

**N-POWER AGRO ADVISORS' KNOWLEDGE OF AGRICULTURAL DEVELOPMENT
PROGRAMME (ADP) COMMUNICATION METHODS IN AKOKO AREA OF ONDO STATE,
NIGERIA**

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ABSTRACT

The study examined the knowledge of N-power Agro Advisors of Agricultural Development Programme (ADP) communication methods used for information dissemination to clientele. A two stage sampling technique was used to sample 120 respondents and they were interviewed. Binary logistic regression model was used for data analysis. Results showed that respondents had high knowledge of the use of local contact farmers and Small Plot Adoption Technique but they frequently used contact farmers. Age (wald = 3.186), education (wald = 2.913) and experience in extension works (wald = 3.116) were the significant determinants of the high knowledge level of the communication methods.

Keywords: N-power, agro advisors, communication methods, knowledge

INTRODUCTION

The welfare of the rural people is tied to agriculture. This is because majority of them derived their livelihood primarily from agriculture. In the past, Nigeria was self sufficient in food production and many of the food produced were done in rural area. This makes rural areas indispensable in food production. However, the oil boom of early 70s puts Nigeria in the current state of food importation due to the general neglect of agricultural sector (Matemilola and Elegbede, 2017). For food supply to meet the demand of the teeming population, Nigeria agricultural extension policy planning and implementation should be seriously addressed, so as to boost productivity (Abdu-Raheem, 2014).

Over the years, agricultural extension has been at the fore-front in the delivery of adequate information to farmers for increased productivity. According to Agbamu (2007), agricultural extension service delivery all over the world has been concerned with communicating research findings and improved agricultural practices to farmers. The efficiency with which these information and practices are conveyed to farmers to a large extent would determine the level of agricultural productivity. Extension organizations have been concerned with what should be the appropriate means and approaches in getting the right agricultural information to the end-users (farmers).

Agricultural extension is already being acknowledged as information and knowledge sharing whereby innovations and improved methods and techniques of planting crops and rearing animals are made available to the farmers in their settlements through services that come in the form of advice and assistance to help them improve their methods of production, marketing and processing (Olaitan and Omomia, 2006). Globally, the objective of agricultural extension remains the development of rural populaces and raising the standard of living of the farmers through increased farm production and income.

In Nigeria, the significance of agricultural extension was acknowledged as far back as 1972 when Agricultural Development Project (ADP) started with about 66% of the funding by the World Bank, 20% by the federal government and 14% by the state government in addition to the payments of salaries of local staff (Auta and Dafwang, 2010). This was done primarily to boost food production and raising smallholder farmers' income. The operations started fully in 1975 in three states of the federation with three pilot projects. The success of the pilot projects lead to the expansion to other states in late 70s and by 1984, all states of the federation were implementing the integrated approach of the scheme (Auta and Dafwang, 2010). After the World Bank withdrew funding in the early 90s, the World Bank assisted ADP was transformed to the respective States' ADP across the 36 states of Nigeria and they still continue with the modus operandi of the ADP under the finance of the World Bank even till now (Uzuogu and Ataise, 2015). During the ADP projects implementation under the World Bank, certain communication methods were used. These communication methods which were used to reach farmers on variety of improved agricultural practices both in crop production and animal rearing ranged from inter and intra-personal such as the use of bulletin, Training and Visit system (T & V), Focus Group Discussion (FGD), Small Plot Adoption Techniques (SPAT), Fortnightly Technology Review Meeting (FNTRM), the use of radio and television, local leaders, and in-depth interview among others (Enwere and Madukwe, 2002). All these communication methods were adjudged as effective in communicating vital and useful information to the farmers. However, many ADP staff members continue

to retire without replacement. This has made the organization to be short of staff and the need for alternative strategies to fill the vacant positions in ADP lead to the recruitment of N-power Agro-Advisors in all the 36 states of the federation including the Federal Capital Territory in 2017.

