Determinants of Job Performance of ADP Extension Agents in Ebonyi State, Nigeria

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Abstract
This study evaluated the determinants of job performance of agricultural development programme (ADP) extension agents in Ebonyi State, Nigeria. Data were collected from a sample of thirty-six (36) ADP extension agents and one hundred and eighty (180) contact farmers using purposive and multi-stage sampling techniques. In the first stage, the three (3) zones. Secondly. four (4) ADP extension blocks were randomly selected from the eight (8) blocks that make up each zone to sum up to twelve (12) extension blocks. In the third stage, three (3) circles were selected from each of the twelve (12) extension blocks to sum up to thirty-six (36) respondents. Additionally, the fourth stage involved the selection of five (5) contact farmers from each of the thirty-six circles to sum up to one hundred and eighty contact farmers. Moreover, Focused Group Discussion (FGD) was conducted in each of the three zones of the state which include; Ebonyi North, Ebonyi Central and Ebonyi South to validate the data collected from the respondents. Both descriptive and inferential statistics were used to analyze the data collected from the field. The result revealed that majority of the extension agents and contact farmers in the study area were educated and the extension agents and contact farmers had mean working experience of 8.3 years and mean farming experience of 17 years respectively. The mean ages of extension agents and contact farmers were 39 years and 47.2 years respectively and their mean annual salary and annual farm income were #265.500 and #115,327.59 respectively. It also revealed that the extension agents were effective in programme planning, farm and home visit, conducting of demonstration, training of contact farmers, organizing farmers into cooperative society, disseminating useful information from research etc but ineffective in distribution of farm inputs, organizing farm and field trips and helping farmers to obtain credits and loan. It was also indicated that provision of incentives, provision of mobility, regular and prompt payment of salaries and allowances, job security, regular promotion etc affected extension agents' job performance positively. Poor funding, wrong attitude of extension agents, inadequate man-power, lack of social amenities, lack of mobility, irregular payment of salaries and allowances etc constrained extension agents' job performance in the study area. Generally, the extension agents' job performance was moderate in the study area. It is recommended that government should increase funding of extension service, ensure better welfare packages to extension agents, and also ensure that adequate and qualified extension staffare employed.
Key words: determinants, job performance, ADP, extension agents, farmers

I.   Introduction

Agricultural development programmeis closely linked with rural development that the development of one sector leads to the development of the other sector (Adeola 2005). Agriculture and rural development are enhanced through agricultural support services. These support services are carried out through agricultural extension agents or workers. Anyanwu *et al.* (2008) defined extension as a means of offering useful information to people outside academic environment. Extension is also the act of extending or passing information or knowledge from the source of the information to people outside the source of the information. Extension is also defined as a voluntary, informal, out of school educational process of teaching rural farmers scientific agriculture and home management with a view to improving their quality of life through efficient use of resources at their disposal.

Agricultural extension is the act of extending knowledge or information or facts or innovation gained in research station or institution to farmers through the extension workers or agents in order to improve their farming activities. Mgbada (2002) averred that agricultural extension is a service or system which assists farm people through educational procedures, in improving farming methods and techniques, increasing production efficiency and income, bettering their levels of living and lifting the social, economic and educational standard of rural life. She further stated that agricultural extension is an organized, non-formal educational activity

usually supported or operated by government to improve the productivity and general welfare of the rural people. In his own contribution, Nwachukwu (2003) sees agricultural extension as agriculturally biased community development programme with an informal educational approach to problems of rural community. He maintained that agricultural extension is an informal practical proogramme of education designed to help rural farmers to help themselves.

For extension to be effective there must be a gap between what the farmers produced and what they can produce in the same farm. Ogunji*et al.* (2011) stated that education is the building block for social and economic reconstruction. They further stated that the most effective strategy to break away from the vicious cycle of under development, poverty, ignorance, disease, chronic economic dependency and political instability is through a qualitative education. Agricultural education includes the education and training given in agriculture from primary school through secondary school to the university. According to Egwu (2008) education is a scientific or systematic body of knowledge which deals with the creation, transmission and application of knowledge designed to bring about planned changes in the complex behaviour of people with a view of helping them to live a better life through learning new ways of improving their vocations, enterprises and institutions. Education is action directed towards helping people to help themselves. Akubuilo (2001) avers that the foundation for sustainable agricultural extension is through systematic and well-articulated educational system. Asiabaka (2002) advocates that education is a tool that helps to develop tolerance and acceptance of democratic principles. The author further stated that lack of education has negative impact on the society in that they are ignorant of government policies, programmes and that this condition has resulted to low productivity.

