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Research Article

Leadership Effectiveness of Zonal Extension Officers by Extension Agents in Kwara State Agricultural Development Programme, Nigeria

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Abstract
In the structure of the Kwara Agricultural Development Programme, the position of Zonal Extension Officers (ZEO) is vital and central to the execution of the extension programmes which are implemented through the frontline Extension Agents. The study examined the leadership effectiveness of the Zonal Extension Officers (ZEOs) in Kwara State Agricultural Development Programme, factors that hindered the leadership effectiveness of ZEOs and the demographic characteristics of ZEOs and Extension Agents (EAs) in Kwara State Agricultural Development Programme. One hundred and thirty (130) EAs and four (4) ZEOs were purposively selected for the study. Primary data were collected with a structured questionnaire and analysed with descriptive statistics while the hypotheses were tested with Pearson Product Moment Correlation and Chi-Square Statistics. Results of the study revealed that 94.6% of the EAs and all four ZEOs acquired tertiary education. The EAs and the ZEOs had an average of 8.01 and 5 years of field experience respectively. Furthermore, 59.2%, 58.5% and 50% of ZEOs were effective only in clarifying the organization's goals, ineffective in staff motivation and communication respectively. There was a significant relationship between level of education (χ^2 = 47.53, p=<0.05), years of experience (r=0.27, p=<0.05) of EAs and perceived leadership effectiveness of ZEOs. Based on the empirical evidence, the ZEOs need to improve their job performances. Extension personnel should acquire tertiary education with cognate field experience before they could function as ZEOs for optimum effectiveness.

Keywords: *Field experience, Ineffective communication, Leadership effectiveness, Motivation, Organizational goals*

Introduction

Many agricultural programs have been implemented over time to ameliorate the extreme poverty of rural dwellers, especially farmers in sub-Saharan Africa (SSA). Some of the programs are not limited to the United Nations Development Program (UNDP), the International Fund for Agricultural Development (IFAD), the Agricultural Development Programs (ADP), the Food and Agricultural Organization (FAO), the National Economic Empowerment and Development (NEED), and The Directorate of Food, Roads, and Infrastructure (Omonijo *et al*., 2014). Agricultural Development Programmes (ADPs) is an offshoot of the concept of integrated agricultural and rural development which arise from the need for the application of knowledge and skills in all the relevant areas of agriculture. The ADP is the implementation organ of the state ministry of agriculture and natural resources that adopts the integrated rural development strategy in its operations. ADPs are semi-autonomous and focus on small-scale farmers primarily for the provision of infrastructural rural facilities, conducting of trainings on improved agricultural technologies and supply of farm inputs through efficient extension services. (Daneji, 2011).

In the structure of ADPs, the zonal extension officer (ZEO) is an essential personnel that can

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conveniently be described as a 'Manager in the middle' in business organizations. Middle managers, often described as the 'backbone' of the company, minimize the gap in understanding the organizational objectives and act as a bridge between top management and the working group of employees (Johansson and Svensson, 2017). The ZEO in the organizational structure of ADP is both a technical and administrative leader. The position is vital and central to the execution of the extension programmes of ADP, which are implemented through the frontline Extension Agents (EAs). The EAs are responsible for transferring useful information necessary for "change" to the farmers such as linking farmers with research and sources of farm inputs, as well as counselling the farmers on how to make wise decisions in farm management (Omotesho *et al*., 2012 and Bonye *et al*., 2012).

