the state (Osun.gov.ng). The population for the study comprised of 3140 farmers in three local government areas of Iwo Senatorial District (Iwo, Ayedire and Ola-Oluwa) under the FADAMA III and Root and Tuber Expansion (RTEP) programmes. The cluster sampling technique was adopted for this study. The random sampling technique was used to select 15% sampling fraction as supported by Gay and Airasan (2003). This therefore gave a total sample size of 480 respondents.

Table 1: Study Sample in Iwo Senatorial District of Osun State, Nigeria

S/No	Local Government Area	Population	Sample
1.	Iwo	1250	190
2	Ayedire	985	150
3	Ola-Oluwa	905	140
	Total	3140	480

Data was collected through the use of structured questionnaire and interview method. The data was then analyzed using descriptive statistics such as frequencies and percentages presented in tabular form. Also, the Pearson Product Moment Correlation was

used to find the relationships and differences between the variables.

RESULTS AND DISCUSSION

Information Literacy Skills of Farmers

Table 2 presented an analysis of the level of information literacy skills of farmers in Iwo Senatorial District of Osun



State. Majority of the farmers, 451(94.0%) were skilled in using mobile to communicate, while about 166(34.6%) of them were skilled at evaluating and using information properly and only 9(1.9%) of them could retrieve information from online. The study further showed that only few farmers could extract record and manages information while none of the farmers in all the three local government agricultural areas could use computer, multimedia and AV equipment. This result is in line with the findings of Blait (1996) which showed that rural agricultural development could be enhanced through adequate access to knowledge and

information in areas of new agricultural technologies, early warning systems (drought, pests, diseases etc), improved seedlings, fertilizer, credit, market prices among others.

In the present study, farmers in two agricultural zone had low level of information literacy skills, which mostly has to do with using mobile telephone to communicate. This probably meant that majority of the farmers were not really skilled in information identification, acquisition, evaluation and using information to aid effective decision making in their agricultural practices.

Table 2: Level of information literacy skills of farmers in two Senatorial District of Osun State

S/N	Information literacy skills	Yes	No	Ranking
1	Using mobile to communicate	451(94.0%)	29(6.0%)	1
2	Using internet	12(2.5%)	468(97.5%)	4
3	Evaluating and using information properly	166(34.6%)	314(65.4%)	2
4	Retrieving information from online	9(1.9%)	471(98.1%)	5
5	Extracting, recording, and managing information	83(17.3%)	397(82.7%)	3
6	Using computer, multimedia & AV equipment	--	480(100.0%)	6

Sources of Information Used by Farmers

Table 3 showed that there were various information sources used by the farmers in gathering agricultural information. It was revealed that majority of the respondents, 453(94.4%) used and rely on agricultural extension agents for information. This agrees with Swanson (1997) that farmers do *better* in what they see and practice than what they hear only. Also, 394(82.1%) of the respondents used and relied on radio programmes for agricultural information. This may be due to the fact that radio is cheap, mobile and affordable to the farmers. This result supports the findings of Morgan (1993) in a study carried out in Kenya which showed that 80% of the populations were radio listeners. Moreover, Helen and Amin (2002) found that the radio remains the most important medium for communicating with the rural populations of developing countries. Other useful

sources of information for majority of the farmers were government-assisted agricultural projects (FADAMA) and newspapers. It was also observed in the present study that other sources of information like television, other farmers, agricultural/agro-allied centres, as well as agricultural institutes (IITA, IAR&T, CRIN, etc.) were also used by some of the farmers in the study areas. Interestingly, it was not very surprising as most of the farmers do not use the library and information centres for information gathering. This however, could be attributed to low or poor awareness of the farmers to the important role of libraries in information acquisition and dissemination.

The present study shows that sources of information to farmers include radio, television and other electronic sources. This is inconsonant with Ronald *et al.* (2015) who studied the preference



sources of information used by Seaweeds farmers in Unguja, Zanzibar. They found that neighbours and or friends, radio, family/parents and personal experience

are types of information sources used in the study area, but extension agent and radio were mostly consulted by respondents.