In their view, Ekumankama and Anyanwu (2007) observed that effective and prompt supervision and monitoring of ADP extension agents play a vital role in enhancing their job performance and lack or improper supervision of extension field workers will lead to poor performance of these field staff. It is also observed that experience is another factor that affects the job performance of ADP extension agents in the area. It is noted that experienced and trained extension agents tend to perform better than inexperienced or amateur and untrained extension agents or staff. Regular and prompt payment of salaries and allowance, regular promotion and job security of extension agents are factors that affect their job performance. Other factor that could affect job performance of extension agents is extension environment such as settlement pattern, topography, accessibility of the area, vastness of the area, prevailing culture, hospitality, security of the extension agents, health care, soil status, land tenure and others.

The dwindling nature of food and other agro-related products in Ebonyi State and Nigeria at large that has resulted to high import bills is worrisome. The State which was known for her high food production now goes to other states to buy staple food like rice, yam, beans, plantain and livestock products. Although the state has rich agricultural potentials, agriculture has not progressed due to absence of sound agricultural development policy and debilitating factors like pest infestation, soil degradation, use of primitive tools and primitive agricultural practices (MANR, 2008). There is wide gap between what the farmers in the state produce and what they can produce in the same farm with the right agricultural practices that are anchored in research-extension linkage system. This wide gap between research farm and what farmers can produce in the state may be due to the fact that research findings are often complicated and complex for the farmers to understand and adopt in their farm practice or that these research findings are not well presented to them to understand and adopt in their farm practice.

II. Methodology

Study Area

The study area is Ebonyi State of Nigeria. The state is located in the South East of Nigeria. It is bounded or bordered on the east by Cross River State, west by Enugu State, north by Benue State and south by Abia State (Ebonyi State Diaries 2013). Ebonyi State has a land mass that is approximately put at five thousand, nine hundred and thirty-two (5932) square kilometers (EBMANR, 2008). The soil of the state is AericTropoaquent or Gleyic cambisol that is characterized by moderate soil organic carbon (OC) content on the top soil, low in soil Ph and cat ion exchange capacity (CEC) (Nwite*et al.,* 2012). The vegetation of the state is a mixture of savanna and semi-tropical rain forest (EBMANR, 2008).

This state has a total population of two million, one hundred and seventy-six thousand, nine hundred and forty-seven (2,176, 947) persons with male population of one million, sixty-four thousand, one hundred and fifty-six (1,064, 156) persons with female population of one million, one hundred and twelve thousand, seven hundred and ninety-one (1, 112, 791) persons (NPC 2006). The people of the state are Igbo speaking people that are believed to have originated from different parts of Igbo land. The state is made up of thirteen (13) local government areas which include Abakaliki, Afikpo North, Afikpo South, Ebonyi, Ezza North, Ezza South, Ikwo, Ishielu, Ivo, Izzi, Ohaozara, Ohaukwu and Onicha. Ebonyi State ADP is made up of the State headquarters and the three (3) zonal offices at the three (3) senatorial zones of the State. Each of the three (3) ADP zones is made up of eight (8) blocks and the blocks include Abakaliki 1, Abakaliki 2, Ebonyi 1, Ebonyi 2,

Izzi 1, Izzi 2, Ohaukwu 1 and Ohaukwu 2 for Ebonyi North zone, Ezza 1, Ezza 2, Ezza 3, Ikwo 1, Ikwo 2, Ikwo 3, Ishielu 1 and Ishielu 2 for Ebonyi Central zone and Afikpo urban, Afikpo rural, Ekoli/Nguzu, Owutu, Ivo, Ohaozara, Onicha and Ukaba for Ebonyi South Zone. Each of the extension blocks is further delineated into eight(8) circles that operate at community level. Agriculture is the mainstay of the economy of the state. Ebonyi State is dominated by small scale farmers who cultivate <1-3 hectares of land and they are mainly subsistence farmers (Ogisii, 2012). The farmers are engaged in crop production like rice production and processing; yam, cassava production etc. and are also involved in rearing of animals like cattle, goat, sheep, pig, poultry and fish production etc. Food production in the state is mainly through rain fed agriculture, although there may be supplementary irrigation where the vegetable farmers use small amount of water from well, pond, stream, river etc. to water their vegetable and tree crops during the dry season. Though greater percentage of the population of the state are engaged in agriculture, there are others who are engaged on other areas of endeavor like civil service, trading, blacksmithing, craft making, stone crushing, milling or processing etc.

