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# ASSESSMENT OF RELATIONSHIP BETWEEN SOCIO-ECONOMIC CHARACTERISTICS AND JOB PERFORMANCE OF AGRICULTURAL DEVELOPMENT PROGRAMME EXTENSION AGENTS IN THE NORTH-EAST, NIGERIA

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**Abstract**
*The study assessed relationship between socioeconomic characteristics and job performance of Agricultural Development Programmes Extension Agents in the North-East Nigeria. The population of this consisted of all agricultural Extension agents of ADP in the North-East, Nigeria.-. Primary data were obtained from 202 extension agents using structured questionnaire. Combination of multistage, purposive and random sampling methods were used to select extension agents. Data were analyzed using descriptive and inferential statistics. Results shows that majority (71.7%) of the extension agents were within the age bracket of 21-50 years. Majority (71.3%) of them were male, 45% were married, almost all had higher education qualification, 63% had more than ₦50,000 monthly income. The following explanatory variables: Marital Status (p = 0.003), Education (p=0.000), Experience (p = 0.005), and Income (p=0.000), had significantly influenced extension agents' job performance. Increase in work load (Mean=3.41), inadequate of funding (Mean= 3.11), inadequate incentive (Mean=3.13), inadequate education resource (Mean= 3.17), inadequate of credit resource (Mean = 3.17) and inadequate personnel motivation (Mean =3.81), were found to be most significant barriers to extension agents' job-related performance. In order to enhance the performance, the following recommendations were made: Increase assistance to extension agents by supplying sufficient resources, cutting back on excessive workloads, and guaranteeing suitable budget allocations, organizations can improve support systems for extension agents. Enhancing Incentive and Financial Frameworks Organizations should examine and enhance the pay scale and incentives for extension agents in light of the effect that income has on job performance. Offering incentives based on performance can also increase drive and output. Addressing support systems and the Organizational Climate by tackling systemic issues including insufficient budget, a lack of organizational support, and a lack of possibilities for professional advancement, organizations can create a more encouraging work environment.*

**Keywords:** Socio-Economic, Job Performance, Agricultural, Development Programme Extension Agents

## Introduction

Agricultural extension has long been associated with transfer of innovations from research centres to rural communities (Suweidu, 2019). It is expected to foster a sustainable and dynamic approach to agricultural development and remains a priority in government discourse and policy-making (Ikehi et al., 2023). Recognizing this importance, successive Nigerian governments have made significant efforts to enhance agricultural productivity and raise the income levels of rural populations. Over the years, the country has established several agricultural extension programs, one of which is the Agricultural Development Programmes (ADP). The Agricultural Development Programme was initiated in 1975 as a pilot program, whose success led to the establishment of statewide programmes. The ADPs aim to improve agricultural productivity, income, and the standard of living of small-scale farmers, who are central to Nigeria's agricultural growth initiatives

(Danjuma et al., 2021; Ayansina et al., 2020).

As agricultural extension organizations have evolved, they have become more bureaucratic, with hierarchical structures to manage dispersed extension workers effectively. This structural complexity often invites criticism for being overly centralized and top-heavy (Anderson & Feder, 2004). In many developing countries, extension services have been restructured and localized under national administrations following independence in 1960. Over the past 25 years, extension services have diversified their focus. In less-developed countries, the primary emphasis remains on food production and addressing the needs of small, resource-poor farmers. Efforts such as training and visit approach have been instrumental in achieving these goals. In developed countries, however, issues such as surplus production, environmental sustainability, and livestock welfare have become central to extension work. Socioeconomic guidance now includes strategies for maintaining income levels, adopting novel crops or livestock, and exploring rural enterprises while ensuring the long-term welfare of farmers and their families.

**Objective of the study**

The broad objective of the study was to assess relationship between socioeconomic characteristics and job performance of Agricultural Development Programme extension Agents in the North-Eastern Nigeria. The specific objectives were to:

I. describe the socioeconomic characteristics of extension agents in the region;
II. determine relationship between the socioeconomic characteristics and job performance of extension agents in the region; and
III. identify constraints affecting job performance of extension agents in the region.