In the structure of the Kwara Agricultural Development Programme (Kwara ADP), the roles of ZEOs include field supervision of all the frontline extension personnel, monitoring and evaluation of the EAs to ensure appropriate delivery of technical messages to farmers, ensuring that the EAs judiciously follow research recommendations in the establishment of demonstrations which include Small Plot Adoption Technique (SPAT), check truancy on the part of extension agents and organize Farmers' Field Days among others (Adesiji *et al*., 2015). As a leader, it is incumbent of the ZEOs to assist the EAs to overcome difficulties, clarify the goals of the organization and motivate the subordinates in the performance of assigned activities as reported by Ogunbameru (2011). Leadership is said to be an act that causes others to respond in a shared direction. In agricultural extension, leadership has a critical strategic importance since it deals with developing farmers in the community. A leader is the one who can inspire, persuade, influence and motivate useful changes. Leaders have to motivate their followers to work harder, bringing about change. The leadership role of extension workers has become an increasingly critical element in the successful performance of extension programmes (Khan, 2017). Agricultural extension services have been criticized over the years as ineffective (Nnadi *et al.*, 2012 and Agbarevo, 2013). It is the quality of leadership that can accelerate the pace of success of extension programmes.

Though different studies have been carried out on the effectiveness of EAs in Agricultural development by different authors (Omotesho *et al.*, 2012; Adesiji *et al*., 2015; Jamagani, 2015 and Antwi-Agyei and Stringer, 2021) but adequate information has not been provided on the leadership effectiveness of ZEOs especially when direct link exists between ZEO and EAs. This study was thus conceived against this background and examined the perceived effectiveness of zonal extension officers by extension agents in Kwara ADP.

The objectives of the study were to describe the demographic characteristics of zonal and extension officers, examine the perceived leadership effectiveness of ZEO's by EA's and identify the factors limiting the leadership effectiveness of ZEOs

Materials and Methods

The study was carried out in Kwara State, Nigeria. The state is one of the 36 states of the Federal Republic of Nigeria that was created in 1967. It falls within Latitude 45^{o}N and 9^{o}N and longitudes 2^{o} 30' E and 6^{o} 25' E of Greenwich Meridian (Longitude 0). The state has a land area of 32,500 square kilometres (that is 5,250,000 hectares) with a population of about 2.3million people. The State has 16 local government areas (LGAs). Kwara State Agricultural Development Programme divided the state into four administrative zones in consonance with the agro-ecological and farming systems. The zones in alphabetical arrangement and constituent local government areas (LGAs) include: Zone A (Baruteen and Kaiama LGAs); Zone B, (Edu and Patigi LGAs); Zone C (Asa, Moro, Ilorin West, East and South LGAs) and Zone D, (Ifelodun, Offa, Oke- Ero, Oyun, Irepodun, Ekiti, and Isin LGAs).

Kwara State was purposively chosen for the study because it is one of the oldest states in the country where the World Bank supported the operation of the Agricultural Development

Project in Nigeria in 1988. The target population for the study comprised all the EAs and ZEOs in the four administrative zones of Kwara ADP. Thus, all the 20, 43, 37 and 30 EAs in Zones A, B, C and D respectively and all the existing 4 ZEOs were purposively selected. The primary data were elicited with the use of a structured questionnaire. Descriptive statistics such as frequency counts and percentages were employed to analyze the demographic characteristics of the respondents while Pearson Product Moment Correlation (PPMC) Statistics and Chi-Square test were employed to test the hypotheses of the study.

Variables that were used to measure the leadership effectiveness of ZEOs were measured on a 3-point Likert-scale, the respondents were asked to indicate their level of agreement with the factors that determine the leadership effectiveness of the ZEOs as perceived by the extension agents. The 3-point Likert-scale was anchored as follows: not effective (1), slightly effective (2) and very effective (3). A mean of 2 was derived and scaled to make decision as follows: mean < 2.0 = not effective; 2.0 = slightly effective; > 2.0 = very effective.

In addition, five variables were used to measure factors limiting the leadership effectiveness of ZEOs on a five point Likert scale which include strongly disagree (1) disagree (2), moderately disagree (3), agree (4) and strongly agree (5). The calculated mean score was used to rank the factors which provided a guide for proffering solutions to the constraints.

Hypotheses of the study

Hypothesis 1: There is no significant relationship between the level of educational attainment of extension agents and the perceived leadership effectiveness of Zonal Extension Officers.

Hypothesis 2: There is no significant relationship between the years of field experience of the extension agents and perceived leadership effectiveness of the Zonal Extension Officers in Kwara ADP.