Sampling Technique
        A total of thirty-six extension agents were selected for the study. In the first stage, the three (3) zones of the state were covered in the study. In the second stage, four (4) ADP extension blocks were randomly selected from the eight (8) blocks that make up each zone to sum up to twelve (12) extension blocks. In the third or last stage, three ((3) circles were selected from each of the twelve blocks to sum up to thirty-six (36) respondents. Additionally, multi-stage random sampling techniques were used to select one hundred and eighty (180) ADP contact farmers from the twenty-four (24) ADP extension blocks that make up the study area. In the first stage, four (4) ADP blocks were purposively selected from each of the three (3) zones of the state to sum up to twelve (12) blocks, secondly, 3 circles were purposively selected from the 12 blocksto sum up to thirty-six (36) circles. Finally, five (5) contact farmers were randomly selected from each of the thirty-six (36) circles to sum up to one hundred and eighty (180) contact farmers. The total respondents for the study were two hundred and sixteen (216) respondents.

Data Collection
        Primary data sources were used in the study. The primary data were collected from ADP extension agents and farmers using well-structured questionnaire and interview schedule respectively. Moreover, focused group discussion (FGD) was held in each of the three (3) zones of the state to validate the data collected from the respondents.

Analytical Technique
        Both descriptive and inferential statistics were used or employed in data analysis. Objectives 1, 3 and 4 which are to describe the socio-economic characteristics of the ADP extension agents, evaluate the job performance of ADP extension agents in the study area and determine agency, environment and clientele-related factors affecting the job performance of the extension agents respectively were analyzed using descriptive statistics such as percentages, frequency count and mean, objective 3 which is to evaluate the job performance of ADP extension agents in the study area was further analyzed using mean score derived from 4-point likert scale. Objectives 2 and 5 which are to analyze the socio-economic characteristics of contact farmers that influence the job performance of ADP extension agents and analyze the effect of the socio-economic attributes of the extension agents on their job performance respectively were analyzed using logit regression. Finally, objective 6 which is to analyze major constraints to effective extension delivery in the study area was analyzed using factor analysis.

Model Specification
Logit Regression Model
        Logit regression model was used to determine the effects of socio-economic attributes of the extension agents on their job performance.
The logit regression model for the extension agents is stated below as follows:-

$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8) \ldots \ldots$ Implicit function

$Y = b_o + b_{1X1} + b_{2X2} + b_{3X3} + b_{4X4} + b_{5X5} + b_{6X6} + b_{7X7} + b_{8X8} + U \ldots \ldots$ Explicit function

Y = Performance of extension agents (1 = high, 2 = low)

X_1 = Age of Extension Agents (Yrs)

X_2 = Educational qualification (yrs in formal school)

X_3 = Sex of Extension Agents (Male=1, female=2)

X_4 = Marital status (married = 1, single = 2)

X_5 = Additional training (No of in-service training/course attended)

X_6 = Salary or Wage (Naira)

X_7 = Mobility (mobile = 1, not mobile = 2)

X_8 = Extension workers' experience (years)

X_9 = Job security (1 = secured, 2 = not secured)

X_{10} = Promotion (1 = regular, 2 = irregular)

$b_1 b_8$ =The coefficient of the independent variables

et =Sstochastic or error term

Test of Hypothesis

The null hypothesis (Ho) which states that there is no relationship between the socio-economic characteristics of the extension agents and their job performance was tested at 5% level of significance using F-test as stated below:-

F-cal= $\frac{(R^2 N - K)}{1 - R^2 (K-1)}$

Where:-

R^2 = coefficient of multiple determination

N = sample size

K = number of variables

Decision Rule: If F-cal is greater than (>) F-tab reject the null hypothesis (Ho) otherwise accept.

Likert Type Scale

The four (4) point likert type scale was used to evaluate the job performance of ADP extension agents in the study area and determine the agency, environment and clientele-related factors affecting the job performance of the extension agents as indicated below:

$$\overline{X} = \frac{\sum fn}{N}$$

Where $\overline{X}$ = mean

$\sum$ = Summation

F = Frequency of response to the options

n = Likert nominal values of response options

N = Number of responses to an item.

