



## ABSTRACT

The study examined the effectiveness of agricultural extension service delivery for farm productivity in Oshimili North Local Government Area of Delta State with three research questions. Four communities were selected purposively, namely Akwukwu-Igbo, Ibusa, Illah, and Okpanam for this study. 30 crop farmers/households were

# EFFECTIVENESS OF AGRICULTURAL EXTENSION SERVICE DELIVERY FOR FARM PRODUCTIVITY IN OSHIMILI NORTH LOCAL GOVERNMENT AREA OF DELTA STATE

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## Introduction

Productivity is the outcome when measured in terms of the rate of output per unit of input. It can be seen as the amount of output formed with a amount of input, so agricultural productivity is defined according to Kagbu and Issa (2017), as the ratio of agricultural outputs to inputs. The output is usually measured as the sell value of the final output. The output value may be compared to the inputs in terms of labour and land use. The development in agricultural productivity is generally careful to be the result of more proficient use of the factors of production, viz. physical, socioeconomic, institutional, and technological. Singh and Dhillon



selected using Random sampling technique from each of the communities to give a total sample size of 120. A well-structured and validated questionnaire was administered to the farmers to collect the relevant data on extension service providers' effectiveness in farm productivity and farmers' access to the services of extension providers for farm productivity and extension service-related constraints of crop farmers. Data were analyzed using descriptive statistics mean, percentage, frequency, and standard deviation. A mean of 2.5 and above indicated the most effective opinion while a mean less than 2.5 indicated rejection. The finding reveals that extension workers are not effective in providing information to the farmers, most farmers do not often access information on their farm activities from the extension workers. Poor teaching sessions by extension workers, insufficient training materials, insufficient field allowance, slow response to identified problems, weak continuity of projects by new staff, and inadequate current farm technology broadcasting, to mention but a few are extension service-related constraints. It was recommended that more agricultural extension workers should be employed by the government to have sufficient agricultural extension services, government and non-governmental (NGOs) should provide extension support and enabling environment for rural farmers to thrive and extension workers should be well paid and given other allowances to encourage them.

(2000) suggested that the “*yield per unit*” should be considered to indicate agricultural productivity.

The need to increase agricultural productivity is underscored by the fact that Nigeria's population continues to boost at an increasing rate thereby striking lots of pressure on food needs. Thus, efficient wealth creation and income generation, therefore, become important.

Also, most of the farmers are resource-poor, conservative, users of crude farming implements, engage in family labour, have low educational status, and operate on a subsistence level which summarily resulted in low



productivity, and more importantly, are devoid of extension contacts in sufficient number

Although productivity does very much depend on the structure of soil and availability of irrigation water, extension services have an important role in increasing agricultural productivity, as well. According to Ogunremi and Olatunji, (2013), the task played by extension service in every segment of agricultural production cannot be over-emphasized; of the major role it plays in the broadcasting of essential agricultural information. The duty of making farmers aware of research findings to increase their production is that of extension service providers. Food and Agricultural Organization (2014) defined extension as an informal learning process meant for the rural populace to offer advice and information dissemination, to help in solving their problem and aims at growing the farm family efficiency, boost productivity, and ultimately increase their way of life apparently. According Faruq et al. (2013), agricultural extension learning activities provoke rapid upgrading and revolution of small-holder farming in Nigeria and further highlighted the features of successful agricultural extension learning as a scheme that will (i) transform subsistence production into a profit-making and market-oriented production system, (ii) ensure an optimum combination of farm enterprises conducive to dynamic maximization of farm income, (iii) facilitate efficient allocation of farm and non-farm resources through better knowledge situations, (iv) necessitate effective decision-making competence and managerial efficiency, and (v) provide efficient and usable information and training system that facilitates a meaningful organization of farm production and distribution gave the dynamics of the rural ecosystem. Agricultural extension has changed with time. It is no centered on technology transfer alone as reflected by the Training and Visit (T & V) system but has grown bigger into development of skills and management capacities of farming families (Swanson and Rajalaht, 2010). The opportunity for skill development from extension activities consistently transforms into successful performance in the input transformation stages. This ranges from production through processing to marketing for the final conversion of output to cash and more, acquisition



of other needs that are not produced by farmers. As farmers turn out to be more market-oriented, extension workers need to be in a position to advise them not only on how to grow crops and raise livestock but also on converting them to cash. It was stated by FAO (2013) that knowledge of farm production, produce handling, storage and packaging were essential to the performance of the farmer in the agricultural trade.