Table 3: Sources of Information Used by Farmers in Iwo Senatorial District of Osun State

S/N	Sources	Yes	No	Ranking
1	Agricultural extension agents	453(94.4%)	27(5.6%)	1
2	Newspapers	317(66.0%)	163(34.0%)	4
3	Friends	22(4.6%)	458(95.4%)	10
4	Other farmers	140(29.2%)	340(70.8%)	8
5	Family members	4(0.8%)	476(99.2%)	12
6	Library and information centres	44(9.2%)	436(90.8%)	9
7	Radio programmes	394(82.1%)	86(17.9%)	2
8	Government Assisted agricultural projects (FADAMA)	388(80.8%)	92(19.2%)	3
9	Television	190(39.6%)	290(60.4%)	5
10	Local government office	15(3.1%)	465(96.9%)	11
11	Agricultural/agro-allied centres	146(30.4%)	334(69.6%)	7
12	Agricultural institutes (like IITA, IAR&T, CRIN, etc.)	186(38.8%)	294(61.2%)	6
13	Health talks and hospitals	1(0.2%)	479(99.8%)	13

Purpose of Information Use by Farmers

The purpose of information use by the farmers is presented in Table 4. The farmers make use of information for various purposes where majority, 451(94.0%) used information for the advancement of primary production of agriculture (mean=3.54). This was closely followed by using information to produce quality product and product planning as indicated by 447(93.1%) of the respondents (mean=3.45). Also, about 92.1% of them used information to achieve sustainable agriculture (mean=3.24), while the least respondents

65.7% used the information to develop community education (mean=2.37). Other purposes of information use by the farmers include – to control pest, for marketing agricultural products, animal disease control, and to achieve self-improvement. As indicated, the farmers in Iwo agricultural zone used information mostly to aid and enhance sustainable agricultural production and quality agricultural products and marketing. This is also in line with the findings of Oyeyinka and Bello (2013) on farmers' use of ICTs for marketing information outlets in Oyo State, Nigeria.

Table 4: Purpose of Use of Information by Farmers in Iwo Senatorial District of Osun State

S/No	Online information	SA	A	D	SD	Mean	S.D
1.	For advancement of primary production of agriculture	344 71.7%	107 22.3%	1 0.2%	1 0.2%	3.54	0.94
2.	To produce quality product and product planning	316 65.8%	131 27.3%	32 6.7%	1 0.2%	3.45	1.06
3.	To develop community education	42 8.8%	273 56.9%	74 15.4%	91 18.9%	2.37	1.53
4.	To achieve sustainable agriculture	223 46.5%	219 45.6%	2 0.4%	1 0.2%	3.24	1.08



S/No	Online information	SA	A	D	SD	Mean	S.D
5.	To achieve self-improvement	56 11.7%	289 60.2%	48 10.0%	1 0.2%	2.48	1.57
6.	For marketing agricultural product	190 39.6%	256 53.3%	32 6.7%	2 0.4%	3.19	0.98
7.	To control pest	39 8.1%	361 75.2%	19 4.0%	2 0.4%	2.66	1.13
8.	For animal disease control	138 28.8%	240 50.0%	20 4.2%	1 0.2%	2.74	1.97

Frequency of Information Use by Farmers

The frequency of information use by farmers as revealed in Table 5 indicated that majority of the respondents, 265(55.2%) used information on diseases and pest management almost on weekly basis (mean=4.83). Most of the respondents 201(41.9%) used information for transportation of farm produce in about a week (mean=3.61), while only few used government policies and schemes on agriculture (mean=1.60) but rarely used by the majority 274 (57.1%). Other agricultural information with high level of use on daily and weekly basis were

modern cultivation system, seeds and planting materials, manure and fertilizer management, market information, as well as weeding and thinning. Meanwhile, information like weather information, government policies and schemes on agriculture, post-harvest techniques, storage of crops, and rent of farm machineries were used mostly on annual basis by majority of the farmers. This agreed with the work of Syiem and Raj (2015) on the access and usage of ICTs for agriculture and rural development by the tribal farmers in Meghalaya State of North-East India

Table 5: Frequency of Use of Information by Farmers in Iwo Senatorial District of Osun State

S/No	Information	Frequency							Mean	SD
		7	6	5	4	3	2	1		
a.	Modern cultivation system	126 26.3%	165 34.4%	9 1.9%	7 1.5%	10 2.1%	154 32.1%	--	4.76	2.19
b.	Seeds and planting materials	106 22.1%	177 36.9%	138 28.8%	12 2.5%	36 7.5%	--	--	5.52	1.88
c.	Diseases and pest management	57 11.9%	265 55.2%	44 9.2%	2 0.4%	8 1.7%	38 7.9%	2 0.4%	4.83	2.28
d.	Manure and fertilizer management	11 2.3%	99 20.6%	156 32.5%	36 7.5%	6 1.3%	124 25.8%	--	3.88	2.00
e.	Weather information	4 0.8%	95 19.8%	18 3.8%	7 1.5%	119 24.8%	163 34.0%	1 0.2%	2.92	1.95
f.	Soil and water conservation	3 0.6%	78 16.3%	8 1.7%	9 1.9%	123 25.6%	209 43.5%	10 2.1%	2.84	1.70
g.	Irrigation	--	2 0.4%	--	--	2 0.4%	17 3.5%	314 65.4%	0.76	0.64
h.	Government policies and schemes on	--	21 4.4%	4 0.8%	4 0.8%	9 1.9%	274 57.1%	33 6.9%	1.60	1.37