Decision rule: any mean that is 2.5 and above is regarded as positive response while those below 2.5 are regarded as negative response.

III. Results and Discussions

Socio-Economic characteristics of the Extension Agent

Table 1 shows that majority (71.4%) of the extension agents were males while 28.6% are females, implying that male dominate extension activities in Ebonyi State. This supports assertion made by Akinsorotan and Adesiji (2011) who stated that more male extension agents are involved in extension service delivery because of their strength.Result also indicated that most (42.9%) of the extension agents were of ages between

28 – 37 and 38 – 47 years respectively, while the mean age of the respondents was 38.7 years. This is an indication that extension activities in Ebonyi State are carried out by active young people who are within their productive age. This confirms similar research carried out by Okwoche et al; (2015). Equally, the result indicated that majority (74.3%) of the extension agents had HND/BSc as their highest educational attainment, followed by 20.0% of them who had higher degree qualification and least (5.7%) of them had Higher National Diploma (HND), Ordinary National Diploma(OND) and National Certificate in Education (NCE). This implies that well educated people were employed to carry out extension services in Ebonyi State. This supports similar works done by Akinsorotan and Adesiji (2011) and Ogbonna (2010) who noted that education is bedrock for agricultural transformation.Extension services in Ebonyi State were dominated by married couples as indicated by majority (85.7%) of the extension agents being married while few (14.3%) were single. This confirms assertion made by Okwoche et al (2015) that married people are more diligent in carrying out their assigned responsibilities.The result in Table 1 shows that majority (68.6%) of the respondents had worked as an extension agent for between 5 – 10 years while least (14.3%) of them had working experience ranging between 11 – 15 years. The mean working experience of the agents was 8.3 years, indicating a relatively low working experience, suggesting that they have not stay long enough in the job.Okereke and Onu (2007) argued that 10 years working experience is quite a long period of time for extension agents to have gained immense working experience that would help them to disseminate useful information to farmers. The annual income distribution of the extension agents showed that most (40.0%) of them earned between N225, 001 – N250, 000, followed by 37.1% them who earned between N275, 001 – N300, 000 while least (8.6%) of them earned between N25,001 – N275, 000 per annum. The mean annual income of the extension agents was N262, 500.5. this concurs with Okereke and Onu (2007) who postulates that enough motivation is crucial for boosting extension agents' morals.Results in Table 1 shows that majority (57.1%) of the respondents participated in workshops, followed by 28.6% of them who participated mainly in seminars, while 7.9% of them attended induction courses and few (5.7%) of the extension agents attended short term courses. It is sufficed to say that there are various training programmes available for the extension agents in Ebonyi State, Nigeria.Omoregbee and Ajayi (2009) concur with this result that training and re-training given to the extension agents will help to boost their work efficiency. Finally, the result showed that more than half (51.4%) of the training programmes available for extension agents were sponsored by EBADEP, followed by 22.9%, which were sponsored by State/Federal governments, while 14.3% of the training programmes were financed by non-governmental organizations (NGOs), and few (11.4%) were self-sponsored. Okereke and Onu (2007) collaborate this result that constant training and re-training programme are required to be put in place by extension organization to strengthen the extension agents job performance.

Table 1: Socio-economic Characteristics of the Extension Agents in the study area

Socio-economic characteristics	Variable description	Frequency (n=35)	Percentage	Mean score
Sex	Male	25	71.4	
	Female	10	28.6	
Age	28 – 37	15	42.9	39
	38 – 47	15	42.9	
	48 – 57	5	14.3	
Educational qualification	OND/NCE	2	5.7	
	HND/First Degree	26	74.3	
	Higher Degree	7	20.0	
Marital Status	Married	30	85.7	
	Single	5	14.3	
Working Experience (yrs)	<5	6	17.1	8.3
	5 – 10	24	68.6	
	11 – 15	5	14.3	
Annual Salary (N)	<5	6	17.1	8.3
	225001 – ₦25000	14	40.0	262500.50
	250001 – ₦27500	3	8.6	
	275001 – ₦30000	13	37.1	
	>300, 000	6	17.1	
Training participated	Seminar	10	28.6	
	Workshop	20	57.1	
	Short service Course	2	5.7	
	Induction course	3	7.9	
Sponsors	Self	4	7.9	
	EBADEP	18	51.4	
	State/Federal Govt.	8	22.9	
	NGOs	5	14.3	

Note: ₦ = naira.

