

## Performance Motivation And Socioeconomic Characteristics: The Case Of The Extension Agents In Imo State, Nigeria

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### ABSTRACT:

This study was carried out to examine how the socioeconomic characteristics of the Extension Agents in Imo State, Nigeria, relate to their levels of motivation. A multistage sampling procedure was used to select 96 Extension Agents from Imo State for the study. First, two (2) Agricultural Zones, namely Owerri and Orlu, were randomly selected from the three (3) Agricultural Zones in the State. Secondly, eight (8) Extension Blocks were randomly chosen from each of the two (2) selected Agricultural Zones to give sixteen (16) Extension Blocks. Lastly, six (6) Extension Circles were randomly selected from each of the sixteen (16) Extension Blocks to give 96 Extension Circles and 96 Extension Agents for the study. A structured questionnaire was used for data collection, while descriptive and inferential statistics were employed to analyze the data. The findings showed that the male and female Extension Agents in Imo State had average levels of motivation of 3.26 and 3.18, respectively, and both were motivated to give the best of their service. Again, there was no significant difference in the motivation levels of male and female Extension Agents at a 5 % level of significance. The middle-aged {(40-49) years} Extension Agents were the most motivated age group among all the age brackets. The Extension Agents who hold B.Sc./B.A. AGRIC. had the highest level of motivation among all levels of education. With respect to work experience (WE), the most motivated group is the Extension Agents, who have 21-30 years of work experience. It was recommended that the Government should continue to give the male and female Extension Agents the same performance motivation incentives without preference for either sex. This is because our findings show that the two sexes were equally motivated. Motivation incentives should be graduated to favour more the middle-aged {(40-49) years} Extension Agents. This recommendation is tenable because it was found that the middle-aged {(40-49) years} Extension Agents had, on average, 3.27 points on motivation level and were the most motivated age group among all the age brackets. Furthermore, preference should be given to persons who hold B.Sc./B.A. Agric. when employing Extension Agents. This is because holders of B.Sc./B.A. Agric. had the highest level of performance motivation of 3.30 points compared with Extension Agents who hold other qualifications, namely OND and HND. Finally, motivation incentives should be graduated to favour the Extension Agents who have 21-30 years of work experience. Their average level of motivation is 3.26 points and is the highest among all years of work experience. **KEYWORDS:** *Performance, Motivation, Socioeconomic, Characteristics, Extension, Agents*

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## INTRODUCTION

The role of agricultural extension agents is very essential to improving human resources (HR) of farmers which in turn can improve the national Human Development Index (HDI) (Listiana *et al.*, 2019). Extension agents act as a bridge, linking researchers, policy makers, agencies and communities/farmers in the process of knowledge and technology transfer to rural communities/farmers (Hauser *et al.*, 2016; Bader *et al.*, 2021). Agricultural extension brings about changes in farmers' attitude, knowledge and skills through education and communication and help farmers in decision making (Ali *et al.*, 2012; Jeet *et al.*, 2020).

Adegebo (1993) enumerated the roles of extension agents to include, getting farmers in the right frame of mind to accept technological packages, helping farmers gain managerial skills to operate in a commercial economy by providing training and guidance to them in decision making on farm management and profitability, disseminate to the farmers the results of research and carry farmers production constraint back to research organization for solution. Other roles are formation of circles and sub-circles, selection of contact farmers, organization of field days, organization of farmers meeting, oversee that improved production technologies are effectively taught to farmers, and passing field problems to the appropriate authorities for solutions.

According to Machiadikwe *et al.* (2016) it is widely acknowledged that the motivation of workers, both in private and public organizations, leads to greater efficiency and effectiveness of workers, leading to higher productivity of the organization. To ensure high levels of motivation, administrators need to know and understand the socioeconomic characteristics of their employees.

