

Farmers and Extension Personnel View of Constraints to Effective Agricultural Extension Services Delivery in Oyo State, Nigeria

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Abstract

This study examined farmers' and extension personnel's View of constraints to effectiveness of agricultural extension services in Oyo State, Nigeria. Simple random sampling technique was used to select 100 farmers and 20 extension personnel. Data subjected to descriptive and correlation analyses were collected using questionnaire and interview schedule. Findings reveal that constraints to effectiveness of extension service include inadequate extension equipment/facilities ($\bar{x} = 3.73$), insufficient extension personnel ($\bar{x} = 3.44$) and poor planning of extension programme ($\bar{x} = 2.8$). About 54% of farmers perceived that extension service is ineffective while about 46% of extension personnel perceived it to be effective. Results show a weak correlation between personal characteristics of farmers and their perception towards the effectiveness of agricultural extension services ($r = 0.081$, $p < 0.05$). It is concluded that constraints to effective extension service might not significantly affect the peoples' view of extension effectiveness, however, the less the constraints to extension services the better the perception of extension services.

Keywords: Extension, Effectiveness, Constraints, Perception and Agriculture

Introduction

Over the years, agricultural extension has been at the fore-front in the delivery of adequate information to farmers for increased productivity. According to Apantaku and Oyegunle (2016) and Agbamu (2007), agricultural extension service delivery all over the world has been concerned with communicating research findings and improved agricultural practices to farmers. Agricultural extension service is saddled with the responsibility of disseminating innovation that could transform agricultural production to ensure food security and economic development of agrarian community. The roles of extension today go beyond technology transfer and training of farmers but include assisting farmer to form groups, dealing with marketing issues, addressing public interest issues in rural areas such as resource conservation, health, monitoring of food security and agricultural production, food safety, nutrition, family education, and youth development and partnering with a broad range of service providers and other agencies (Ijeoma and Adesope, 2015).

Information and knowledge are very vital in agricultural development of any community and where they are poorly disseminated the community is at a risk of development. Omotayo (2005) observed that agricultural extension depends largely on information exchange between farmers and broad range of other actors who are the front line extension workers that are the direct link between farmers and other actors in the agricultural knowledge and information system (AKIS). Ijeoma and Adesope (2015) opined that the mission of the extension service is to provide research-based information, educational programs, and technology transfer and needs of the people, enabling them to make informed decisions about their economic, social and cultural well-being. When farmers lack access to knowledge and information that would help them achieve maximum agricultural yield, or relevant information are not disseminated to them on agricultural activities/practices, they not only grope in the dark, but are driven by circumstances to migrate about in search of formal employment, as the only option for survival, which will eventually reduce agricultural activities in the country (Munyua, 2000).

Agricultural extension aims to disseminate relevant information for effectiveness and efficiency of agricultural activities but is confronted with certain constraints. Codjoe,

Brempong and Boateng (2013) identified inadequate interaction with researchers and extension agents; insufficient training programs for farmers; low general educational level of farmers and the delays in information delivery as pressing constraints to agricultural information in Ghana while Iwena (2008) identified absence of credit facilities, insufficient motivation of the personnel, inadequate resources, poor transportation network, high level of farmers' illiteracy and language barriers as some of the constraints faced by farmers in Nigeria. According to Munyua (2000) lack of access to basic agricultural knowledge and information by rural farmers can be assumed to be as a result of some constraints to effectiveness of agricultural extension activities which have made these farmers to stick to their old traditional methods of farming system and animal husbandry practice, hence resulting in poor crop and livestock productivity. Thus, this study was designed to investigate constraints to effectiveness of agricultural extension activities in Oyo East Local Government Area (LGA) of Oyo State.

Objectives of the study

The objectives of the study were to:

- describe personal characteristics of farmers and extension personnel in the study area;
- ascertain farmers' and extension personnel's perception towards the effectiveness of agricultural extension services;
- identify constraints to effectiveness of agricultural extension service in the study area; and
- identify possible solutions to the constraints affecting the effectiveness of agricultural services.

Hypothesis of the Study

There is no significant association between the personal characteristics of the respondents and their perception towards the effectiveness of agricultural extension services.