Agricultural extension as important as it is, assist the rural poor to improve their livelihoods. agricultural extension system refers to the entire fabrics of extension organizations' action as a medium through which educative and problem-solving innovations are delivered to the proper target by a focused agent (Oredipe, 2015).

The aim of extension activities is to teach farmers informally the ways to improve their farming methods so that they can adopt new productivity and profit-increasing technologies in their farming activities (Atsan, Bayram Isik, Yavuz and Yurttas, 2009). Atsan et al (2009) further view extension workers as those who use available tools effectively to help farmers adopt and apply the new technologies as fast as possible while farmers on their own, view extension as a form of support to help improve their proficiency, productivity, profitability, and contribution to the good of the family, community, and society (Aderinto, Agbelemoge, and Dada, 2017). To make sure there is sustainable growth in the farming in Nigeria, it is imperative to assess the effectiveness of the services rendered by different extension outfits to support the farmers. Farmers alone cannot bring about the expected increase in agriculture. It is against this background that this study aimed at examining the effectiveness of agricultural extension service delivery on farm productivity in Oshimili South Local Government Area of Delta State.

### **Statement of the Problem**

Agriculture is a main contributor to Nigeria's GDP and small-scale farmers play a leading role in this contribution (Rahji and Fakayode 2009), but their productivity and growth are slowed down by many factors like limited access to credit facilities (Odoemenem and Obinne (2010) and farmers are



resource-poor, conservative, users of crude farming implements, engage in family labour, have low educational status, and operate on a subsistence level, as a result, do not adapt to new farming practice which also summarily results in low productivity, and more importantly, are devoid of extension contacts in adequate number (Ogunwande, Odefadehan, and Akinrinola, 2018). These are trends that affect farmers agricultural production and productivity.

To achieve the outstanding feat of high productivity, the energetic role of extension activities is unavoidable and this perpetually stems from the governmental and non-governmental organizations as attested to by Bashir *et al.* (2010) as having a positive impact on crop productivity.

In many developing countries, like Nigeria, Odebode (2008) found lack of appropriate technological and scientific knowledge utilization as limits to agricultural and economic progress. Furthermore, Omokhaye (2000) added that the problem of farming expansion in Nigeria is not the lack of technologies and scientific findings needed for productivity and social change, but insufficient information on the usage of the improved technologies. Ajala, Ogunjimi, and Farinde, (2013) agreed that there are enough packages on the technological shelves and that the missing link is an effective agricultural system to disseminate available information. Therefore this study was carried out to examine the effectiveness of agricultural extension service delivery on farm productivity in Oshimili North Local Government Area of Delta State.

### **Purpose of the Study**

The main purpose of the study was to examine the effectiveness of agricultural extension service delivery for farm productivity in Oshimili North Local Government Area of Delta State.

Specifically, the study intends to:

1. determine how effective extension agents are in providing information to the farmers for farm productivity in Oshimili North Local Government Area of Delta State.



2. determine farmers' access to information from extension service providers for farm productivity in Oshimili North Local Government Area of Delta State.
3. identify the extension service-related constraints of crop farmers in Oshimili North Local Government Area of Delta State.

### **Research Questions**

1. Are extension agents effective in providing information to the farmers for farm productivity in Oshimili North Local Government Area of Delta State?
2. How often do farmers access information from extension providers for farm productivity in Oshimili North Local Government Area of Delta State?
3. What are the extension service-related constraints of crop farmers in Oshimili North Local Government Area of Delta State?

### **Methodology**

The study area, Oshimili North Local Government Area (LGA) is among of the 25 local government areas in Delta State, Nigeria. Delta State is has three Senatorial Districts; they are Delta North, Delta South, and Delta Central. The State is an oil-producing state located in the Niger Delta region of the south-south geo-political zone. The State covers an area of 17,698 km<sup>2</sup> with coordinates of 5°30'N 6°00' with 25 local government areas. The main ethnic groups in the state are Igbo, Urhobo, Ijaw, Isoko, and Itsekiri. It has a population of 4,098,291 comprising of 2,674,306 males and 2,024,085 females (NPC, 2006).