Among the myriad of challenges confronting Nigeria today, food shortage is one of the greatest. According to Gutu (2016) one of the causes of this problem is the low morale and inefficiency among extension agents in transmitting information on agricultural production technologies to all the potential users who can adopt and produce food for their consumption and make available for others as well, which then in turn help to sustain socio-economic development in the long run.

The negative agency factors that affect field extension agents to include, lack of incentives for staff living in rural areas which normally lack amenities necessary for comfort and safety, transport allowances are not paid, housing facilities are not provided, no logistics for extension work and extension workers wallow in financial problems which affect performance. The absence of an effective extension system can lead to an impoverished rural life, uninformed farmers and an underdeveloped agricultural sector in a country (Jeet *et al.*, 2017).

In view of the problems highlighted in the preceding paragraphs, this study will provide answers to the following questions: (i) How does the gender of the Extension Agents in Imo State Agricultural Development Project (ADP) relate to the level of their performance motivation? (ii) Which age group of the Extension Agents have the highest level performance Motivation? (iii) What level of education of the Extension Agents is most motivated by the Imo State ADP motivation incentives? (iv) How many years of work experience of the Extension Agents is most motivated by the Imo State ADP performance motivation incentives?

The broad objective of the study was to analyze the socioeconomic characteristics of Agricultural Extension Agents in Imo State Agricultural Development Programme (ADP), in relation to their levels of motivation. The specific objectives are to: (i) examine how the gender of the Extension Agents in Imo State Agricultural Development Project (ADP) relate to the levels of their performance motivation; (ii) identify the age group of the Extension Agents with the highest level of performance Motivation; (iii) determine the level of education of the Extension Agents most motivated by the Imo State ADP motivation incentives; and (iv) find out the years of work experience of the Extension Agents most motivated by the performance motivation incentives of the Imo State ADP.

In order to achieve meaningful results, the following hypothesis expressed in null form was tested:  $H_0: \bar{X}_M - \bar{X}_F = 0$ . That is, there is no significant difference between the mean levels of the performance motivations of the male ( $\bar{X}_M$ ) and female ( $\bar{X}_F$ ) Extension Agents.

## LITERATURE REVIEW

Theories of motivation fall into two categories: content theories and process theories. Content theories place emphasis on what motivates. Process theories are more concerned with how behaviour is initiated, directed

and sustained or the actual process of motivation (Venugopalan, 2007). Major content theories are- Maslow's Hierarchy of Needs, McClelland's learned Needs Theory, McGregor's Theory X and Theory Y and Herzberg's Two-Factor Theory, while major process theories are – Expectancy Theory, Reinforcement Theory and Equity Theory. This study adopted the Equity Theory because it recognizes the role the socioeconomic characteristics of the Extension Agents play in their motivation.

### Equity Theory

This theory was developed by J. Stacy Adams and George C. Homans. Equity theory states that a major input into job performance and satisfaction is the degree of equity or inequity that people perceive in their work situation. In simple terms, this theory states that equity occurs when the ratio of a person's outcome to his inputs equals to the ratio of another person's output to inputs. Inequity occurs when a person perceives that the ratio of his outcomes to inputs and the ratio of a relevant other's outcomes to inputs are unequal. Here, the inputs include: education, social status, qualifications, age, organizational positions, training and working conditions and outcomes include rewards such as pay, promotion, status, recognition and the intrinsic interest in the job) of a person and others are based on the person's perceptions (Onuoha, 1991).

Equity theory assumes that people assess their performance and attitudes by comparing both their contribution to work and the benefits they derive from it to the contributions and benefits of another person. Equity theory further states that a person is motivated in proportion to the perceived fairness of the rewards received for a certain amount of effort as compared to others. The theory recognizes that individuals are concerned not only with the absolute amount of rewards they receive for their efforts, but also with the relationship of this amount to what others receive. People make judgments as to the relationship between their inputs and outcomes and the inputs and outcomes of others (Venugopalan, 2007).

