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FARMERS' PERCEPTION OF THE EXTENSION AGENTS' EFFECTIVENESS AND INTRODUCTION OF EXTENSION REFORMS IN DELTA STATE, NIGERIA

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ABSTRACT

The study assessed the perception of farmers on extension agents' effectiveness and introduction of agricultural extension reforms in Delta State, Nigeria. One hundred and twenty eight randomly selected farmers from a list of 527 farmers were surveyed using interview schedule for data collection. The findings of the study show that a majority (71.1%) of the respondents are female and belong to age bracket of 30 – 49 years old (80.2%). Findings also show that majority (61.7%) of the respondents had contact with extension agents on a monthly basis. Respondents perceived extension agents to be vast in subject matter, had beneficial new technologies and they integrated lectures well with practical. However, respondents were not impressed with extension agents' listening ability to respondents' problems, acting as if they know all, imposing their ideas on them and not being explanatory enough. Despite these shortcomings, farmers still highly adopted transferred technologies and they were also not positively disposed to introduction of extension privatization and commercialization. Respondents' age (r = 0.173), education (r = 0.245) and farm Size (r = 0.254) had significant relationship with their perception of extension agents' effectiveness. For extension to be more effective, there is a need for joint running of agricultural extension by public and non-public institutions and extension institutions should consider having a broader role than providing technical recommendations on agriculture alone.

Key Words: Farmers' Assessment, Extension Agents' Effectiveness, Extension Reforms,

INTRODUCTION

Agricultural transformation and increased productivity is determined to a large extent on the effectiveness of agricultural extension services (Njoku,1990). He opined that institutional inefficiencies in the development and delivery of relevant information and assistance from national extension systems are often the major reason why farmers do not adopt farming innovations. Consequently, a wide range of policies and approaches have been formulated in most of the developing countries but a common feature of these strategies is that government runs agricultural extension service devoted to augment small holder productivity by promoting the adoption of new scientific farming practices through educational procedures (Ogunbameru, 2005).

The agricultural extension service operates from the backdrop belief that increased agricultural productivity depends primarily

upon the acceptance of improved cultural and technological changes at the rural farm level and that peasant farmers can achieve higher farm yields only if they adopt recommended scientific farming techniques in place of their traditional practices. However, Asiabaka, Morse and Kenyon (2001) have expressed the view that, for farmers of different agricultural zones to adopt a new agricultural technology, they must be aware of the technology, have valid and up-to-date information on the technology, the applicability of the technology to their farming system and receive the technical assistance necessary to the technology". Thus, successful adoption of improved farming techniques is predicated upon rural farmers acquiring the required knowledge and understanding of these technologies a process most effectively accomplished by the agricultural extension service. The final measure of success in extension work is adoption (Erie, 1986) and hence until innovations are diffused to and adopted by the intended audience the tremendous research cost is an unrealistic public investment.

The extension service is however most castigated for agriculture's poor performance since, according to Abalu (1993), if technological innovations made available by research system component of National Agricultural Research and Extension System (NARES) in the past twenty years were adopted, poverty and food insecurity could not have been the case."

The Agricultural Development Programme's (ADP) extension strategy was based on the premise that a combination of essential factors comprising of the right technology, effective extension, access to physical production-enhancing inputs, adequate market and other infrastructural facilities are essential ingredients to get agriculture moving and to improve productivity in order to raise the living standards of rural dwellers (Federal Agricultural Coordinating Unit (FACU,) 1986); Braimah, 1992). The central feature of the ADP strategy is the reliance on the small-scale farmer as the pivot of an incremental food production strategy. The system has as its main component a reorganized and revitalized agricultural extension system that integrates extension workers' training and farm visits and ensures a two-way communication between farmers and researchers. The main thrust of the strategy, according to FACU (1986) is the encouragement of rapid uptake of improved farming techniques which can only be done through programmed and monitored extension staff and farmer education program. The ADP is the agency responsible for public extension service delivery at the grassroots. The ADP approach is to be achieved through a virile extension outfit that regularly updates farmers' knowledge on latest and proven technologies, which are particularly demonstrated to them. The ADP thus operates a systematic extension delivery using basically the Training and Visit (T&V) extension approach to enhance agents and farmers efficiencies respectively.

However, there seems to be a gap existing between these strategies and the utilization of the many impressive research results at the production end. The task of the extension agents in the ADPs is to improve the farmers' efficiency but many are not result-oriented (Amalu, 1998). Preconditions for extension agents to be effective include ability to communicate, attitude to exten-

sion work, and frequency of contact with farmers and field responsibility, which are examined from the viewpoint of the farmers (Uwakah, 1985).