The main occupations of the citizens are farming, fishing and trading. The main crops produced are yam, oil palm, melon, cassava, and maize. Oshimili North Local Government Area (LGA) is consist of nine communities out of which four were selected purposively, namely Akwukwu-Igbo, Ibusa, Illah, and Okpanam for this study. 30 crop farmers/households were selected using Random sampling technique from each of the communities to give a total sample size of 120. A well-structured and validated questionnaire was



administered to the farmers to collect the relevant data on extension service providers' effectiveness in farm productivity and farmers' access to the services of extension providers for farm productivity and extension service-related constraints of crop farmers.

The dependent variable, access to crop farmers' information was measured on a 4 – point Likert type scale (Most Effective (ME), Effective (E), Less Effective (LE), Not Effective (NE)). Crop information required was also measured on a 3-point scale (not required=1, required=2, highly required=3). Constraints encountered by the respondents were measured using a 4– point Likert type scale (Strongly Agreed = 4, Agreed = 3, Disagreed = 2, and Strongly Disagreed = 1).

Data were analyzed using descriptive statistics mean, percentage, frequency, and standard deviation.

A mean of 2.5 and above indicated the most effective opinion while a mean less than 2.5 indicated rejection

**Research Question 1:** Are extension agents effective in providing information to the farmers for farm productivity in Oshimili North Local Government Area of Delta State?

**Table 1: Extension agent's effectiveness in providing information to the farmers for farm productivity**

S/N	Extension activities (in the past year)	ME	E	LE	NE	Mean	SD	Remarks
1	Extension agent visits	7	30	49	34	2.08	0.87	Not Effective
2	Farm inputs/asset supply	10	36	41	33	2.19	0.94	Not Effective
3	Extension training	19	25	24	52	2.09	1.13	Not Effective
4	Demo plot establishment	22	31	37	30	2.37	1.05	Not Effective



5	Focus discussions group	25	22	39	34	2.32	1.10	Not Effective
6	Extension farmers' monthly meetings	21	20	42	37	2.21	1.07	Not Effective
7	Agricultural exhibitions	11	41	36	32	2.26	0.96	Not Effective
	Grand Mean					2.22		Not Effective

Most Effective (ME), Effective (E), Less Effective (LE), Not Effective (NE)

The findings in table one above revealed how extension agents effectively provide information to the farmers for farm productivity in Oshimili North Local Government Area of Delta State. Findings showed that the mean score 2.08-2.37 respectively which is below 2.50, which means extension agents are not effective in providing information to the farmers. The standard deviation also ranges from 0.47-0.83 respectively. The grand mean score of 2.22 is a further indication that extension agents are not effective in providing information to the farmers. The rating of standard deviation which ranges between 0.87- 1.94 is an indication that the respondents were not far apart in their responses.

**Research Question 2:** How often do farmers access information from extension providers for farm productivity in Oshimili North Local Government Area of Delta State?

**Table 2: farmers access the services of extension providers for farm productivity.**

S/N	Item Statement	VO	O	NO	Mean	SD	Remark
8	Information on land clearing	19	44	57	1.68	0.73	Not Often
9	Information on seeds/cuttings	28	53	39	1.91	0.74	Not Often





10	Information on planting	37	38	45	1.93	0.83	Not Often
11	How to control weeds	30	53	37	1.93	0.83	Not Often
12	How to control pests and diseases	20	49	51	1.74	0.73	Not Often
13	Information on processing and storage	62	50	8	2.45	0.62	Not Often
14	Information on marketing	40	80	0	2.33	0.47	Not Often
15	Information on improved technology	53	67	0	1.44	0.49	Not Often
	<b>Grand Mean</b>				<b>1.93</b>	<b>0.68</b>	<b>Not Often</b>

Very often (VO), Often (O), Not Often (NO)

The result in table 2 above showed how often farmers access information from extension providers for farm productivity in Oshimili North Local Government Area of Delta State. The mean score ranges from 1.44-2.45 respectively. The standard deviation also ranges from 0.47-0.83 respectively. The grand mean score of 1.93 is a further indication that most farmers do not often access information on their farm activities from the extension agents. The rating of standard deviation which ranges between 0.81- 1.09 is an indication that the respondents were not far apart in their responses.