Farmers Evaluation of ADP Extension Agent's Job Performance

Table 2 shows the perception of contact farmers on job performance of ADP extension agents. The result indicates that the ADP extension agents visit contact farmers mostly at home and farm (63.2%), followed by visit to farm only (21.3%) and least visit to home only (15.5%). This result collaborates Ekumankama and Anyanwu (2007) who stated that extension visits to farmers is essential method through which extension comes in contact with farmers in Nigeria. Based on the frequency of extension agents' visit to contact farmers, it was observed that fortnightly and monthly visits were rated high with 29.7% response respectively, followed by weekly visits (21.3%) and quarterly visits (5.7%). Ilevbaoje (2004) posited that it is absolutely necessary to visit farmers on fortnight schedule. On the place of agents' residence, it was observed that more than half (58.1%) of the extension agents reside at the local government headquarters, while other (23.0%) and (17.2%) of them reside both in the farmers' circle(community) and outside the circle respectively. Ideally, farmers' –extension agents' contacts is on fortnightly basis while the extension agents are required to reside within the farmers' circles (community) under their jurisdiction. The method of extension teaching employed by the extension agents was mostly group contact (59.2%), while 16.70% of the respondents indicated that the agents employed all the teaching methods and the least (9.2%) attested that individual and mass media methods were used for extension service delivery in the study area. Meanwhile, the ideal ADP extension approach to extension service delivery in the state is group contact. Nwachukwu (2003) argues that mass media provides a more excellent way of reaching people since the ratio of extension agents to farmers is abysmally poor and mass media like television has audio and visual component which makes it effective for teaching farmers.

Table 2: Farmers Perception of ADP Extension Agents' Job Performance in Ebonyi State.

Assessment of job	Variable description	Frequency (n=174)*	Percentage
Place of visit	Home	27	15.5
	Farm	37	21.3
	Home and farm	110	63.2
Frequency of agent's visit	Weekly	37	21.3
	Fortnightly	50	28.7
	Monthly	50	28.7
	Quarterly	10	5.7
	Yearly	27	15.5
Place of agent's residence	Within the circle	30	17.2
	Outside the circle	40	23.0
	Council's headquarter	101	58.1
	State capital	3	1.7
Teaching method	Individual method	16	9.2
	Group contact	103	59.2
	Mass media	26	9.2
	ICT	-	-
	All of the above	29	16.7
Establishment of SPAT	Yes	152	87.4
	No	22	12.6

*Multiple Responses Recorded

Effect of Socio-economic Characteristics of Extension Agent on their Job Performance

The result in Table 3 showed that the coefficients of age (0.003), educational qualification (0.380), sex (0.226), additional training (0.173), salary (0.000), job security (0.019) and promotion (0.739) were positively signed; implying that a unit increase in these variables could lead to increase in job performance of extension agents. Also, the following variables: educational qualification, additional training, salary and job security were statistically significant at 1%, 5% and 10% levels of probability respectively. This means that these variables significantly influence extension agents job performance in Ebonyi State. However, the coefficients of marital status (-0.389), mobility (-0.019), and working experience (-0.014) were negatively related to job performance of extension agents. Thus, marital status of the extension agents has no influence on their job performance and a unit increase in these other variables could result in corresponding decrease in job performance of extension agents in Ebonyi State. The good fit of the model was attested to by the high value of Chi-square (642.303). The overall model was statistically significant (P<0.01), indicating that the socioeconomic characteristics of extension agents exert significant effect on their job performance.**Age:** The coefficient of age was positively signed but statistically insignificant. This means that the age of the extension agents does not in any way affect their job performance in study area. This implies that the extension agents were still young and active to ensure effective extension services delivery. It confirms Okereke and Onu (2007) who noted that middle aged extension agents are capable of coping with the tedious and time bound extension services delivery. **Educational qualification:** The coefficient educational qualification of the respondent had positive sign and was statistically at 1%. The implication is that increase in the level of education of the extension agents result in increase in their job performance. It also implies that educational attainment of extension agents affects their job