The N-power agro-advisors are graduates from the tertiary institutions recruited into the Ministry of Agriculture and posted to the 36 states of the federation to fill the vacuum created due to the non-recruitment into the ADP after the withdrawal of the World Bank funding. N-Power addresses the challenge of youth unemployment by providing a structure for large-scale and relevant work skills acquisition and development while linking its core and outcomes to fixing inadequate public services and stimulating the larger economy (Aderonmu, 2017). N-Power aspires to provide a platform where most Nigerians can access skills acquisition and development. The scheme is designed for 2 years with three (3) categories such as N-power teaching, health and agro for teaching, health and agricultural sectors, respectively.

N-power Agro Advisors work basically on the dissemination of information and serves as middle men between agricultural extension agency and the farmers (Longe, 2017). They follow steps involved in the ADP scheme but they are expected to have a little bit higher propensity to skills and innovations because they are graduates. Though, many of them do not have a degree in agriculture. The knowledge of certified ADP communication methods used to reach the farmers become very necessary in order to ensure that they influence farmers' livelihoods in the desirable directions and promotes the goal of extension organizations. This therefore serves as the basis for this study. The study was conducted to examine the knowledge of Npower Agro Advisors on the commonly used ADP communication methods with a view to recommending to the master trainers of the Npower Agro Advisors the competence of the advisors the use of the communication methods used to disseminate information to farmers in Akoko area of Ondo State, Nigeria. Specifically, the study described the demographic characteristics of respondents and analysed the frequency and perceived ease of use ADP communication methods in their interactions with farmers in the study area.

METHODOLOGY

The study was carried out in the four (4) local government in Akoko area, Ondo State. Ondo State was created in 1976 out of the defunct Western State and it has 18 local government areas and Akoko area has 4 out of these 18 LGAs. According to the National Population Census (2006), the state has a population of 3,441,024. The State is bounded in the north by Ekiti

and Kogi States; in the east by Edo State; in the west by Oyo and Ogun States and in the south by the Atlantic Ocean. The tropical climate of the state is broadly of two seasons which are the rainy season between April and October and dry season between November and March. A temperature throughout the year ranges between 21 °C to 29 °C and humidity is relatively high. The annual rainfall varies from 2,000mm in the southern areas to 1,150mm in the northern areas. The State enjoys luxuriant vegetation with high forest zone (rain forest) in the south and derived-savannah forest in the northern fringe. The population of Akoko as at 2011 was approximately 815,360.

A two- stage sampling procedure was used in selecting respondents for the study. The first stage involved a purposive sampling technique of all the four local Government Areas based on their intensity of farming compared to other LGAs in Ondo State, while the second stage involved a simple random sampling of 30 N-power agro advisors in each of the four (4) local government area to make a total of 120 respondents used for the study. Structured and validated questionnaire was used to elicit data for the study and data collected were described with frequency, percentages and mean while binary logistic regression was used to analyse the data. Variables were appropriately measured to suit the analytical models used. Knowledge level was dichotomized to serve as a dependent variable for the binary logistic analysis using the grand mean score while the independent variables were measured as either interval or dichotomous. For example, sex (male =1 and otherwise = 0), age (years given), education (HND/BSc= 1, others = 0) while knowledge was categorized as high = 1 and low = 0.

RESULTS AND DISCUSSION

Socio-economic characteristics

The age distribution of the N-power agro advisors in Table 1 show that 36.7% were less than 30 years of age, 75% were between 30 and 40 years of age while only negligible percent (0.8%) were above 40 years. The mean age of the respondents was 28.4 years. This indicates that most of the N-power agro advisors were young in their productive ages and are likely to be more receptive to new technologies for increased agricultural production. They are likely to learn faster with high rate of assimilation as a result of their age (Levis, 2009). Similarly, Adesiji (2004) asserted that age affects perception, attitude, and adoption of innovation, thus, it may therefore serves as a critical factor to the respondents' knowledge of a practice. Although, other factors may play very important roles in the adoption of innovations and knowledge of a practice but age has been identified as a variable that

may be relevant to how respondents' knowledge of ADP communication methods would be used to increase food production in the study area by influencing farmers in the desirable direction. Also, it was revealed that 32% had between 1-3 members, 55% had between 4 and 6 members and 10.8% had household size of 7-10 members. The average household size of the Npower participant was 5 members. The implication of this finding is that most of the Npower agro advisors had more than 4 family members and this may serve as a way of encouraging them to be more committed to their assigned jobs. Hence, they may be eager to learn very fast with high knowledge of the communication methods used for information dissemination.