Methodology

Study Area

Oyo State is an inland state located in the south-west geopolitical zone of Nigeria. It was one of the three states carved out of the former Western state of Nigeria in 1967 and was later sub-divided into Osun and Oyo States in 1991. The state covers a total of 27,249 square kilometers of land mass. The State is bounded in the South by Ogun State and in the North by Kwara State, in the West is bounded partly by Ogun State and Republic of Benin. Oyo State consists of 33 LGAs. Some of the inhabitants are involved in farming activities such as planting of crops and rearing of livestock like cattle, goats, sheep, poultry; processing and marketing of farm produce, fishing, trading, particularly in the rural areas. The State has Agricultural Development Programme known as Oyo State Agricultural Development Programme (OYSADEP) where extension agents serve to disseminate information from research institutes through media, face-to-face, and/or group methods to the farmers (OYSADEP, 2015).

Sampling procedure and data collection

A multi stage sampling technique was used to select the respondents. A total of 100 farmers and 20 extension agents were selected for the study. The first stage involves random sampling of Oyo zone from four Agricultural Development Programme zones in Oyo State (OYSADEP, 2015); the second stage involves random sampling of two blocks from the selected zone to make four blocks; the third stage includes randomly sampling of one cell from the selected blocks to make four cells; 5 villages were selected from the chosen cells using simple random sampling to make 20 villages. From the selected villages, 5 farmers each were selected from the villages to make 100 farmers. Also, five extension personnel were randomly selected from the four blocks to make 20 extension personnel. Primary data were obtained using a questionnaire for extension personnel and interview schedule for farmers.

Data Analysis

Constraints to effectiveness of agricultural extension services were measured using High constraints (3), Low constraints (2) and Not a constraint (1) while perception of respondents was measured using a four (4) point likert scaling based on strongly Agreed (4), Agreed (3), Disagreed (2) and strongly Disagreed (1) for positive questions and based on strongly Agreed (1), Agreed (2), Disagreed (3) and Strongly Disagreed (5) for negative questions. The data collected were subjected to descriptive statistics such as frequency distribution, percentage, mean and chi-square analysis and Pearson Product Moment Correlation (PPMC).

Results and Discussion

Personal characteristics of the respondents

The result of the personal characteristics indicates that the majority (92%) of farmers and all (100%) extension agents were within the productive age of 25 years and above (Table 1). Onasanya (2009) classified productive age of farmers to be between 20 and 55 years. Also, Ezeh (2013) reported the productive age range of extension agents to be between 40 and 60 years of age. Ibitoye (2013) also asserted that only those farmers within the productive age group of 20-50 years are likely to possess the necessary strength to carry out farming operations. This implies that the majority of the respondents are still within the productive age. Table 1 also indicates that the males (70%) constitute the majority of the respondents. This result agrees with Ibitoye (2013) who reported that more men were found in farming in Kogi State than women. The high percentage of male farmers in the state is expected because farming in Nigeria is done manually by the rural farmers and most of the major operations require a lot of energy which may be too tedious for most women.

Also, about 5% (farmers) and 30% (Extension agents) had secondary education while 25% (farmers) had primary education. Only 10% of the farmers and 70% of the extension agents had tertiary education. However, 21% (farmers) had no formal education and 39% (farmers) had adult education. It is thus obvious that the levels of education of farmers in the state are generally high. This agrees with the work of Ibitoye and Onimisi, (2013) who found out that the levels of education of farmers are generally high in Kogi State. The level of education of extension agents agrees with

the findings of Ezeh (2013) who found out that the majority of extension agents completed post-secondary education

Table 1: Socio-economic characteristics of respondents

Characteristics	Farmers(100)		EA(20)	
Age (years)				
< 25	8	8	-	-
>25	92	92	20	100
Sex				
Male	70	70.0	10	50
Female	30	30.0	10	50
Religion				
Islamic	38	38.0	7	35
Traditional	6	6.0	-	-
Christianity	56	56.0	13	65
Educational level				
No formal education	21	21.0	1	5.0
Adult education	39	39.0	5	25
Primary education	25	25.0	1	5.0
Secondary education	5	5.0	6	30
Tertiary education	10	10.0	7	35
Marital status				
Single	19	19.0	6	30
Married	61	61.0	14	70
Divorced	10	10.0	-	-
Widowed	10	10.0	-	-
Experience (years)				
Less than 5years	26	26.0	9	45
5-10years	35	35.0	3	15
Above 10years	39	39.0	8	40
Household income				
less than ₦100,000	17	17.0	8	40
₦100,000-₦500,000	12	12.0	3	15
Above ₦500,000	71	71.0	7	35

EA: Extension Agents, %: percentage.