On the shelves of most research institutes in Nigeria according to Moris (1992), may be found several reports, thematic reports and so on. with long lists of constraints and problems encountered by all categories of field staff in the projects. He further noted that throughout Africa, field staff in the lower levels of agricultural bureaucracies often encounters very difficult working conditions. Many of the research recommendations, technical packages, extension messages and technology "impact" points that were thus expected to have revolutionized agricultural productions and transform standard of living of the rural farmers, have performed poorly that benefits rarely materialized.

The common complaint in many developing countries is that more operating funds are spent on personnel emoluments, leaving almost no budget for extension programs. Claar and Bentz (1984) noted that such a practice severely reduces the effectiveness of extension because of the high mobility and training requirement. This is because funding from government for agricultural extension has gone down in recent times (Okoro, 2000). The issue of budget cuts for agricultural extension in many developing countries is not new. there is therefore a need for governments in developing countries to take a decision on how to reform agricultural extension. According to Qamar (2002), pluralistic extension system that would involve pooling of all available resources together to compensate for low budgets, develop partnerships to make agricultural extension more efficient and effective are needed as agricultural extension has gone beyond messages on technical recommendations on crop production only in many parts of the world.

The study, therefore, becomes important as a way of periodically assessing the effectiveness of the extension agents of the ADP by the farmers who are the target group of the agricultural extension effort. Chikwendu et al. (1997) noted that in recent years, there have been indications of ineffectiveness in the ADPs' implemented Training and Visit (T&V) extension system. It is also necessary to seek the opinion of the farmers on privatization and commercialization of extension in view of the poor performance of public extension service.

The general objective of this study was to determine farmers' perception of the effectiveness of extension agents of the Agricultural Development Program.

The specific objectives were to examine the socio-economic characteristics of respondents, ascertain the frequency of contact between farmers and extension agents, determine respondents' assessment of the extension agents' effectiveness through performance in knowledge/mastering of subject matter, teaching and communication skills, areas of coverage and relevance of messages to their needs, establish the perception of respondents to extension privatization and commercialization and determine relationship between respondents' socio-economic characteristics and their perception of extension agents' effectiveness.

METHODOLOGY

The study was conducted in Delta State, which lies in the South-South part of Nigeria. Delta Agricultural Development Program (DADP) has three agricultural zones, Delta North Agricultural zone with 9 Local Government Areas, Delta Central Zone with10 Local Government Areas and Delta South Zone with 6 Local Government Areas.

The target population for the study was the food crop farmers. A multi–stage random sampling technique was used for the study because the sampling unit occurs in strata of blocks and cells. The first stage was the purposive selection of Delta central zone from the three zones of the ADP being the largest of the zones as it has 10 of the 25 local government areas and with the largest concentration of food crop farmers. The second stage was the random selection of five blocks from a total of ten blocks in the Delta central zone. These were Ughelli North, Sapele, Ethiope East, Isoko North and Udu blocks respectively. The third stage was the random selection of two cells from eight cells in each block to make a total of ten cells sampled. The last stage was the proportional random selection of 15 farmers from each cell because of the unequal numbers of farmers in each cell. A total of 150 farmers from 527 ADP registered farmers in the ten cells formed the sample size but only 128 copies of respondents' questionnaire were useful for analysis.

The instrument for data collection was a structured interview schedule, which was validated by some experts from Agricultural Economics and Extension Department, University of Benin and some extension officers of the Delta Agricultural Development Program (DADP). It was pretested using a small sample of 15 respondents from Uvwie Local Government Area of ADP central zone that was not included in the study. The reliability of the instrument was r = 0.88.

Farmers' perception of extension agents' effectiveness were measured as propounded by Uwakah (1985) using frequency of extension agents contact with respondents, extension agents teaching and communication skills, subject matter coverage and relevance of extension agents' messages to respondents' technological needs. Some of the variables were measured using a Likert-type-scale. For example, a 5- point likert-scale ranging from 'strongly agree' (5), 'agree' (4), 'Undecided' (3), 'disagree' (2), to 'strongly disagree (1) was used to assess respondents perception of the extension agents teaching performance. A mean score of 3.50 and above indicates effective teaching while a mean score lower than 3.50 indicate an ineffective teaching.

Data collected were analyzed using descriptive statistics such as frequency, percentages, mean scores and standard deviation. Correlation coefficient was used to test the relationship between some respondents' characteristics and their perception of extension agents' effectiveness.