Equity theory tells that individuals are motivated to reduce any perceived inequity. They strive to make the ratios of outcomes to inputs equal. When inequity exists, the person making the comparison strives to make the ratios equal by changing either the outcomes or the inputs, thereby return to a condition of equity (Venugopalan, 2007).

### Empirical Reviews

Machiadikwe *et al.* (2016), carried out a study to determine the level of Extension Agents' motivation and effectiveness in Abia State, Nigeria. Multistage Sampling procedure was adopted in the study to select a sample size of 120 Extension Agents. Data for the study were collected with the aid of a structured questionnaire. The level of motivation of Extension Agents was measured on a five point Likert rating Scale. The data collected were analyzed using descriptive statistics, namely frequencies and means. The results show that the Extension Agents were highly motivated through salary advance (mean score = 4.63) and job security (mean score = 4.26). Fairly high level of motivation was scored by regular payment of salary (mean score = 3.97), regular promotion (mean score = 3.87), reward for good performance (mean score = 3.59), job satisfaction (mean score = 3.46) and regular payment of salaries (mean score = 3.2).

Yaser and Ajeili (2022), carried out a research to determine the level of motivation of Agricultural Extension Agents towards training and career in general, and each of the following personal and functional characteristics: (age, gender, educational attainment, job title, specialization in agricultural extension, length of employment service, occupational stability, attitude towards participation in training). The study population were all workers in agricultural extension in Nineveh Governorate and a sample of 125 respondents were used for the study. After (20) respondents were taken as an exploratory sample for the purpose of measuring the reliability of the scale using the Alpha Cronbach method, where the value was (0.81%). The questionnaire was used as a means of collecting the necessary data from the respondents. T-test, Pearson correlation coefficient, and Spearman's reliability coefficient were used in data analysis. The results showed that (62.2%) of the researchers were moderately motivated towards occupational training, (20%) were highly motivated towards Occupational training, and (16.8%) of the workers had low motivation and the level of motivation towards training in general is medium.

Apantaku and Apantaku (2015). Did a study to determine the relationship between motivation - hygiene factors and job satisfaction of village extension agents of Ogun State Agricultural Development Programme (OGADEP). They measured the order of importance of specific motivation and hygiene factors and the level of job satisfaction, motivation and maintenance (hygiene factors) of the Village Extension Agents. The results showed significant relationships between motivation- hygiene factors and job satisfaction. The motivation factors ranked highest were opportunity for promotion and growth, and opportunity for more

training and development. The hygiene factors with the highest preference were attractive salary and good working conditions.

## METHODOLOGY

This study was conducted in Imo State of Nigeria. The population of the state stood at 3,927,563 persons, (males: 1,976,471 and females: 1,951,092) (NPC, 2006). The State has a land area of 5,530km<sup>2</sup> and is located between latitudes 4° 45' N and 7° 15' North of the Equator and between longitudes 6° 50' E and 7° 25' East of the Greenwich Meridian (NRCRI, 2003). Imo State is made up of twenty seven Local Government Areas (LGAs) which are subsumed into three Agricultural Zones namely: Owerri, Orlu and Okigwe. The three Agricultural Zones of the State are broken down into Blocks. Again each Block is further broken down into Circles. Owerri Agricultural Zone has 18 Blocks and 139 Circles, Orlu Agricultural Zone has 10 Blocks and 107 Circles and Okigwe Agricultural Zone has 10 Blocks and 80 Circles. In all, Imo State is made up of 38 Blocks and 326 Circles (Nnadi & Anaeto, 2013). Imo as an agrarian State is richly endowed with land suitable for growing various tropical cash crops such as oil palm, cocoa, coconut, banana/plantain and pineapple, and food crops such as cassava, yam, maize, rice, cocoyam and sweet potato. Livestock reared include goats, sheep, pig and poultry.