**METHODOLOGY: The Study Area**

The study was carried out in the North Eastern, Nigeria. The zone comprises six States, namely; Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe states. The geographical location of the of Northeast Nigeria, lies between latitudes 6°20'N and 13°00'N and longitudes 9°00'E and 14°00'E, influences the region's varied climate. The area is known for its hot, semi-arid environment, which is most prevalent in the Northeastern sections. The annual rainfall in the region varies between 700 and 1550 mm. The wettest months of the rainy season are August and September, and it usually lasts three to six months. Relative humidity levels drop to about 13% during the dry season, which is most harsh from February to March. This increases the region's danger of drought and desertification. The difficulties caused by climate variability in this region are highlighted by recent statistics.

Data for this study was obtained from primary sources. Primary data were obtained through field survey using structured questionnaire to elicit information from the extension agents. A multistage sampling technique was employed to select a sample size of 202 extension agents for this study. In the first stage, three States: Adamawa, Gombe, and Taraba, were purposively selected due to their prominence in agriculture. The second stage involved selection of all the three ADP Zones in the selected States, resulting in a total of nine (9) ADP Zones for the study.

The third and final stage process involved random selection of extension agents from the identified Zones within the three States. Given the distribution of extension agents across the three States—Adamawa (138), Gombe (116), and Taraba (153). Taro Yamane's formula (1967) was employed to determine an appropriate sample size, which resulted in a total of 202 respondent.

**Determining sample size using Yamane's formula (1967).**

Formula given as: $n = \frac{N}{(1 + \mathrm{N(e)2}}$

Where,
n= sample size
N= population and;

e= error level of significant

**Table 1: Determination of sample size using Taro Yamene's formula**

| States (EAs) | Sampling frame of EAs | Sample size |
|---|---|---|
| 1.Adamawa | 138 | 68 |
| 2. Gombe | 116 | 58 |
| 3. Taraba | 153 | 76 |
| **Total: 3 States** | **407** | **202** |

**Source: Adapted from ADPs, 2025**

Data collected were analyzed using descriptive and inferential statistics. Descriptive statistics such as frequency, percentage, mean, standard deviation were used to analyse I and III , objectiveswhile Inferential Statistic in form of Multiple Linear Regression Model was deployed to analyze objective II.

## Results and Discussion

### Socio-economic charactertices

Table 1 shows that most (38.6%) numbers of the extension agents were within the age bracket of 31-40year, 37% were between the age of 41-50 years, 18.8% were between 21-30 years, 18.3% were between 41- 50 years, 5.4% were above 50 years of age and 18.8% were below 20 years of age. This implies that the majority of the extension agents were still in their vibrant age. The extension agents being within the active labour age, they can effectively cope with the demanding physical requirements of extension work. This finding aligns with Adeola and Oladipo (2022), who reported that within this age range, the skills acquired through training and retraining programmes can be effectively utilized in extension work for at least 16 years. The results also corroborate the findings of Iheanacho and Ezeh (2019), who noted that majority of frontline extension agents in southeastern Nigeria are within 30-40 age bracket, indicating their capacity to meet job demands.

**Table 1: Distribution of the Extension Agents Based on Socio-economic Characteristics (n=202)**

| Age (Years) | Freq. | Percentage |
|---|---|---|
| <20 | 38 | 18.8 |
| 21 – 30 | 38 | 18.8 |
| 31 – 40 | 78 | 38.6 |
| 41 – 50 | 37 | 18.3 |
| >50 | 11 | 5.4 |
| **Sex** | | |
| Male | 144 | 71.3 |
| Female | 58 | 28.7 |
| Married | 91 | 45.0 |
| Single | 60 | 29.7 |
| Divorced | 32 | 15.8 |
| Widow | 19 | 9.4 |

| | | |
|---|---|---|
| **Education** | | |
| Diploma | 16 | 7.9 |
| Degree | 68 | 33.7 |
| M.Sc. | 79 | 39.1 |
| Ph.D | 39 | 19.3 |
| **Experience (in years)** | | |
| 1-9 | 30 | 14.9 |
| 10-18 | 57 | 28.2 |
| 19-27 | 65 | 32.2 |
| 28-36 | 31 | 15.3 |
| >36 | 19 | 9.4 |