On the marital status, it was revealed that 46.77 were single, while 53.3% were married. This means that most of the respondents were married. It is therefore ascertained that their marital status may contribute largely to their knowledge of the communication

methods because married people are more prone to taking full responsibility of things because they already have responsibilities that lie on them. This study of Ojo and Jibowo (2008) which stated that married people are more responsible and committed to the duties than their unmarried counterparts. The study reveals that 14.2% of the respondents had ND, 39.2% had HND, 32.5% had B.SC and 12.5% had M.sc degrees. This simply means that all the N-power agro advisors are educated with a minimum of HND. This meets the educational requirements of the scheme. According to Gama (2013), the levels of awareness and adoption of agricultural innovations are affected by the literacy status. Those who are literate are expected to be more innovative because of their ability to get information more quickly and their ability to take more risk. This may therefore assist the advisors in improving their knowledge level in the use of ADP communication methods. Ogunhari and Aromolaran (2014) noted that education is needed to enhance knowledge which produces productivity.

Table 1: Selected socio-economic characteristics of N-power agro-advisors

Variable	F	%	Mean
Age (year)			
<30	44	36.7	
30-40	75	62.5	28.4
>40	1	0.8	
Marital Status			
Single	56	46.7	
Married	64	53.3	
Education			
ND holder	17	14.2	
HND holder	47	39.2	
BSC holder	39	32.5	
MSC holder	15	12.5	
Household size			
1- 3	41	34.2	
4 – 6	66	55.0	5.0
7 – 10	13	10.8	

Source: Field survey, 2019.

Knowledge of the ADP communication methods and their level of knowledge

Results in Table 2 show most of the respondents fell in the moderate knowledge of the identified communication methods. For instance, 51.4% had moderate knowledge of FGD method, 50.0% were knowledgeable about the use of radio as a

communication method while 53.6% had a moderate knowledge of FNTRM. In a similar trend, about 58.2% had high knowledge of the use of local contact farmers. For the level of knowledge, it was observed that only the use of local contact farmers (Mean = 2.5) and Small Plot Adoption Technique, SPAT (Mean = 2.1) recorded high knowledge level.

The findings show that N-power agro-advisors had high knowledge level only the use of local contact farmers and SPAT. The reason for this might be due to the frequency of using these types of agricultural extension communication methods among extension agents. Another reason may be due to the characteristics of the method. Methods with interesting characteristics such as SPAT and the use of local leaders do not require serious extension agents' effort to ensure that appropriate information is disseminated to farmers. The local contact farmers do most of the work of communicating useful information to other extension clientele once the right information is passed to him/her while in the case of SPAT, once the plot is cited, all other clientele are free to go there in order to

get the adequate information for themselves with or without the presence of any extension agents.

The knowledge of N-power agro advisors in the communication methods of interacting with farmers may be very germane to the farmers' adoption behavior. This has been documented in research to have significant influence on farmers' rate of adoption of agricultural practices as submitted by Asiabaka and Owens (2002) which stated that for farmers to adopt improved technologies, they must be aware of the technologies, have a valid and up to date information on the technologies and secure the knowledge of the applicability of the technologies to their farming system through technical assistance by the extension experts.