performance. This result is in line with Ani(1998) who opined that education stimulates the ability to obtain, decode and evaluated important information for agricultural growth and development. **Gender:** The coefficient of the gender was positively signed but statistically insignificant. This implies that the gender of the respondents has no significant effect on their job performance. This result disagrees with Adeola and Ayoade (2011) who posited that extension service are overshowed predominantly by men. **Marital status:** The coefficient of marital status of the extension agents was negatively signed but have no statistically significant at 1%. This implies that marital status of the respondents leads to their inefficiency. This means that married extension agent's attention and devotion are divided between their job and their families. This is contrary to Okwoche et al (2015) who stated that married extension agents are more devoted to their job and would not want to lose their job because of their greatest responsibilities at home. **Additional training:** The coefficient was positively signed and statistically significant at 1%. This implies that any additional training given to the extension agents in the extension work will increase their job performance in the study area. This means training and re-training have positive impact on the job performance of ADP extension agents in the study area. This collaborates Ibrahim et-al (2008) who posited that training and retraining extension agents help to upgrade their knowledge with current trends in agricultural and subsequently improves their job performance. **Salary:** The coefficient of the respondents was positively signed and statistically significant at 10%. This proves that the higher the salary of the extension agents the higher their job performance in the study area. It implies that salary has positive effect on extension agent's job performance. This result collaborates Okwoche et al. (2015) who noted that salary has a great impact on extension agent's job performance. **Mobility:** The coefficient of mobility was negatively signed but statistically insignificant. This implies that provision of mobility in the study area did not in any way effect the job performance of ADP extension agents. This result collaborates Ilevbaoje (2004) who noted that mobility does not affect ADP extension agent's job performance. **Working experience:** The coefficient of working experience of the respondents was negatively signed but statistically significant at 5%. This indicate that increase in the number of years of working experience of the ADP extension agents will lead to increase in their job performance. In conformity with this result, Obiora (2012) stated that working experience is a vital tool that helps to increase the job performance of ADP extension agents who are charged with the responsibility of disseminating useful information to farmers. **Job security:** the coefficient of job security of the respondents was positively signed and statically significant at 5%. This implies that job security of the extension agents in the study area affects their job performance positively. This is in conformity with Akinsorotan and Adesiji (2001) statement that job security promotes job performance of village extension agents (VEA). **Promotion:** The coefficient was positively signedand statistically positive at 5% level of significance. This means that regular promotion of extension agents affects their job performance positively. This is in line with Ogisi et al. (2012) statement, that regular promotion enhances hard work and therefore job performance.

Table 3: Effect of Socio-economic Characteristics of Extension Agents on their Job Performance

Variable name	Coefficients	Std Error	Z-value
Constant	-4.068	2.049	-1.985**
Age	0.003	0.019	0.172NS
Educational qualification	0.380	0.642	0.592*
Sex	0.226	0.483	0.468NS
Marital status	-0.389	1.284	-3.03*
Additional training	0.173	0.653	0.264*
Salary	0.000	0.000	-2.82***
Mobility	-0.019	0.206	-0.095NS
Working experience	-0.014	0.039	-0.368**
Job security	0.019	0.830	0.023*
Promotion	0.739	0.752	0.982**
Chi-square	642.303*		

Source: Field Survey, 2015.
*, ** and *** indicates significant at 1%, 5% and 10% levels of probability respectively.

Agency, Environment and Clientele-related Factors Affecting the Job Performance of the Extension Agents.

The result in Table 4 accordingly shows the factors that affect job performance of ADP extension agents in the study area. These factors were examined based on the nature of their effects-whether they have positive or negative effects. In the first category – agency related factors; it was observed that all the variables positively influence extension agents' job performance in the study area. The ratings were as follows: regular and prompt payment of salaries & allowances (74.3%), regular promotion (91.4%), provision of mobility (71.4%), provision of incentives (74.3%), periodical training and retraining (85.7%), regular monitoring and

supervision (80.0%), provision of welfare packages (74.3%), and job security (77.1%).On the second category of factors considered – extension environment related factors; it was observed that these factors had both positive and negative influence on job performance of extension agents. The rating indicates that prevailing culture (64.7%) and security of extension agents (60.0%) positively affects extension agents' job performance. Whereas, topography and accessibility of the area (71.4%), vastness of the area (68.6%) and land tenure system (51.4%) were observed to negatively affect job performance of extension agents, soil fertility (65.7%) enhanced their job performance.

