
**ASSESSING THE GENDER GAPS IN EXTENSION DELIVERY SERVICES IN
EBONYI STATE NIGERIA**

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ABSTRACT

This study assessed gender gaps in extension delivery services in Ebonyi State Nigeria, based on the following objectives: describe the socio-economic characteristics of the extension agents in the study area, assess gender involvement in extension delivery services, and determine factors affecting the respondents' access to extension delivery services. Primary data were collected from 120 (60 males and 60 females) randomly selected extension agents in Ebonyi State, using a structured interview schedule. Qualitative and quantitative statistical tools were employed for data analyses. The major findings were that both genders were well-educated with the female extension workers having a higher percentage. The findings further showed that female extension workers were more involved in extension services delivery, such as training, farmers meetings, MTRM, FNT, and monitoring and evaluation, while their male counterparts were more involved in enumeration work. The result of the organizational factors affecting extension workers in extension services delivery showed that the male extension workers were affected by eleven out of fourteen factors in delivering their extension services with a mean score of ($\bar{x}=2.38$) The study further concluded that the socioeconomic profile such as marital status, distance from office to field, working experience and age had a lot of bearing on their involvement in extension services delivery. The study therefore, called for policies aimed at giving gender-equitable services, motivating extension agents, and increasing the proportion of women extension officers using quota to have an adequate number of female extension workers to effectively attend to female farmers/clients in Nigeria and fill the existing gender gaps in extension services delivery in ADPs.

Keywords: Gender, Gaps, Extension Services Delivery

INTRODUCTION

In Nigeria, Agricultural Development Programme (ADP) plays the primary role of extension delivery services in the agricultural sector. ADPs linkage strategies in REFILS which include training/workshops, farmers meetings, monthly technology review meetings (MTRM), fortnightly training sessions (FNT), monitoring and evaluation, and enumerator work, among others, are highly needed in updating and upgrading the professional skills of extension workers for effective service delivery. Agricultural programmes in Nigeria have been designed to benefit the generality of farmers but have often resulted in unintended socio-economic inequalities along gender lines (Harry and Ladu, 2018). The efficiency of technologies generated and disseminated depends on the effective participation of gender, farmers, and communication, which is the key process of information dissemination (Manfre *et al.*, 2013). A significant problem in gender disparity is that in many courses of study, in-service training, and education in extension methodology, there is insufficient examination and discussion of the roles of rural men and women in agricultural production and rural development (FAO, 2016)

However, agricultural extension services need to take account of the different gender roles and involvement of men and women and the constraints they face in discharging their duties. It is obvious that gender gaps in technology delivery impose real costs on societies in terms of untapped potential leading to suboptimal agricultural development (Nnadozie *et al.*, 2015). The main reason behind the exclusion of women is that extension services are often designed and disseminated by men who do not necessarily regard women as part of their target group. Furthermore, they do not take women's productive and reproductive roles and preferences into consideration. Training Women extension workers in particular could help fill the extension gaps between men and women in our societies. Harry and Ladu (2018) documented that woman farmers who were visited by female extension workers in Nigeria participated more in extension programmes and adopted new technologies than women who received extension advisory services from males. Against this backdrop, it was considered pertinent to assess gender gaps in extension delivery services in South Eastern Nigeria with a particular focus on Ebonyi State.

Objectives of the Study

The specific objectives of the study include to:

- i. describe the socioeconomic profile of the respondents;
- ii. assess gender involvement in extension delivery services in the study area; and
- iii. determine factors affecting the respondents' access to extension delivery services in Ebonyi State, Nigeria.