Table 2: Knowledge of ADP communication methods

Communication channels	High	Medium	Low	Mean
Focus Group Discussion	29 (27.1)	55 (51.4)	23 (21.5)	1.9
In dept. interview	32 (33.7)	47 (49.4)	16 (16.8)	1.9
Radio	26 (28.2)	46 (50.0)	20 (21.7)	1.9
Television	44 (47.8)	30 (32.6)	18 (19.6)	1.7
Fellow farmers	26 (26.7)	49 (52.1)	19 (20.2)	1.9
Local contact farmers	57(58.2)	29 (29.6)	12 (12.2)	2.5
Training and visit	38 (38.4)	38 (38.4)	23 (23.2)	1.8
Use of local leaders	31(35.6)	31 (35.6)	25 (28.7)	1.9
SPAT	46 (48.9)	40 (42.6)	8 (8.5)	2.1
FNTRM	30 (35.7)	45 (53.6)	9 (10.87)	1.7

Source: Field survey, 2019

Mean \geq 2.0 = high

Figures in parentheses are percentages

Frequency of use of the ADP communication methods

The frequency of use of the identified ADP communication methods was described in Table 3. Results show that only the use of local contact farmers (Mean = 2.6) was frequently used communication method among the N-power agro advisors in the study area. This may not be unconnected to the cheap characteristics of this type of extension communication method compared to the likes of Focus Group Discussion, Training & Visit, establishment of SPAT, regular meeting such as fortnightly technological review meeting, and the use of radio among others time and resource consuming method. The use of T & V as

an ADP communication method was most popular during World Bank era and it has limitation such as high cost of implementation, difficulty in assessing clientele due to poor road condition and ability to meet farmers at convenient place and time as reported by Musa *et al.* (2013) and Asiabaka and Kenyon (2002). The study submitted that T & V system of extension was vigorously promoted by the World Bank which supplied largest percent of the programme with efficient and adequate mobility and logistics. The inability of the Nigerian government to sustainably finance ADP may be responsible for the current food security status of the country.

Table 3: Frequency of use of ADP communication methods

Communication	Everyday	Weekly	Occasionally	Rarely	Mean
Focus group discussion	33 (28)	61 (51.7)	22 (18.6)	2 (1.7)	1.9
In dept interview	24 (22.2)	37 (37.3)	26 (26.2)	12 (12.1)	2.2
Radio	29 (27.6)	45 (42.8)	27 (25.7)	4 (3.8)	2.1
Television	45 (45.0)	21 (21.0)	30 (30.0)	4 (4.0)	1.9
Fellow farmers	40 (39.2)	31 (30.1)	25 (24.5)	6 (5.9)	2.1
Local contact farmers	46 (42.6)	38 (35.1)	20 (18.5)	4 (3.7)	2.6
Training and visit	37 (34.2)	39 (36.1)	30 (27.8)	2 (1.9)	2.0
Use of local leaders	38 (35.8)	41(38.7)	27 (25.4)	-	1.9
SPAT	32 (30.5)	49 (46.7)	24 (22.9)	-	1.9

Source: Field survey, 2019

Mean \geq 2.5 = high

Figures in parentheses are percentages

Perceived ease of use of ADP communication methods

Perceived ease of use was used to analyse how easy it is for the N-power agro advisors to use the identified communication methods. It was observed that only the use of local contact farmers (Mean = 2.8) was found easy to use by the respondents among all the other communication methods. The easy of using local contact farmers may be attributed to the use of ICT tools such as telephone related internet enabled applications to disseminate information without physical contact and feedback is equally easy to receive through this method. Most times, the extension experts may not necessarily need to travel but the local contact farmers who in most cases are opinion leaders with sound education and level of traveling travel out

of their local communities to interact with agricultural extension workers. Conveniently, the use of local contact farmers as an ADP communication method can be used by the respondents without much stress. The findings conform to that of Agufana *et al.* (2018) and Agufana (2021) which reported the ease of use of ICT in teaching has lead to global reform and development in educational sector worldwide. This similar reform may be experienced also in agricultural extension organizations in Nigeria with the employment of graduates of any discipline into the N-power scheme to perform the work of extension. These graduates would definitely bring in their expertise in their various fields of studies in reforming the system. Unfortunately, it is a two year programme but the impact would be felt.