Perception of farmers and extension personnel towards the effectiveness of agricultural extension services

Result shows that the majority (86%) of the farmers and extension agents (80%) indicated that insufficient equipment needed to disseminate information reduces the rate of effectiveness of extension services. This agrees with the findings of Gwary, Donye, Wakawa and Shallangwa (2013) that lack of insufficient equipment was a major factor that hinders the delivery of extension services to the respondents. The majority (94%) of the farmers and extension agents (80%) agreed that lack of motivation towards extension personnel makes the extension service ineffective. Also, about 53% of the farmers and 80% of extension agents were of the opinion that agricultural extension services are good and help to improve farming activities; and about 94% farmers and three quarter of extension agents agreed that agricultural extension services help in training farmers on better ways of farming. Also the tables indicate that about 97% of farmers and 70% of extension agents disagreed that poor transportation network does not affect extension service delivery; the majority 96% of the farmers and three quarter of extension agents disagreed that extension services can be effective without government support. The results further showed that about 95% of farmers and 75% of extension agents were against the statement that insufficient extension personnel do not hinder the effectiveness of extension service delivery. Lastly, about 94% of farmers and 60% of extension agents disagreed that insufficient fund is not a barrier for the effectiveness of agricultural extension service. This is an indication that insufficient fund is a barrier to effectiveness of agricultural extension service. This agrees with the report of Agbamu (2005) that Nigeria extension service is bedevilled by several problems which include inadequacy and instability of funding and poor logistic support for field staff. Omotayo (2004) reported that since the late 1990's, inadequate funding has led to the virtual collapse of research and extension institutions that provided services to small farmers and rural communities in Nigeria.

Table 2: Distribution of farmers according to perception towards the effectiveness of agricultural extension services

Variables	Mean
Agricultural extension services are good and help to improve farming activities.	2.5
Agricultural extension services help in training farmers on better ways of farming.	3.3
Lack of motivation towards extension personnel makes the extension service ineffective.	3.4
Insufficient aids needed to disseminate information reduce the rate of effectiveness of extension services.	3.4
Poor transportation network does not affect extension service delivery.	1.5
Extension services can be effective without government support.	1.5
Insufficient extension personnel do not hinder the effectiveness of extension service delivery.	1.6
Insufficient fund is not a barrier for the effectiveness of agricultural extension service.	1.6

Table 3: Distribution of extension personnel according to perception towards the effectiveness of agricultural extension services

Variables	Mean
Agricultural extension services is good and helps to improve farming activities	2.9
Agricultural extension services helps in training farmers on better ways of farming	3.4
Lack of motivation towards extension personnel makes the extension service ineffective	3.2
Insufficient aids needed to disseminate information reduce the rate of effectiveness extension services in Oyo east local government	3.0
Poor transportation network does not affect extension service delivery	2.9
Extension services can be effective without government Support	3.1
Insufficient extension personnel does not hinder the effectiveness of service delivery	0.6
Lack of capital does not affect the effectiveness of extension service delivery	2.8

Constraints to effectiveness of agricultural extension services

Major constraints to effectiveness of extension service include inadequate extension equipment ($\bar{x} = 3.73$), insufficient extension personnel ($\bar{x} = 3.44$) and improper planning of extension programme ($\bar{x} = 3.3$) (Table 4). This agrees with the findings of Gwary, Donye, Wakawa and Shallangwa (2013) that lack of or inadequate extension equipment was a major factor that hinders the delivery of extension services to the respondents

Table 4: Distribution of the respondents according to perceived constraints to effectiveness of agricultural extension services

Variables	Mean
Improper planning of extension programme	3.3
Large scope of area to cover by extension personnel	2.4
Insufficient extension personnel	3.44
Inadequate extension equipment needed to disseminate information	3.73
Lack of motivation	2.5
Insufficient fund from the government	2.3

Solution to the constraints to effectiveness of agricultural extension services

Results from the findings (Table 5) indicate that the majority of the respondents suggested the following as solutions to constraints to effectiveness of agricultural extension services; Agricultural extension centres should be equipped with instructional materials for disseminating agricultural information or new innovations, Funds should be provided for extension personnel in order to work effectively, Extension programmes should be planned well before been taking out to the farmers, Employment of more extension personnel to ease the effectiveness of extension service delivery, the area of scope to be covered by extension personnel should not be too wide for individual extension personnel so as to promote effective agricultural extension service delivery and Farmers should be ready to work with the extension personnel and as well accept the services given to them.