METHODOLOGY

The study was conducted in Ebonyi State Nigeria. A multi-stage randomized sampling procedure was used to select 120 extension workers for the study. The three Agricultural Zones, Ebonyi North, Central, and South were purposively selected. This was because the study was meant to be conducted among the staff of the Agricultural Development Programme (ADP) in Ebonyi State. The next stage involved the selection of 40 extension agents (20 males and 20 females) from each of the 3 Agricultural Zones, giving us a total of 60 extension male workers and 60 extension female workers and a grand total of 120 respondents. Questionnaire was used in the collection of data from the respondents. Data collected were analyzed as follows: objectives 1 on the socio-economic

profile of the respondents and 2 on gender involvement in extension delivery services in the study area were analyzed with descriptive statistics (percentages and means); objective 3 on factors affecting the respondents' access to extension delivery services was measured on a 3-point rating scale. The points were very serious=3, serious =2, and never serious=1. Respondents with a mean score of 2.0 and above indicate mild and serious factors while respondents with a mean score less than 2.0 were viewed as not serious factors. The procedure was used following Amadi *et al*, (2018):

$$\bar{x} = \frac{\sum f}{n}$$

Where;

\bar{x} = mean

Σ = summation

f = frequency

n = number of respondents

$$\bar{x} = \frac{3 + 2 + 1}{3} = 2$$

The linear regression model was used to determine the relationship between socioeconomic profile and factors affecting extension service delivery.

RESULTS AND DISCUSSION

Selected socioeconomic profile of the extension workers

The socioeconomic profile of the extension workers in assessing the gender gaps in extension delivery services is presented in Table 1. The result showed that the majority of the males (56.67%) and females (53.33%) extension workers fell within the age range of 40-49 years and it is an indication that the workers fell within the economically productive proportion of the population that is likely to effectively deliver extension services in Ebonyi state. This is consistent with the findings of Ayanwuyi and Akintode, (2011). Furthermore, both genders were well-educated with the female extension workers having higher percentage. Formal education is important for impacting literacy and numeracy skills which is necessary for farm planning and budgeting. The result revealed that the majority (53.33%) of the males and (55.00%) of the females had between 5-9 persons eating and living together under the same roof. This indicated that the extension workers had average family size which could serve as a source of help. This finding agrees with that of Nwaihu *et al*, (2016), that availability of persons for the provision of family labour is commendable. More so, the majority of the males 73.33%, and females 75.00% had worked for 10-19 years as extension agents in the study area. This implies that the more the experience the more they are committed to extension services delivery. About 46.67% of the male and 40.00% of the female workers had 3-4.5km as the distance from their offices to the field. This showed that the fields were far from their offices.

Table 1: Socio-economic characteristics of Extension Workers

Variables	Male	Female
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	Frequency		Percentages	
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Age				
20-29	2	3.33	0	0
30-39	12	20.00	24	40.00
40-49	34	56.67	32	53.33
50-59	12	20.00	4	6.67
Educational attainment				
OND	6	10.00	8	13.33
HND	30	50.00	36	60.00
BSc	8	13.33	10	16.67
MSc	14	23.33	5	8.33
Ph.D.	2	3.33	1	1.67
Household size				
1-4	14	23.33	20	33.33
5-9	32	53.33	33	55.00
10-15	14	23.33	7	11.67
Working Experience				
1-9	6	10.00	11	18.33
10-19	44	73.33	45	75.00
20-29	10	16.67	4	6.67
Distance from office to field				
1-2.5km	22	36.67	22	36.66
3-4.5km	28	46.67	24	40.00
5-6.5km	8	13.33	4	6.67
7-8.5km	2	3.33	10	16.67
Total	60	100	60	100

Source: Field Survey, 2022.