Table 4: Perceived ease of ADP communication methods

Communication	Very easy	Easy	Not so easy	Difficult	Mean
Focus group discussion	40 (33.3)	66 (55.0)	12 (10)	2 (1.7)	1.8
In dept interview	28 (26.7)	50 (47.6)	25 (23.8)	2 (1.9)	2.0
Radio	41 (38.7)	56 (52.8)	9 (8.5)	0	1.7
Television	30 (29.4)	45 (44.1)	25 (24.5)	2 (2.0)	2.0
Fellow farmers	32 (33.3)	43 (44.8)	21 (21.9)	0	1.9
Local contact farmers	40 (36.4)	49 (44.5)	21 (19.9)	0	2.8
Training and visit	36 (30.0)	52 (43.3)	24 (20)	2 (1.6)	1.9
Use of local leaders	46 (45.1)	40 (29.2)	14 (13.7)	2 (1.6)	1.7
SPAT	45 (40.9)	53 (48.2)	10 (9.1)	2 (1.1)	1.7
FNTRM	41 (40.1)	51 (50.0)	6 (5.8)	4 (3.9)	1.7

Source: Field survey, 2019

Mean \geq 2.5 = easy

Figures in parentheses are percentages

Determinants of Knowledge level in ADP Communication Methods

Evidence in Table 5 shows that age (wald = 3.186), education (wald = 2.913) and experience in extension works (wald = 3.116) were the significant determinants of high knowledge level of N-power agro-advisors in ADP communication methods at 0.05 level of significance. The large log likelihood of 537.59716 indicates the fitness of this model for this analysis and the R² value of 0.6439 further confirmed that significant proportion of the N-power advisors' knowledge level can be explained by the significant determinants. Specifically, the old ratio of 1.4007 for

age shows that a unit change in age could explain as high as 40.0% variation in the knowledge level of respondents. Similarly, 24.0% and 28.8% variations in knowledge of communication methods are attributable to education and experience of respondents in extension works. This finding is in consonant with the findings of extant studies such as Matemilola and Elegbede (2017), Longe (2017), Yahaya (2003) and Enwere and Madukwe (2002) in their studies at different times and locations supported the significant of demographic variables such as age and education as critical factors that promote learning and knowledge acquisition.

Table 5: Determinants of N-power advisors' knowledge of ADP communication methods

Regressors	Coeff.	Wald	Sig.	Odd ratio
Age (year)	0.3370	3.1860*	0.0060	1.4007
Marital Status	0.1810	1.4720	0.1520	1.1984
Education	0.2170	2.9130*	0.0030	1.2423
Household size	0.1260	1.5180	0.3230	1.1343
Experience of ext	0.2530	3.1160*	0.0040	1.2879

Source: Field survey, 2019

Number of obs = 120

LR chi2(3) = 291.41

Prob > chi2 = 0.0000

Log likelihood = -537.59716

Pseudo R² = 0.6439

CONCLUSION

The use of N-power agro advisors is a good government initiative considering the limited number of extension agents in Nigeria. However, the knowledge of the recruited N-power beneficiaries to carry out the work of extension workers is critical to the success or failure of the task of improving food production and farmers' living standards. Based on this study, it was established that the recruited N-power agro beneficiaries had adequate education that may promote their ability to communicate effectively and efficiently with the clientele but they only had high knowledge of the use of local contact farmers in all the available communication methods that were known as ADP strategies of reaching clientele. The use of local contact farmers was also found to be easily used by the respondents while age, education and their previous experience in agricultural extension activities determined their knowledge of ADP communication methods. The study recommends that ADP staff should expose the N-power agro advisors to the other communication methods such as the fortnightly technological review meetings, the use of community leaders, FGD, in-depth interviews and other key extension methodological approaches with the believe

that these graduates of different disciplines will be able to use their experience to modify and adapt the methods for a reformed extension system.

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