Research Question 3: What are the extension service-related constraints of crop farmers in Oshimili North Local Government Area of Delta State?

**Table 3: Extension service-related constraints of crop farmers**

S/N	Constraints	SA	A	SD	D	Mean	SD	Remark
17	Poor training sessions by extension agents	19	43	39	19	2.52	0.94	Disagree



18	Insufficient training kit	38	27	31	24	2.66	1.13	Disagree
19	Insufficient field allowance	34	29	20	37	2.50	1.20	Agreed
20	Absence of mobility	33	21	43	23	2.53	1.09	Agreed
21	Poor linkage with research bodies	15	52	33	20	2.51	0.92	Agreed
22	Slow response to identified problems	44	24	34	18	2.78	1.10	Agreed
23	Weak continuity of projects by new staff	28	43	33	16	2.69	0.98	Agreed
24	Inadequate current farm technology dissemination	45	21	34	20	2.76	1.13	Agreed
25	Absence of field accommodation	33	29	34	24	2.59	1.09	Agreed
26	Inadequate communication equipment and technologies	48	21	32	19	2.82	1.13	Agreed
27	Embezzlement of funds	24	47	42	7	2.73	0.85	Agreed
	<b>Grand mean</b>					<b>2.65</b>		

The finding in table 4 above revealed extension service-related constraints of crop farmers in Oshimili North Local Government Area of Delta State. The mean score ranges from 2.50-2.82 respectively and the standard deviation also ranges from 0.83-1.06 respectively. The grand mean score of 2.65 is a further indication that all the items are extension service-related constraints to crop farmers. The rating of standard deviation which ranges between 0.85- 1.20 is an indication that the respondents were not far apart in their responses.

### **Discussion of findings**

The finding reveals that extension workers are not effective in providing information to the farmers in Oshimili North Local Government Area of



Delta State. This study is in line with the study of Agbamu (2005) who found that the ratio of extension workers for farmers is insufficient in Nigeria. He summarized that the average for extension activities in the past year was 2.22%, which is very poor.

The finding in Table 2 reveals that most farmers do not often access information on their farm activities from the extension workers. The finding is in line with the findings of Aderinto et al (2017) who found out in their study that respondents had low access to possible extension service delivery and an inadequate number of extension workers.

Poor teaching sessions by extension workers, insufficient training materials, insufficient field allowance, slow response to identified problems, weak continuity of projects by new staff, and inadequate current farm technology broadcasting, to mention but a few are extension service-related constraints. These findings are in line with the findings of Adeniji, Ega, Adeniyi, Ugwu, and Balogun (2006) who also found that ineffectiveness in extension service delivery is caused by unbalanced payment of travel claims, lazy field staff, reduced teaching sessions for village extension workers, and reduced technology review meetings.

## **Conclusion**

Based on the results of this study, the following conclusions were made:

The study examined the effectiveness of agricultural extension service delivery for farm productivity in Oshimili North Local Government Area of Delta State. Yes, inadequate extension workers and other constraints have hindered the full exploitation and effectiveness of extension service delivery in Nigeria (Aderinto, Agbelemoge, and Dada, 2017). It is also evident in the study that farmers in the study area do not often access information on farming from agricultural extension agents.

Furthermore, the majority of the limitations facing extension activities perceived by the farmers are serious, such as poor training sessions by extension agents, insufficient training kits and field allowances, absence of mobility, and poor linkage with research bodies. The implication is that



these limitations have jeopardized their efforts and contributed to the reduced service delivery in boosting farmers' productivity.

### **Recommendations**

The following recommendations were made based on the findings of this study:

1. More agricultural extension workers should be employed by the government to have sufficient agricultural extension services.
2. Government and non-governmental (NGOs) bodies in the study area should provide extension support and enable the environment for rural farmers to thrive.
3. Extension workers should be well paid and given other allowances to encourage them.

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