Gender involvement in extension services delivery

Results presented in Table 2 showed that 86.66% of the males, 93.33% of the females, 3.33% of the youths, and 3.33% of the vulnerable agreed that extension workers were involved in training activities. Involving extension workers in training activities will get them fortified to handle training & visits, which is an effective managerial tool that facilitates the efficient implementation of known extension principles. Similarly, 96.66% of the males, 100.00% of the females, and 1.66% of the youths and vulnerable respectively were of the opinion that extension workers participate in farmers' meetings diligently. The Participation of extension agents in farmers' meetings also shapes the influence that men and women farmers have on the content of EAS programs and how it is delivered and it makes feedback faster and timely. The result further showed that 90.00% of the males, 100.00% of the females, and 1.66% of the youths agreed that they participate in monthly technology review meetings (MTRM) of the ADP in Ebonyi State. For effective extension services delivery, both male and female extension workers influence balance at the Monthly Technology Review Meeting (MTRM) session and such arrangement ensures the consistency and appropriateness of technology recommendation and impact points. The implication is that it helps to build up cumulative pressure on research to solve farm problems. Also, 93.33% of the males

and 100.00% of the females agreed that they get involved in fortnightly training of the ADP in Ebonyi State. Subsequently, (73.33%) of the male, (76.66%) of the female, and (1.66%) of the youths agreed to be involved in monitoring and evaluation activities while (78.33%) of the male, (56.66%) of the female, (3.33%) of the youths and (1.66%) of the vulnerable were of the opinion that extension workers also do enumerator work. Therefore, this implied that female extension workers were more involved in five out of the six extension services delivery. More male workers were involved in enumerator work than their female counterparts. The result implies that female extension workers should be involved in the enumerator activities to enable women farmers to have the thorough release of information without gender barriers. Nevertheless, women are now viewed as critical actors in agricultural development, and this recognition needs to translate into more equitably designed services and mechanisms for influencing extension policies and practices (Manfre *et al.*, 2018). More importantly, recruiting more women extension agents as a strategy for improving access to women farmers may be very necessary.

Table 2: Gender involvement in extension service delivery (n=60 male, 60 female)

Options	Training	Farmers meeting	MTRM	FNT	Monitoring and Evaluation	Enumerator
Male	52(86.66)	58(96.66)	54(90.00)	56(93.33)	44(73.33)	47(78.33)
Female	56(93.33)	60(100.00)	60(100)	60(100)	46(76.66)	34(56.66)
Youth	2(3.33)	1(1.66)	1(1.66)	0(0)	1(1.66)	2(3.33)
Vulnerable	2(3.33)	1(1.66)	0(0)	0(0)	0(0)	1(1.66)

Source: Field Survey, 2022 Note: figures in parenthesis are percentages

Factors affecting extension workers in extension services delivery in Ebonyi State

The organizational factors affecting extension workers in extension services delivery were analyzed and presented in Table 3 and it shows that the male extension workers were affected by eleven out of fourteen factors in delivering their extension services with a mean score of $\bar{x}=2.38$ which is highly greater than the decision mean cut off of $\bar{x}=2.0$. Items such as operational fund ($\bar{x}=2.97$), working materials ($\bar{x}=2.93$), gender issues ($\bar{x}=2.75$), transportation ($\bar{x}=2.93$), technical know-how ($\bar{x}=2.57$), security ($\bar{x}=2.55$) and location of projects ($\bar{x}=2.40$) are major factors affecting male extension workers in delivery the services in the study area. Therefore, it implies that resources for the delivery of extension activities were inadequate. When operational funds for working materials, high cost of transportation, and insecurity among others are serious challenges to extension services delivery, effective delivery is compromised. Simultaneously, the female extension workers are also affected by eleven out of fourteen factors in delivering their extension services with a mean score of $\bar{x}=2.06$ which is slightly greater than the decision mean cut-off of $\bar{x}=2.0$. Items such as operational fund ($\bar{x}=3.00$), working materials ($\bar{x}=2.97$), transportation ($\bar{x}=2.90$), gender issues ($\bar{x}=2.83$), technical know-how ($\bar{x}=2.57$) and location of projects ($\bar{x}=2.50$) are major factors affecting female extension workers in delivery the services in the study area. This implies that male extension workers are more affected by the aforementioned factors than their female counterparts in ADP. When operational funds/resources for teaching and learning experiences are inadequate knowledge/information sharing is compromised (Ekwe and Ukawolu, 2016).