The population for this study comprised of all the Extension Agents in Imo State ADP. Multi-stage random sampling technique was used to select 96 Extension Agents for the study. First, two (2) Agricultural Zones, namely Owerri and Orlu were randomly selected from the three (3) Agricultural Zones in the State. Secondly, eight (8) Extension Blocks were randomly selected from each of the two (2) selected Agricultural Zones, to give sixteen (16) Extension Blocks. Lastly, six (6) Extension Circles were randomly selected from each of the sixteen (16) Extension Blocks, to give 96 Extension Circles. The Extension Agents manning each of the selected Circles were selected to serve as respondents for the study. Thus, ninety six (96) Extension Agents were sampled for the study.

Primary data were used in this study. The data were collected from Extension Agents using structured questionnaire. Data were collected on the socio-economic characteristics and level of motivation of the Extension Agents.

To examine how the EA's gender relate to the levels of their performance motivation, descriptive statistics such as frequencies, percentages and means were used in data analysis. To facilitate the realization of this objective, the Extension Agents levels of motivation were measured on a four (4) point Likert rating scale. The responses, in descending order of importance were scored 4 to 1 points as follows: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1).

In order to achieve meaningful results, the following hypothesis expressed in null form was tested:  
 $H_0: \bar{X}_M - \bar{X}_F = 0$ . That is, there is no significant difference between the mean levels of the performance motivations of the male ( $\bar{X}_M$ ) and female ( $\bar{X}_F$ ) Extension Agents.

This hypothesis was tested using z-test statistics for the difference of means. The test statistic is given by (Spiegel, 1972):

$$z = \frac{\bar{X}_M - \bar{X}_F}{\sqrt{\frac{\delta_M^2}{N_M} + \frac{\delta_F^2}{N_F}}}$$

Where; z is the z test statistics,  $\bar{X}_M$  is the mean score of the performance motivation of the male Extension Agents from their Likert Scale rating,  $\bar{X}_F$  is the mean score of the performance motivation of the female Extension Agents from their Likert Scale rating,  $N_M$  and  $N_F$  are respectively the number of male Extension Agents and female Extension Agents. The terms  $\delta_M^2$  and  $\delta_F^2$  are the variances of the mean performance motivation levels of the male and female Extension Agents, respectively. The z – test was carried out at the 5% level of significance.

To identify the age group of the Extension Agents with the highest level of performance Motivation, the Extension Agents were grouped into classes according to their ages and their average performance motivation, and the results compared. Descriptive statistics such as means, percentages and frequencies were used in data analysis. Similarly, the level of education of the Extension Agents which is most responsive to the Imo State ADP motivation incentives was determined using descriptive statistics namely means, percentages and frequencies.

Finally, the years of work experience of the Extension Agents most motivated by the performance motivation incentives of the Imo State ADP was determined by grouping the EXTENSION Agents into classes and analyzing the data collected with descriptive statistics.

## RESULTS AND DISCUSSIONS

### Gender and the Levels of Motivation of Extension Agents in Imo State.

The sampled Extension Agents were classified into males and females. Then the average scores of the male and female Extension Agents on their levels of motivation were computed and compared. The results were presented on Table 1.

**Table 1: Distribution of Sampled Extension Agents according to Gender and motivation Levels**

| s/n | Sex          | F         | %             | AV       | Bench Mark | Inference |
|-----|--------------|-----------|---------------|----------|------------|-----------|
| 1.  | Male         | 62        | 64.58         | 3.26     | 2.5        | Accept    |
| 2.  | Female       | 34        | 35.42         | 3.18     | 2.5        | Accept    |
|     | <b>Total</b> | <b>96</b> | <b>100.00</b> | <b>-</b> | <b>-</b>   | <b>-</b>  |

**Source:** Computed by the Researcher with survey data collected in 2022. Where F= Frequency and AV= Average score.

From Table1, the male and female Extension Agents had average levels of motivation of 3.26 and 3.18 respectively. Since these figures are above the bench mark value of 2.50, we conclude that both the male and female Extension Agents in Imo State were motivated to give the best of their service. Next, we tested for significant difference in the levels of motivation of male and female Extension Agents. The results of the test are presented on Table 2 and discussed.