**Source: Field Survey (2025)**

**Gender of the extension agents**

Table 1 shows that majority (71.3%), of the extension agents were male, implying that men participate more in extension work. Extension works were engaged by men with the belief that it is only men that farm and that male extension agents were needed to reach them, (Miller, A. S., & Brown, T. D. 2021) This study's findings are in congruent with research report by Okereke and Onu, (2007) who stated that 59.0% of extension agents in Imo State are male as against 43.4% female in 2015.

**Marital Status of the Extension Agents**

The study revealed that 45.0% of the extension agents were married, 29.7% were single, and 9.4% were widowed. Marital status plays a significant role in determining an individual's commitment to social responsibilities. However, this also implies that married extension workers may have more domestic responsibilities, potentially leading to less time spent at work. These findings are in line with those of Afolabi and Olowolafe (2018), who reported that a greater percentage of extension workers were married in various studies conducted across Nigeria.

**Educational levels of the extension agents**

Table 1 showed that substantial (39.1%) number of the extension agents had Master's Degree, 33.7% had bachelor's degree, 19.3 had Ph.D, while few (7.9%), had diploma. This implies that the organizations have got workforce made up of highly educated and informed individuals, and the finding is in no agreement with the assertion of Ejembi *et al*, (2006), who assumed that in Nigeria, extension job is a low status job, fit only for people with low academic qualifications. Nevertheless, results of this study corroborate the findings of Madukwe et.al., (2005) who reported that majority of extension agents in Enugu State had at least higher certificates as education qualifications.

**Extension agents' job experience**

The findings showed that 32.2% of extension agents had 19-27 years of work experience, 15.3% had 28-36 years, 28.2% had 10-18 years, and 9.6% had more than 36 years. This indicates that the majority of employees are not new to the extension profession. According to recent studies, organizations that employ qualified and experienced employees tend to be more successful (Barney & Hesterly, 2019; Houghton et al., 2021). Experience affects job performance, with more experienced agricultural extension workers often showing greater flexibility in understanding and adapting to various internal work environments, leading to improved job performance (Smith et al., 2020). Conversely, extension agents with less experience may adhere more strictly to theoretical knowledge without as much practical adaptation (Gibson & Isaac, 2022)

**Extension Agents' Income**

The income distribution of extension agents in the study area reveals a striking disparity in earnings among the respondents. The majority (63.6%) earn above ₦50,000 per month, indicating that some extension workers receive relatively higher remuneration. However, a notable portion of the respondents earns considerably less, with 18.4% earning between ₦41,000–₦50,000 and 15.4% earning ₦40,000 or less monthly. Alarmingly, 7.4% of the agents earn ₦20,000 or less, which is exceptionally low given the economic realities in Nigeria. This is in contrary to a study by Fabusoro et al. (2008), emphasized that financial incentives are crucial for the motivation and performance of extension agents in Nigeria. This variability suggests a dual-income structure within the agricultural extension sector, where a significant portion of the workforce receives modest or substandard pay while a majority earn a relatively higher income. The skewed distribution reflects systemic inconsistencies in the financial reward system and highlights critical challenges for policy and organizational management in the sector.

**Table 1(b): Income Distribution of The Extension Agents**

| Monthly Income (₦) | Freq. | Percentage |
|---|---|---|
| <10000 | 8 | 3.7 |
| 11000-20000 | 6 | 2.8 |
| 21000-30000 | 2 | .9 |
| 31000-40000 | 8 | 3.7 |
| 41000-50000 | 40 | 18.4 |
| >50000 | 138 | 63.6 |

**Source: Field Survey (2025)**

**Relationship between Socioeconomic characteristics and job performance of Extension agents relationship**

Table 2 shows relationship between socioeconomic characteristics and job performance of the extension agents. The $R^2$ value of 0.6425 suggests that the model explains 64.25% of the variance in job performance, indicating a strong fit.