Table 5: Distribution of respondents according to the solutions to the constraints to effectiveness of agricultural extension services

Variables	Mean
Agricultural extension centres should be equipped with instructional materials for disseminating agricultural information or new innovations.	3.84
Funds should be provided for extension personnel in order to work effectively.	3.54
Extension programmes should be planned well before been taking out to the farmer	3.61
Employment of extension personnel to ease the effectiveness of extension service delivery.	3.35
The scope of area to be covered by extension personnel should not be too wide for individual extension personnel so as to promote effective agricultural extension service delivery.	3.41
Farmers should be ready to work with the extension personnel and as well accept the services given to them.	3.46

Relationship between the personal characteristic of respondents and perception towards the effectiveness of agricultural extension service

In Table 6, result of correlation analysis showed that the age ($r=0.20$) of the rural farmers has an effect on their perception towards the effectiveness of agricultural extension services at ($P<0.05$). Table 6 showed that the personal characteristics of rural farmers has no significant ($P<0.05$) relationship with their perception towards the effectiveness of agricultural extension services with sex ($\chi^2=0.93$), religion ($\chi^2=0.67$), educational level ($\chi^2=4.85$) and marital status ($\chi^2=1.57$). This implies that the personal characteristics of rural farmers in Oyo East LGA make them to have a favourable perception on the effectiveness of agricultural extension service in the study area. Also, the result of chi-square revealed that the personal characteristics of the extension personnel has no significant effect on their perception towards the effectiveness of agricultural extension services ($P<0.05$) (Table 8)

Table 6: Relationship between personal characteristics of farmers and their perception towards the effectiveness of agricultural extension service delivery

Variables	r
Age	0.20*
Farming experience	0.09
Income	0.75

$P \leq 0.05$; r: correlation coefficient

Table 7: Relationship between the personal characteristics of farmers and perception of the effectiveness of agricultural extension service delivery

Variables	χ^2	df	P-values	Decisions
Sex	0.93	1	0.34	N.S
Religion	0.67	2	0.71	N.S
Education	4.85	4	0.30	N.S
Marital status	1.57	3	0.67	N.S
Type of Farming	0.67	2	0.72	N.S
Other occupation	3.32	4	0.51	N.S

Level of Significant (P<0.05), df: degree of freedom, χ^2 : chi-square

Table 8: Relationship between socio-economic characteristics of extension personnel and perception of the effectiveness of agricultural extension services

Variables	χ^2	Df	P-values	Decisions
Sex	1.82	1	0.18	N.S
Religion	0.64	1	0.42	N.S
Educational level	2.84	4	0.59	N.S
Marital status	0.09	1	0.77	N.S
Other occupation	1.95	3	0.58	N.S

Level of Significant (P<0.05), df: degree of freedom, χ^2 : chi-square

Table 9: Relationship between the personal characteristics of extension personnel and perception towards the effectiveness of agricultural extension services

Variables	r	P-values	Decisions
Age	0.19	0.42	N.S
Farming experience	0.07	0.78	N.S
Income	0.06	0.79	N.S

Level of Significant (P<0.05), r: correlation coefficient

Conclusion and Recommendations

Rural farmers have favourable perception about the effectiveness of agricultural extension services. The farmers' perceived constraints are insufficient extension personnel; inadequate extension equipment and facilities to disseminate information. Also, the major constraints to effectiveness faced by the extension personnel are improper planning of extension programmes and inadequate extension equipment or

facilities to disseminate information. Based on the findings of the study, the following recommendations were made: more extension personnel should be employed and fortified with necessary equipment and facilities to enhance effective dissemination of information for transformation of agriculture in the state and the nation at large, proper planning of extension programmes should be made before its being carried out and provision of equipment for dissemination of information should be done by the government to enhance effective dissemination of information to the rural farmers. Extension personnel should be well motivated to enhance them to work more efficiently.

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