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S/No	Information	Frequency							Mean	SD
		7	6	5	4	3	2	1		
	agriculture									
i.	Post-harvest techniques	34 7.1%	37 7.7%	8 1.7%	127 26.5%	45 9.4%	213 44.4%	--	3.27	1.68
j.	Market information	3 0.6%	183 38.1%	7 1.5%	2 0.4%	41 8.5%	187 39.0%	1 0.2%	3.46	2.20
k.	Weeding and thinning	1 0.2%	146 30.4%	133 27.7%	107 22.3%	14 2.9%	51 10.6%	--	4.42	1.65
l.	Storage of crops	--	83 17.3%	83 17.3%	56 11.7%	33 6.9%	166 34.6%	2 0.4%	3.27	1.93
m.	Weaning	--	7 1.5%	53 11.0%	72 15.0%	--	17 3.5%	37 7.7%	1.391	2.00
n.	Animal Feeds	10 2.1%	126 26.3%	--	--	1 0.2%	11 2.3%	32 6.7%	1.84	2.70
o.	Transportation of farm produce	8 1.7%	201 41.9%	2 0.4%	--	36 7.5%	176 36.7%	2 0.4%	3.61	2.26
p.	Rent of farm machineries	2 0.4%	66 13.8%	9 1.9%	--	143 29.8%	174 36.3%	2 0.4%	2.55	1.77
q.	Weather forecasts	15 3.1%	4 0.8%	--	5 1.0%	4 0.8%	183 38.1%	26 5.4%	1.15	1.53

Challenges Confronting the Use of Information among Farmers

In Table 6, high rate of illiteracy with a response rate of 89.6% and a mean value of 3.56 was one of the major problems encountered by farmers in using agricultural information. This was closely followed by inadequate transport facility as agreed by 95.9% respondents (Mean=3.39). Agricultural information on radio and TV being aired at odd hours was the least of the challenges as indicated by only 3.8% of the total respondents (mean=1.35). Some other challenges being experienced with information use by the farmers included – inaccessibility

to access formal channels of information, low level of income, lack of personal interest and special knowledge, and, inadequate contact with extension agents. According to Syiem and Raj (2015), the constraint analysis is however important to reach out the voice of the farmers and the problems faced by them in order to enable planners, administrators, development workers and policy makers to implement developmental programmes and interventions which could cater to the needs of the farmers and benefit them in an improved manner.

Table 6: Challenges to the Use of Agricultural Information in Iwo Senatorial District of Osun State

S/N	Challenges	SA	A	D	SD	Mean	S.D
1.	Inability to access formal channel of information	255 46.9%	105 21.9%	133 27.7%	4 0.8%	3.09	1.01
2.	Low level of income	305 63.5%	131 27.3%	--	--	3.36	1.16
3.	Lack of personal interest and special knowledge	153 31.9%	170 35.4%	140 29.2%	3 0.6%	2.93	0.95
4.	Inadequate transport facility	249	211	--	--	3.39	0.86

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S/N	Challenges	SA	A	D	SD	Mean	S.D
		51.9%	44.0%				
5.	Inadequate contact with extension agents	277 57.7%	23 4.8%	142 29.6%	4 0.8%	3.05	1.24
6.	High rate of illiteracy	405 84.4%	25 5.2%	7 1.5%	--	3.56	1.16
7.	Lack of rural electrification	28 5.8%	128 26.7%	68 14.2%	217 45.2%	1.77	1.11
8.	Agricultural information on radio and TV is always aired at odd hours	9 1.9%	9 1.9%	155 32.3%	275 57.3%	1.35	0.72
9.	Inaccessibility to rural areas by the NGOs	4 0.8%	92 19.2%	264 55.0%	88 18.3%	1.89	0.82
10.	Ignorance of government responsibility	36 7.5%	51 10.6%	276 57.5%	84 17.5%	1.94	0.93

CONCLUSION AND RECOMMENDATIONS

The study revealed that farmers in Iwo Senatorial District of Osun State have limited agricultural information literacy skills. They used information mostly for the advancement of primary production of agriculture while lagging behind in the use of information to achieve sustainable agriculture and to achieve self-improvement. The study, therefore, recommends that extension agency should provide farmers with up-to-date information and technology that can improve their skills in all these areas that they are deficient in relevant information. There is urgent need to intensify adult literacy campaign among the rural farmers. Literacy is capable of facilitating their acceptance and use of innovations presented to them.

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