Table 3: Factors affecting Extension workers in extension services delivery

Options (Male)	Very Serious	Serious	Never	Total	Mean
Fund	58(174)	2(4)	0(0)	178	2.97
Working materials	56(168)	4(8)	0(0)	176	2.93
Transportation	56(168)	4(8)	0(0)	176	2.93
Security	23(69)	37(74)	10(10)	153	2.55
Technical Knowhow (Knowledge)	40(120)	14(28)	6(6)	154	2.57
Proper Training (Training and Retraining)	22(66)	26(52)	12(120)	130	2.17
Socio-cultural factors	30(90)	20(40)	10(10)	140	2.33
Location of projects	34(102)	16(32)	10(10)	144	2.40
Poor road network	12(36)	38(76)	10(10)	122	2.03
Logistics problems	16(48)	38(76)	6(6)	130	2.17
Gender	45(135)	15(30)	0(0)	165	2.75
Grand mean					2.38
Options (Female)	Very Serious	Serious	Never	Total	Mean
Fund	60(180)	0(0)	0(0)	180	3.00
Working materials	58(174)	2(4)	0(0)	178	2.97
Transportation	56(168)	2(4)	2(2)	174	2.90
Security	14(42)	32(64)	14(14)	120	2.00
Educational Qualification	14(42)	32(64)	14(14)	120	2.00
Technical Knowhow (Knowledge)	34(102)	26(52)	0(0)	154	2.57
Proper Training (Training and Retraining)	21(63)	24(48)	15(15)	126	2.1
Socio-cultural factors	20(60)	29(58)	11(11)	129	2.15
Location of projects	30(90)	24(48)	6(6)	144	2.50
Poor road network	22(66)	25(50)	13(13)	129	2.15
Gender	50(150)	10(20)	0(0)	170	2.83
Grand mean					2.06

Source: Field Survey, 2022

Linear regression analysis of the relationship between the socio-economic profile of the extension workers and factors affecting their extension service delivery.

The result in Table 5 shows the linear regression estimates of the relationship between selected socio-economic profiles and factors affecting their extension service delivery. The coefficient of the R² value of 0.3942 indicated that 39.4% of the variations in factors affecting extension services delivery were explained by the variables in the model. The F-value of 3.050 indicated that the regression model was significant at 1%. The coefficient for marital status (2.03**) and distance from the office to the field (2.23**) was positive and significant at a 5% level of probability. This implies that the marital status of extension workers necessarily enhances extension services delivery in the study area. Similarly, proximity to the field from the office is an advantage to the service delivery. This is in agreement with *a priori expectation* since increased marital status and distance from office to field will result in a corresponding increase in delivering the extension services. This agrees with *a priori* expectations and findings of Poly-Mbah, and Udeogu, (2007), who married people, are more committed to agricultural activities. On the other hand, the coefficient of age (-3.23***) and working experience (-2.79**) was negatively related to extension services delivery but highly significant at 1% and 5% level of probability respectively. This

indicated that the more the extension workers advance in age and work experience the less they get involved in extension services delivery. The finding disagrees with Yisehak, (2008) and Yemisi and Aisha, (2009) who were of the view that an increase in the age and experience of respondents has a positive and direct relationship with technology enhancement and agricultural development activities.

Table 4: Linear regression analysis of the relationship between socio-economic characteristics and factors affecting extension service delivery

Variables	Coefficient	Standard error	t- value	Significant
Constant	2.7544	0.3254	8.46***	0.000
Age	-0.0002	0.0000	-3.23***	0.000
Gender	0.05134	0.0842	0.61	0.543
Marital status	0.22897	0.11289	2.03**	0.045
Education	-0.0057	0.01624	-0.35	0.724
Household size	0.00162	0.01629	0.10	0.921
Working Experience	0.01058	0.00378	-2.79**	0.018
Distance from office to field	0.06235	0.02798	2.23**	0.028
R ²	0.3942			
R adjusted	0.3890			
F- statistics	3.050			