The hypothesis tested is:  $H_0: X_M = X_F = 0$ . (I.e. there is no significant difference between the mean levels of motivation of the male and female Extension Agents in Imo State). The computed z-statistic ( $Z_C$ ), has a value of 0.73 and the theoretical or critical value ( $Z_T$ ) of the test at 5 percent level of significance is  $\pm 1.96$ . Since the computed z –statistic ( $Z_C$ ) is less than the theoretical or critical value ( $Z_T$ ), we accept the null hypothesis at 5% level. That is, we infer that the difference in motivation levels of male and female Extension Agents is not statistically significant at 5 % level. See the result of the test on Table 2.

**Table 2: Test for Difference in the Mean Levels of Motivation of Male and Female Extension Agents in Imo State (Two-tailed Z -test).**

| s/n | Item                                                     | Male Extension Agents | Female Extension Agents | Critical values/Decision rules /Inference                                                                          |
|-----|----------------------------------------------------------|-----------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.  | Mean levels of motivation                                | 3.26                  | 3.18                    | -                                                                                                                  |
| 2.  | Standard deviation                                       | 0.37                  | 0.39                    | -                                                                                                                  |
| 3.  | Sample size                                              | 34                    | 62                      | -                                                                                                                  |
| 4.  | Normality test                                           | 21.238 [0.0000]**     | 8.1302 [0.0172]*        | -                                                                                                                  |
| 5.  | Computed Z–statistic at 5% $\alpha$ -level ( $Z_C$ )     |                       | 0.73                    |                                                                                                                    |
| 6.  | Theoretical Z-statistic at 5% $\alpha$ -level ( $Z_T$ ). |                       | $\pm 1.96$              |                                                                                                                    |
| 7.  | Decision rule                                            |                       |                         | Since $Z_C < Z_T$ we accept the null hypothesis at 5% $\alpha$ -level.                                             |
| 8.  | Inference                                                |                       |                         | The difference in motivation levels of male and female Extension Agents is not significant at 5 % $\alpha$ -level. |

Source: Computed by the Researcher from Survey data, 2022. Note: \*\* means significant at 1 percent level and • means significant at 5 percent level

### Age and Levels of Motivation of the Extension Agents

Here we analyzed the ages of the Extension Agents into age groups, namely youths, middle age and old people, and determine the age group among the Extension Agents which was most motivated by the incentives. The results were presented on Table 3. The highest level of motivation was 3.27 points and was scored by the middle-aged Extension Agents. The middle-aged Extension Agents are in the prime of their career and they exploit all available opportunities to rise to the top of their career. This explains the reason why their response to the performance motivation incentives had the highest average score among the other age groups. The older Extension Agents had an average motivation level of 3.16 points, which is second in rank to the motivation level of the middle-aged group. This is probably because the older Extension Agents are preparing for retirement and may not be as effective as before, due to the effect of age on them. The youth farmers (30-39 years) had the lowest level of motivation (2.90 points). This is probably because some of the young Extension Agents are looking for better opportunities elsewhere and take the extension job as a temporary assignment.

**Table 3: The Distribution of the Extension Agents according to Age and level of Motivation.**

| S/n           | Age Bracket | F         | %          | Average Level of Motivation |
|---------------|-------------|-----------|------------|-----------------------------|
| 1. Youth Age  | 30-39       | 1         | 1.04       | 2.90                        |
| 2. Middle Age | 40-49       | 44        | 45.83      | 3.27                        |
| 3 Older Age   | 50-60       | 51        | 53.13      | 3.16                        |
| <b>Total</b>  |             | <b>96</b> | <b>100</b> |                             |

Source: Computed by the Researcher from Survey data, 2022. F = Frequency.