RESULTS AND DISCUSSION

Socio-economic Characteristics of Respondents

Table 1 shows the socio-economic characteristics of the respondents. The result

shows that majority (71.1%) of the respondents are female which is an indication that female farmers may likely dominate the workforce in Delta State agricultural sector, especially in the rural sector where agriculture is practiced on a subsistence level. This result agrees with the view of Verma (2001) that women account for 70-80 percent of house-hold food production in sub-Saharan Africa. The result also shows that majority of the respondents belong to age bracket 30-49 years old (81.2%) which means that majority belong to the active age as only few (12.5%) are above 50years. This finding agrees with that of Obinne and Anyanwu (1991) that the mean age of male farmers in their study was 45years and that of females were 40. Age is a factor that is very important in farming as a primary occupation since it requires people of age group that are energetic and are independent. Table 1 also shows that a high proportion of the respondents (89.8%) were married. Education is important in creating positive mental attitude towards adoption of modern farming innovations (Benor et al., 1997). However, the result in Table 1 indicates a low level of respondents' educational qualification as majority of the respondents (69.5%) had only primary education and only 3.1% had tertiary education. All the respondents are farmers but a few (6.2%) are also into trading and civil service in addition to farming and a large proportion (60.9%) also have 11- 30 years of farming experience with a majority (73.0%) having less than 2 hectares as farm size which is an indication that majority are small-scale farmers. This result agrees with the view Omohan (1996) that the small farming holdings constitute more than 70% of all farming activities in Nigeria.

Farmers' Perception of Extension Agents' Effectiveness:

Frequency of Extension Agents' Contact with Respondents.

Majority (61.7%)of the respondents have contact with extension agents on a monthly basis (61.7%). Only 16% of them are being contacted fortnightly which is the T and V system of extension's recommendation, while 22% reported being visited once in every two months. The frequency of contact is low. The low frequency of contact between extension agents and farmers might have been due to lack of funds for logistics which came after the World Bank withdrawal from the counterpart funding of ADPs nation wide. According to Kamilu (2001), "after the World Bank withdrew their financial support, many Nigerian ADPs are no more viable."

Farmers' Perception of Extension Agents' Teaching and Communication efficiency

Table 2 shows the respondents' perception of the extension agents' teaching and communication efforts. The results show that respondents perceived the extension agents to have good knowledge of subject matter (M = 4.48), have a lot of new ideas (M = 4.43) and their messages are beneficial (M = 4.36). However, respondents gave a low rating to some of the teaching and communication strategies of the extension agents such as, listening ability to respondents' problems (M = 3.27), acting as if they know it all (M = 3.19), imposing their ideas on respondents (M = 3.02) and not being explanatory enough (M = 2.91). This result implies that though, the extension agents had good knowledge of subject matter and new ideas but they lacked good communi-

cation skills and inadequate knowledge of adult learning principles which could affect the impact of their training on the farmers and also their effectiveness. According to Rogers (1996), the poor training of agricultural extension staff is part of the problem of the relative ineffectiveness of much extension in the field.

Table 3 shows the area of coverage of the extension agents. It is obvious from the table that the extension agents were mainly covering the commodity crop production technologies, processing and storage and fairly of input distribution. Areas not related to crop production were mostly neglected. This result clearly indicated that the extension agents are still used to their traditional extension which agrees with the view of Crowder (1996), that current extension advice and messages often reflect a bias towards short-term, single-crop production gains and solely on technical recommendations.

Respondents' Perception of Relevance of Extension Agents' Message to their Technological Needs/Problems

Table 4 shows how relevant extension agent's messages on improved technologies were to the respondents' farm needs/ problems. The table shows that extension agent's message on improved varieties (M = 4.08) was very relevant. Improved varieties were perceived as important technology "impact point" necessary for increased production, hence the high rating. In the same vein, respondents perceived messages relating to processing (M = 3.93), spacing (M= 3.87) and application of fertilizers (M = 3.83) as relevant to their farm needs/problems. The result further shows that extension agents' message on application of herbicides and pesticides (M = 2.45), storage (M = 2.86) and harvesting techniques (M = 3.33) were irrelevant to respondent's farm needs/problems.

Respondents' Perception as Regards Agricultural Extension Reforms

Table 5 shows the opinions of the respondents as regards agricultural extension reforms. The result shows that majority (85.2%) of the farmers are not in support of complete privatization and commercialization of agricultural extension. However, a majority (86.7%) were in support of joint financing of agricultural extension by government, private organizations, NGOs and others. An interesting result in Table 5 is that, a majority (72.7%) of the respondents were in support of involvement of local government in the running and financing of agricultural extension. Most of the results were not unexpected because small holder farmers would not have enough funds to pay for full privatization of extension which was actually indicated by some of the respondents through verbal discussion during the survey.

Relationship between respondents' selected socio-economic characteristics and their perception of extension agents' effectiveness

Table 6 shows that respondents' age (r = 0.173), education (r = 0.245) and farm Size (r = 0.254) had positive and significant relationship with their perception of extension agents' effectiveness. This means age may likely have a positive impact on perception of an individual. Similarly, the better the educational qualification farmers acquire, the better the perception. Akinbile

(2003) asserted that the more literate farmers are, the more they comprehend technologies more than others. Education of respondents therefore enhances their comprehension of technical information and makes them able to manipulate the information. As regards farm size, the larger the farm size the more farmers seek for extension agents' advice and help and therefore the higher the perception of effectiveness.