Finally, the third category of factors examined revealed that farmers' level of education (60.0%) and homophily/heterophily (62.9%) positively affect extension agents' job performance while farmers' attitude to change (77.1%), farmers perception about extension agents (68.6%), language of farmers (68.6%), and farmer-agent ratio (91.4%) negatively affect job performance of extension agents in the study area. It collaborates Akinsorotan and Adesiji (2011), Ogbonna (2010) who posited that education is bedrock for agricultural transformation while factors like farmers attitude to change, farmers perception about extension agents, language of farmers and farmers-extension agent ratio negatively affected the job performance of ADP extension agents in the study area. It implied that these factors militated against the job performance of ADP extension agents in the study area.

Table 4: Distribution of the Extension Agents According to Agency, Environment and Clientele-related Factors that Affect their Job Performance in Ebonyi State

Category	Factors	Positive	Negative
Agency related factor	Regular and prompt payment of salaries & allowances	26(74.3)	9(25.7)
	Regular promotion	32(91.4)	3(8.6)
	Provision of mobility	25(71.4)	10(28.6)
	Provision of incentives	26(74.3)	9(25.7)
	Periodical training and retraining	30(85.7)	5(14.3)
	Regular monitoring and supervision	28(80.0)	7(20.0)
	Provision of welfare packages	26(74.3)	9(25.7)
	Job security	27(77.1)	8(22.9)
Extension environment	Settlement pattern	24(68.6)	11(31.4)
	Topography and accessibility of the area	10(28.6)	25(71.4)
	Vastness of the area	11(31.4)	24(68.6)
	Prevailing culture	23(65.7)	12(34.3)
	Security of extension agent	21(60.0)	14(40.0)
	Land tenure system	17(48.6)	18(51.4)
	Soil fertility	12(34.3)	23(65.7)
Clientele related factor	Farmers' income	27(77.1)	8(22.9)
	Farmers level of education	21(60.0)	14(40.0)
	Farmer attitude to change	8(22.9)	27(77.1)
	Homophily/heterophily	22(62.9)	13(37.1)
	Farmers perception about extension agent	13(37.1)	22(62.9)
	Language of farmer	11(31.4)	24(68.6)
	Farmer-agent ratio	3(8.6)	32(91.4)

Figures in parenthesis are in percentage

Constraints to Effective Extension Service Delivery in Ebonyi State

Factor analysis was employed to analyze constraints militating against extension service delivery in Ebonyi State. The interpretation boils down to identifying variables that load high in each component matrix which were used in naming the factors. According to Kaiser's (1958) rule of thumb, variables with a coefficient of 0.40 or more have high loading and may be used in naming a factor. This rule has been generally applied by (Nwibo and Okorie 2013); Ezeh, 2013). Hence, only variables with factor loading of 0.40 and that are at 10% overlapping variance were used in naming the constraints in this analysis. The summary of the result is presented in Table 6.The result shows that three components militated against effective extension service delivery in Ebonyi State. These were: component one (institutional constraints), component two (economic constraints), and component three (social constraints). Under component I, the following variables that related to institutional constraints loaded high, these include: inadequate manpower (0.917), lack of mobility (0.893), inadequate supply of farm inputs (0.747), management-staff relationship (0.674), poor monitoring and supervision (0.535), organizational structure (0.533), poor extension linkages (0.504) and irregular payment of salaries and allowances (0.499). component II (Economic Constraints) was poor funding (0.771) while variables that loaded high in component III (Social Constraints) were: wrong attitude of extension agent (0.90), and lack of social amenities (0.819).

Table 5: Varimax Rotated Factor Matrix on Constraints to Effective Extension Service Delivery in Eboyi State

Variable name	Factor I Institutional Constraints	Factor II Economic Constraints	Factor III Social Constraints
Irregular payment of salaries and allowances	0.499	0.299	-0.402
Lack of mobility	0.893	0.057	0.082
Poor monitoring and supervision	0.535	0.174	0.120
Inadequate supply of farm inputs	0.747	0.075	-0.117
Inadequate man-power	0.917	0.004	-0.063
Lack of social amenities	0.037	0.116	0.819
Poor funding	0.022	0.771	0.331
Wrong attitude of extension agent	0.061	0.114	0.900
Poor extension linkages	0.504	0.001	-0.514
Organizational structure	0.533	-0.241	0.113
Management-staff relationship	0.674	0.173	0.018

Mean Score Rating of Extension Agents' Job Performance by Contact Farmers in the Study Area

The result in Table 6 shows the responses of contact farmers on ADP extension agents' job performance in terms of extension service delivery and implementation in the study area. From the analysis, it was observed that the farmers rated extension agents high in administration and implementation of the following extension activities: programme planning $(\overline{X} = 3.4)$, farm and home visit $(\overline{X} = 3.6)$, conducting of demonstration $(\overline{X} = 3.2)$, training contact farmers $(X = 3.4)$, organizing farmers into cooperative society $(X = 3.3)$, dissemination of useful information form research $(\overline{X} = 3.5)$, organizing regular meeting with the farmers $(\overline{X} = 2.9)$, proffering solution to identified problem $(\overline{X} = 3.2)$, and development of local leadership $(\overline{X} = 2.6)$.