Source: Field Survey, 2022

CONCLUSION

The study concluded that female extension workers were more involved in extension service delivery activities in the study area. However, male extension workers are seriously affected by some factors such as funds, working materials, and transportation in delivering their extension services than their female counterparts. The study further concluded that the socio-economic profile such as marital status, distance from the office to the field, working experience, and age have a lot of bearing on their involvement in extension services delivery. The study, therefore, calls for policies aimed at giving gender-equitable services and increasing the proportion of women extension officers using quota to have an adequate number of female extension workers to effectively attend to female farmers/clients in Nigeria. This policy if implemented and sustained will fill the existing gender gaps in extension services delivery in ADPs.

REFERENCES

- Agbamu, J.U (2007) “Essential of Agricultural Communication in Nigeria” Delta State University, Asaba Malthouse Press pp. 47-56.
- Amadi, P.E. Alleluyanatha, E. and Ibe, M.N. (2018). Factors Influencing Rural Women’s Participation in Cassava Production and Processing in Edo State, Nigeria. *Journal of Community & Communication Research (JCCR)*.3(1):47-53. www.jccr.org.ng
- Ayanwuyi, E. and Akintode, J.O. (2011). Income Generating Activities among Rural Women in Ensuring Household Food Security in Ila Local Government, Osun state, Nigeria. *World J Young Researchers Journals*, ISSN 2249-0566.
- Ekwe, K.C and Ukanwolu, G.K (2016). Factors Influencing Conduct of Monthly Technology Review Meetings (MTRM) of Agricultural Development Programme of Imo State, Nigeria. *Journal of Community and Communication Research*, 1 (2&3):19-24.
- FAO, (2016) Capacity Strengthening in National Project Execution, State-wide Training *Background Documentation p.8*.
- Harry, A.I. and Ladu, T. (2018) Assessment of Gender Participation in Private Agricultural Extension System in Rivers State, Nigeria *International Journal of Agriculture and Earth Science* Vol. 4 No. 6 ISSN 2489-0081 2018 www.iiardpub.org.
- Manfre, C., Rubin, D., Allen, A., Summerfield, G., Colverson, K and Akeredolu, M.(2018). Reducing the gender gap in agricultural extension and advisory services, Discussion Paper produced as part of the United States Agency for International Development (USAID) project “Modernizing Extension and Advisory Services” (MEAS, www.meas-extension.org).
- Nnadozie, A, Nwaobiala, K.O, Chioma, U and Mkpado, M. (2015) Evaluation of Research – Extension-Farmer-Linkage-System by Agricultural Development Programme in Nigeria *Contemporary Issues in Agricultural Extension and Rural Development*. Department of Agricultural Extension and Rural Development, Michael Okpara University of Agriculture, Umudike. Pp.331-335
- Nwaihu, E.C, Egbuche, C.T, Onubuogu, G.C, Umeojiakor, A., Osugiri, and Anyanwu, C.N (2016): Evaluation of Awareness, Participation and Perception of Farmers Field School Approach for Food Security in Imo State, Nigeria. *Journal of Community and Communication Research*, www.sccdr.org. 1(1):45-50.
- Oladele, O.I, Adesicope, O. M. and Chiamka N. Atama (2007) *Contemporary Issues in Agricultural Extension and Development Studies Series 1*. pp. 83-84.
- Poly-Mbah, C. P. and Udeogu, B.C (2007). Women Participation in Root Crops Production: A Case of Njaba, Imo State. *International Journal of Agriculture and Rural Development* 10(2): 150-153.
- Yemisi, I, O and Aisha, A. M (2009) Gender Issues in Agriculture and Rural Development in Nigeria: The Role of Women. *Humanity & Social Sciences Journal* 4 (1): 19-30.
- Yisehak, K. (2008): Gender Responsibility in Small Holder Mixed-Crop Livestock Production System of Jimma Zone, Southwest Ethiopia. *Livestock Research for Rural Development*. 20(11).