CONCLUSIONS AND RECOMMENDATIONS

Findings from the study established that farmers perceived the extension agents to be knowledgeable in subject matter and they are good in how to arrange theory and practical. The study also revealed some weaknesses of extension agents in areas such as inadequate frequency of contact with farmers and inadequate communication skills and knowledge of adult learning principles. The study also revealed that extension agents concentrate only on technical recommendations on commodity crops without educating farmers in other areas of rural, agricultural development and sustainability. This is an indication that the extension agents are not abreast of new developments in agricultural extension. The study has also shown that despite the shortcomings highlighted above that the extension agents are not at the full potentials of their effectiveness which have been the characteristics of the public agricultural extension service, farmers are still not in support of full privatization and commercialization of extension service. Based on these findings, the following are recommended:

1. There is a need to consider the joint funding of agricultural extension by government, NGOs and private organizations which involves pooling of all available resources together to compensate for low budgets, develop partnerships to make agricultural extension more efficient and effective.
2. Since the extension agents are not abreast of new developments in extension as shown in the study, their efficiency could be more enhanced through training. Training is the only springboard for acquisition of knowledge and skill. Therefore, DADP should regularly organize adequate in-service training to enhance the knowledge and efficiency of village extension agents. Regular training in the form of workshops, seminars and conferences should be provided for extension agents so that reasonable experience is acquired especially in adult learning and new developments in extension programme.

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Table 1: Distribution of respondents according to socio-economic characteristics

Socio-economic characteristics	Frequency N = 128	Percentage (%)
Age Range		
Less than 30years	8	6.3
30-39yea	47	36.7
40-49 years	57	44.5
Above 50years	16	12.5
Sex	37	28.9
Male	91	71.1
Female		
Marital Status		
Married	115	89.8
Single	13	10.2
Educational Qualification	89	69.5
Primary Education	35	27.4
Secondary Education	4	3.1
Tertiary Education		
Occupation	128	100
Farming	5	3.9
Trading	3	2.3
Civil Service		
Farm Size	5	3.9
Less than 0.5	38	29.7
0.5-1.0	42	32.8
1.1-1.5	8	6.3
1.6-2.0	27	21.1
2.1-2.5	8	6.3
Greater than 2.5		
Years of Experience	44	34.4
1-10	67	52.3
11-20	11	8.6
21-30	6	4.7
Above 30		

Source: Survey Data, 2005

Table 2: Respondents' assessment of extension agents' knowledge/mastery of subject matter, teaching and communication efficiency

Perceived level of teaching efficiency	M	SD
EAs have good knowledge of subject matter	4.48	0.50
EAs have a lot of new technologies	4.43	0.64
EAs messages are beneficial	4.36	0.74
EAs integrate theory and practical well	4.29	0.59
EAs' presentation of topics is good	4.16	0.90
EAs listen to your problems	3.27	0.95
EAs act as if they know all	3.19	0.59
EAs impose their ideas	3.02	0.55
EAs are explanatory	2.91	0.59

EAs = Extension Agents, M = Mean, SD = Standard Deviation

Table 3: Percentage distribution of respondents according to perceived areas covered by extension agents

Coverage areas	Yes	No
Commodity crop production technologies	97.7	2.3
Processing and storage technologies	93.8	6.2
Input distribution	65.0	35.0
Income generation strategies	35.2	64.8
Marketing	32.0	68.0
Micro-credit	25.0	75.0
Environmental issue	4.7	95.3
Health issues (HIV/AIDS, Malaria	0.8	99.2
Information and communication technology	0.8	99.2

Table 4: Relevance of Extension Agents Message to Respondents Technological Needs/Problems

Technologies	Mean (M)	Std. Deviation
Improved varieties	4.08	1.02
Processing	3.93	1.29
Application of fertilizer	3.83	1.26
Harvesting techniques	3.33	1.35
Storage	2.80	1.72
Application of herbicides and pesticides	2.45	1.48

Table 5: Distribution of Respondents According to their Opinions on Agricultural Extension Reforms

Reforms	Yes	No
Government should fully privatize agricultural extension	14.8	85.2
Government and private organizations should finance extension	45.3	54.7
Federal, state and local governments should jointly finance extension	72.7	27.3
Extension should be left to universities and research institutes	29.7	70.3
Big commercial farmers should only pay for extension services	82.8	17.2
Government should continue to provide extension service to small scale farmers	92.2	7.8
Extension service should be jointly financed by government, private organizations, NGOs, universities etc.	86.7	13.3

Table 6: Relationship between some respondents' characteristics and their perception of extension agents' effectiveness

Respondents' characteristics	Correlation Coefficient (r)
Age	0.173*
Education	0.243*
Farming Experience	0.095
Farm Size	0.254*

* Significant at 5% Level