Table 6: Mean Score Rating of Extension Agents' Job Performance by Contact Farmers in the Study Area

Activities	Mean Score	Decision rule
Programme planning	3.4	Accepted
Farm and home visit	3.6	Accepted
Distribution of farm inputs	2.3	Rejected
Conducting of demonstration	3.2	Accepted
Organizing farm and field trip	2.2	Rejected
Training contact farmers	3.4	Accepted
Organizing farmers into cooperative society	3.3	Accepted
Disseminating useful information from research	3.5	Accepted
Help farmers to obtain credits and loan	2.0	Rejected
Organizing regular meeting with the famers	2.9	Accepted
Proffering solution to identified problem	3.2	Accepted
Development of local leadership	2.6	Accepted

Test of Hypothesis One

Table 7 showed Chi-square value was 642.303, the Nagelkerke Pseudo R^2 of 0.812 was chosen as providing the most sufficient explanation about the model used. This is because its value is greater than the significance level of 0.05 (P = 0.05). The Pseudo R^2 value shows the variance explained by the model gives a good impression regarding the model's goodness of fit. Therefore, the alternative hypothesis was accepted that the socioeconomic characteristics of the extension agents had significant influence on their job performance in Ebonyi State.

Table 7: Pseudo R^2 Test of Hypothesis Two

Sample size (n=35)	X^2 (642.303)	D.f (33)	Pseudo R^2	Decision (P=0.05)
Cox & Snell R-square			0.607	
Nagelkerke R-square			0.812	Accept
McFadden R-square			0.678	

IV. Conclusion

The study showed that ADP extension agents established less Small Plot Adoption Techniques (SPATs) than the required number of 10 in all the components used for appraising their job performance. The study also revealed that extension agents' visit to farmers on fortnightly basis which is the recommended scheduled time was only 28.7%. These indicate that the extension agents' job performance was generally low. This may be due to the fact that majority of the ADP extension agents reside outside their circle as revealed by

the study. Nevertheless, the extension agents were rated high in administration and implementation of ADP extension activities such as: programme planning, farm and home visit, conducting of demonstration, training of contact farmers, organizing farmers into cooperative society, dissemination of useful information from research, organizing regular meeting with the farmers, proffering solution to identified problem and development of local leadership skills.

The study further revealed that provisions of incentives, mobility, regular and prompt payment of salaries and allowances, regular monitoring and supervision of extension agents, periodic training and re-training of extension agents, job security, and regular promotion have positive relationship with job performance of ADP extension agents in the study area. Moreso, the study established that socio-economic attributes of farmers and extension agents exert significant influence on the job performance of ADP extension agent.

V.   Recommendations

Based on the findings of this research work, the following recommendations were made:

1.   government should make the farming communities attractive by establishing social amenities in these areas. This will encourage the ADP extension agents to dwell within their circle, thereby get committed to their duties and responsibilities, which invariably will enhance their job performance.

2.   staff strength Of ADP should be beefed up through recruitment of qualified personnel in order to reduce their work load on extension service delivery.

3.   timely and adequate supply of agricultural inputs should be provided to farmers to enable them to improve on their farm production and productivity.

4.   government should prevail on financial institutions to create enabling environment for farmers to have unhindered access to credit facilities. This will empower them to have the financial muscle to acquire and adopt innovations and recommended practices of ADP.

5.   the extension service delivery should be geared towards persuading farmers to accept and adopt innovative practices that will help to improve on their general wellbeing.

6.   government should ensure better welfare packages for extension agents through regular payment of salaries and allowances, regular promotion and provision of incentives.

7.   the management of ADP should put in place mechanism for enhancing management extension agents' relationship as well as regular monitoring and supervision of field agents' activities. This will enable them to step up their extension responsibilities in the study area.

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