Table 2 shows that coefficient of Marital Status was found to be negatively (-1.7215) and statistically significant at 0.003, implying that marital status negatively influences job performance of the extension agents. Married extension agents might face challenges that affect their performance, such as balancing family and work responsibilities. These findings corroborate investigation reported by Onu and Obasi (2018) who found out that married extension agents often struggle to balance family and professional responsibilities, leading to reduced job effectiveness. Similarly, Okwu and Ejembi (2017) highlighted that marital status can reduce flexibility and availability for fieldwork, particularly in rural settings. Table 2 further reveals that coefficient of Education (2.7126)) was found to be positively and highly significant (p = 0.000). This highlights the critical role of education in enhancing job performance among extension agents. This result is in congruent with research findings reported by Chukwuma and Udo (2021) who established that higher education levels among extension agents significantly improved their ability to adopt and disseminate modern agricultural techniques. Along the same vein, Mensah and Okyere (2023) emphasized that education enhances decision-making, communication skills, and overall effectiveness in extension activities. Moreso, Table 2 shows that coefficient of Experience was positive (Coef. = 0.3127) and significant (p = 0.005), implying that extension agents' experience influences their job performance in the study area. Experienced extension agents tend to perform better due to familiarity with the job and accumulated skills over time. This finding is consistent with a research reported by Nwachukwu et al. (2019), who observed that experienced extension agents had better knowledge of local farming practices and cultural contexts, which increased their acceptance and effectiveness among farmers. On a similar note, Ahmed and Malik (2022) also noted

that experience correlates positively with performance due to skill accumulation and familiarity with extension methodologies. Table 2 shows that Income is positive (0.3791) and significantly (p=0.001) related with job performance This reinforces the importance of financial incentives in motivating better performance. The findings are in harmony with study results reported by Mensah and Okyere (2023) who found that extension agents with higher incomes are more motivated, as adequate financial rewards reduce job-related stress and improve satisfaction. It is also compatible with findings of Nwajiuba and Iheke (2021) who highlighted that better compensation leads to improved work output and lower turnover among extension workers.

**Table 2: Relationship between socioeconomic characteristics and job performance**

| Variables | Coef. | Std. error | T | P>\|t\| |
|---|---|---|---|---|
| Age | 0.0482 | 0.0739 | 0.65 | 0.512 |
| Sex | 0.9671 | 1.2153 | 0.80 | 0.421 |
| Marital status | -1.7215 | 0.5764 | -2.99 | 0.003** |
| Education | 2.7126 | 0.6548 | 4.14 | 0.000*** |
| Experience | 0.3127 | 0.1082 | 2.89 | 0.005** |
| Income | 0.3791 | 0.0897 | 4.23 | 0.000*** |
| Constant | 37.1024 | 16.8021 | 2.21 | 0.051 |
| R-square | 0.6425 | | | |
| F-value | 0.0000 | | | |

**Level of significant: *** at 0.1%, ** at 1%**
**Source: Field Survey (2025)**

**Constraints affecting extension agents' performance**

Table 3 shows a thorough picture of the difficulties extension agents encountered in carrying out their duties. The main conclusions shown that a number of issues, such as an increase in workload, insufficient budget, a lack of training opportunities, and a lack of organizational support contributed to decreased in performance effectively. Key findings are as follows:

Increased Workload: Based on the mean score of 3.41, a considerable proportion of extension agents report having a heavy workload, which has a detrimental influence on their productivity. This result is in line with studies that claimed high workloads might cause stress, burnout, and a decline in job satisfaction (Kerketta & Chauhan, 2023). Lack of Time: This problem likewise has a mean score of 2.71, making it noteworthy. Extension agents frequently have to balance a variety of obligations, which leaves them with little time to practice their skills. Insufficient Funding: A major obstacle that restricts resources for training and development is a lack of funding (mean of 3.11). This is consistent with research by Manzoor et al. (2021), which showed that insufficient funding might lower performance generally and impede the efficacy of training initiatives. Inadequate Training Opportunities and Incentives: The need for stronger support structures is shown by both the mean of 2.41% and the mean of 3.13% for inadequate training opportunities and incentives, respectively. Agents are discouraged from seeking further skills by the absence of incentives, and skill improvement is hampered by the scarcity of training options. Recent research supports this by highlighting the value of appropriate incentives and ongoing professional development in sustaining high performance (Kerketta & Chauhan, 2023; Manzoor et al., 2021). Inadequate Organizational Support and Resources: In order to do a job effectively, an organization's support and educational resources are essential. It is clear from the scores of 2.32 and 3.17 in these categories that extension agents feel underutilized. Sufficient resources and support networks are necessary to guarantee that agents can carry out their responsibilities efficiently (Alkandi et al., 2023). Personal Motivation and Credibility of Information: Two important variables are the presence of reliable information (mean of 3.17), and personal motivation (mean of 3.31). Inadequate incentives and resources may contribute to a lack of motivation, and a lack of reliable information may make it more difficult to

provide correct and efficient services. Current research highlighting the importance of motivation and reliable information in work performance supports this conclusion (Kerketta & Chauhan, 2023)

**Table 3: Constraints affecting extension agents' job performance**

| Variables | N | Sum | Mean | Std. Deviation |
|---|---|---|---|---|
| Increase workload | 202 | 584.00 | 3.41 | .84735 |
| Shortage of time | 202 | 450.00 | 2.71 | 1.18547 |
| Inadequate of funding | 202 | 542.00 | 3.11 | .91655 |
| Increase in personal costs related to acquire competency | 202 | 452.00 | 2.72 | 1.01129 |
| Inadequate of incentives for acquiring competencies | 202 | 530.00 | 3.13 | .94230 |
| inadequate training opportunities | 202 | 493.00 | 2.41 | .92448 |
| Ineffective training delivery methods | 202 | 493.00 | 2.41 | .92448 |
| Inadequate organizational support | 202 | 484.00 | 2.32 | .84735 |
| Inadequate educational resources | 202 | 543.00 | 3.17 | 1.15761 |
| Inadequate credible information | 202 | 543.00 | 3.17 | 1.15761 |
| Inadequate personal motivation | 202 | 552.00 | 3.31 | 1.01129 |
| Valid N (Listwise) | 202 | | | |

**Note. Scale: 1 = strongly agree; 2 = agree; 3 = neutral; 4 = disagree; 5 = strongly disagreed.**
**Source: Field Survey, 2015**

## Conclusion and Recommendations

### Conclusion

Conclusively, the paper revealed that extension agents indicated that some certain socioeconomic factors such as marital status, educational qualification, years of experience and incomes had significant influence on their job performance in the organization. Also, as revealed by the extension agents, number of issues such as: an increase in workload, insufficient budget, a lack of training opportunities, and a lack of organizational support contributed to decreased in job performance effectively.

### Recommendations

Based on the findings, the following recommendations were made:

i. Increase assistance to extension agents by supplying sufficient resources, cutting back on excessive workloads, and guaranteeing suitable budget allocations,
ii. Organizations can improve support systems for extension agents, extension agents should participate in regular training programs to enhance their knowledge and abilities, organizations should examine and enhance the pay scale and incentives for
iii. Extension agents in light of the effect that income has on job performance.
iv. Addressing support systems and the Organizational Climate by tackling systemic issues including insufficient budget, a lack of organizational ]support, and a lack of possibilities for professional advancement, organizations can create a more encouraging work environment. The efficiency and job satisfaction of extension agents will increase with the creation of a more supportive atmosphere.

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