### Education and Levels of Motivation of the Extension Agents

The Extension Agents were classified into three groups according to their levels of education, namely holders of Ordinary National Diploma (OND), Higher National Diploma (HND) and Bachelor of Science (B.Sc.)/Bachelor of Agriculture (B. Agric.), respectively. The average level of motivation was computed for each level of education and presented on Table 4. From the table, the Extension Agents who hold B.Sc. /B.A. Agric. had the highest level of motivation of 3.30 points. This result is expected because the university graduates manage and coordinate the extension programme in Nigeria, and the Extension Agents who are university graduates are motivated by the expectation of moving up the rank and file to management level.

**Table 4: The Distribution of the Extension Agents according to their level of Education and level of Motivation.**

| S/n | Level of Education | F  | %     | Average level of Motivation |
|-----|--------------------|----|-------|-----------------------------|
| 1.  | OND                | 30 | 31.25 | 3.20                        |
| 2.  | HND                | 53 | 55.21 | 3.20                        |
| 3   | B.Sc./B.A. AGRIC.  | 13 | 13.54 | 3.30                        |

Source: Computed by the Researcher from Survey data, 2022. Note: F stands for frequency.

### Work Experience and the Level of Motivation of Extension Agents in Imo State

The Extension Agents were grouped according to their work experience, as shown on Table 5. All the groups had average level of motivation above the benchmark value of 2.50 points. This means that the Extension Agents were all motivated by the incentives provided by their employer. However, the most motivated group is the Extension Agents who had 21-30 years work experience. Their average level of motivation is 3.26 points and was ranked 1. This group has spent many years in service and is well experienced in the job. Therefore, they need little incentives to do their best on the job. This factor probably accounted for their highest level of motivation. The second position in motivation was attained by Extension Agents with 10-20 years work experience. Their average level of motivation is 3.23 points. The third position in motive was attained by two work experience groups, namely those who have worked for 1-10 and 31-35 years. The average level of motivation of each group is 3.04 points.

**Table 4.5: The Distribution of the Extension Agents according to their Work Experience and level of Motivation.**

| S/n          | Work Experience | F         | %          | Average Level of Motivation | Rank |
|--------------|-----------------|-----------|------------|-----------------------------|------|
| 1.           | 1-10            | 5         | 5.21       | 3.04                        | 3    |
| 2.           | 11-20           | 48        | 50.0       | 3.23                        | 2    |
| 3            | 21-30           | 33        | 34.38      | 3.26                        | 1    |
| <b>Total</b> |                 | <b>96</b> | <b>100</b> |                             |      |

Source: Computed using survey data, 2022. Note: F= frequency.

### CONCLUSIONS AND POLICY IMPLICATIONS

This study analyzed the levels of motivation of the Agricultural Extension Agents in Imo State, with respect to their socioeconomic characteristics. The population for the study comprised of all the Extension Agents in the three Agricultural Zones in Imo State. Through multistage random sampling technique, a total of 96 Extension Agents were selected for the study. Structured questionnaire was used in data collection. Descriptive statistics were used in data analysis.

The major conclusion of the study was that both the male and female Extension Agents in Imo State were equally motivated in their job performance by the incentives they received from the government. Other conclusions were that the middle-aged {(40-49) years} Extension Agents were the most motivated age bracket, the Extension Agents who held B.Sc./B.A. Agric. had the highest level of performance motivation among all qualifications and the Extension Agents who had 21-30 years work experience were most motivated compared with other years of working experience. The above conclusions have the following policy implications: The Government should continue to give the male and female Extension Agents the same performance motivation incentives without preference to either sex. This is because our findings show that the two sexes were equally motivated. The motivation incentives should be graduated to favour more, the middle-aged {(40-49) years} Extension Agents. This recommendation is tenable because it was found that the middle-aged {(40-49) years} Extension Agents had on average, 3.27 points on motivation level, and were the most motivated age group among all the age brackets. When employing Extension Agents, preference should be given to persons who hold B.Sc./B.A. Agric. Extension, compared With Extension Agents who hold other qualifications, namely OND and HND. This is because holders of B.Sc./B.A. Agric. Extension had the highest level of performance motivation of 3.30 points, compared with Extension Agents who hold other qualifications, namely OND and HND. Performance motivation incentives should be graduated to favour more, the Extension Agents who have 21-30 years work experience. Their average level of motivation is 3.26 points, and is the highest among all years of work experience.

### REFERENCES

- Adegebo, S. A. (1993). *Concept of unification of extension under the training and visit (T and V) system farmers Hope*. Abi- annual Magazine of Oyo ADP: 1-35.
- Ajayi, M.T (2001). A comparison of the effectiveness of on-campus and off campus training courses for Agricultural Institute of Tropical Agriculture (IITA). *Journal Extension Education*. 8 (3), 41-47.
- Apantaku, S. O., & F. S. Apantaku (2015). Herzberg motivation - hygiene factors and job satisfaction of village extension agents of Ogun state agricultural development programme. *Journal of Agricultural Extension*, 2.
- Ali, A., Mohammad, A. & Ebraheem, A. (2012). Effectiveness of agricultural extension activities. *American Journal of Agricultural and Biological Sciences*, 7 (2), 194-200.
- Anaeto F.C., Asiabaka C.C., Nnadi F.N, Ajaero J.O, Aja O.O, Ugwoke F.O, Ukpongson, M. U. & Onweagba, A.E. (2012). The role of extension officers and extension services in the development of agriculture in Nigeria. *Journal of Agricultural Research*, 1(6): 180 – 185.
- Bader. A. A., Edgar Y. & Hazem. S.K. (2021). Extension agents' perceptions of the role of extension services in organic agriculture: A case study from Saudi Arabia. *Sustainability*, 13: 1-15.
- Gutu, T. (2016). Economics of work motivation: empirical study of agricultural extension workers in Western Ethiopia. *Asian Journal of Agricultural Extension, Economics & Sociology*, 8(4): 1-10,
- Jeet R., Ataharul, C. & Wayne G. (2020). Agricultural extension agents' use of Learning-based extension methods in Trinidad and Tobago. *Journal of Learning for Development*, 7(2):142-160.
- Jeet, R., Wayne, G. & Ataharul, C. (2017). Value of modern extension methods in improving image and quality of extension: Perception of extension agents in Trinidad and Tobago. *Journal of Agricultural Extension and Rural Development*, 9(8): 155-162.

- Listiana, I., Efendi, I., Mutolib, A. D. & Rahmat, A. (2019). The behaviour of extension agents in utilizing information and technology to improve the performance of extension agents in Lampung Province. *Journal of Physics: Conference Series*, 15: 1- 7.
- Machiadikwe, N., Benjamin, A. & Nwogu, N.V. (2016). Level of extension agents motivation and effectiveness in Abia State, Nigeria. *International Journal of Scientific and Technology Research*, 5 (4), 212 – 215.
- National Root Crop Research Institute (NRCRI), (2003). *Annual Report*, Umudike, Umuahia.
- Nigerian Population Commission (NPC) (2006), Census Report, Abuja.
- Onuoha, B.C. (1991). *Fundamentals of business and management in Nigeria*. Unique Printing and Packaging Co.LTD. Aba, Nigeria.
- Venugopalan, O (2007). *Maslow's theory of motivation its relevance and application among non managerial employees of selected public and private sector undertakings in Kerala*. PhD Thesis. Department of Commerce and Management Studies, University of Calicut.
- Yaser M. A. and S. A. Ajeili (2022). Motivations of agricultural extension workers towards occupational training in Nineveh Governorate. *Provincial Journal*, 21 (1).