The study assessed how the subordinates of the ZEOs perceive their leadership effectiveness and how responsive they are to the aspirations of the EAs. Identifying ways in which leadership exerts influence on subordinates can have a considerable impact on the extension's organizational planning; decision-making and design of additional professional development efforts to assist the ZEOs to maximize their leadership effectiveness.

Results and Discussion

Demographic characteristics of the extension agents in Kwara ADP

The results of the study as presented in Table 1 showed that more than half (67.7%) of the Extension Agents (EAs) were between 36 and 51 years of age, with an average age of 40.12 years. Similarly, half (50%) of the ZEOs were in the age bracket of 36 and 51years with an average age of 42 years. Both the EAs and the ZEOs were relatively young, and supposed to be energetic and vibrant to carry out extension services delivery to farmers. This submission is in line with the findings of Olorunfemi *et al*. (2020) who also revealed the mean age of extension agents to be 40.2 years. This implies that most of the respondents are in their active age and are expected to be productive and duly perform their responsibility as extension officers. The majority (70%) of the EAs were male. With this proportion, the coverage of female farmers for extension services may be hindered with less opportunity to be aware of innovations that can enhance their farming practice. This corroborates with the findings of Subair *et al.* (2020) which revealed higher proportion of extension agents in Kwara State to be male. The predominance of married extension agents suggests that the EAs may be more responsible, responsive, committed and dedicated to their jobs and serve the interest of their employers. It is plausible that farmers in the neighbourhood of the extension agents can access new ideas through members of the households of the EAs. The fact that only 29.9% of the EAs had BSc is very worrisome knowing that educational qualification is an important tool that enhances innovativeness and basic understanding of concepts as posited by Munna and Kalam (2021). Although 100% of the ZEOs had BSc, this is expected to reflect positively on

their leadership effectiveness Furthermore, the EAs and the ZEOs had an average of 8.01 and 5 years of cognate field experience respectively. This coincides with the result of Olorunfemi *et al.* (2018) which agrees that EAs had less than 10 years of experience.

Leadership effectiveness of ZEOs by extension agents

Table 2 summarized the perceived effectiveness of the ZEOs by extension agents in the implementation of key extension activities of Kwara ADP. The result revealed that the ZEOs were effective in descending order of importance in monitoring subordinates (2.52), assisting the EAs in the preparation of the visit schedule (2.45), clarifying the goals of Kwara ADP (2.42), and facilitating Fortnightly Training (FNT), (2.28), evaluating subordinates (2.26) and establishing demonstration plots and trials (1.73). The FNT and demonstration are vital activities that determine the success of extension organizations like Kwara ADP. The weakness of the ZEOs in these aspects may be attributed to the years of experience in the organization. Demonstration in particular is the most reliable extension method for the introduction of innovations to small-scale and poorly educated farmers for awareness creation and continuous use of the innovations. The ZEOs who are relatively young on the job cannot confidently initiate demonstrations and correct the mistakes of the EAs whenever they carry out technology demonstrations to farmers. This could be attributed to inadequate experience of the ZEO on the field as ascertained by Olorunfemi *et al*. (2021) that more experienced extension officers tend to have more exposure and practical knowledge of field work. Therefore, it is of paramount importance that officers that occupy this position should acquire both the minimum educational qualification and cognate years of experience stipulated for the position.

Factors limiting the leadership effectiveness of Zonal extension officers

The Figure 1 shows the factors reported by the EAs as limiting the leadership effectiveness of the ZEOs. These include the inability to celebrate team success (3.95), inadequate years of cognate field experience (3.88), poor communication skills (3.76), inability to treat members equally (3.28) and inability to help others to self-actualize their goals (3.11). This implies that having a first degree educational qualification does not translate to good leadership ability. It will therefore be difficult under this circumstance for the ZEOs to provide a lead and directions for the EAs who may want to self-actualize in the organization.

This overtly showed that the ZEOs needed to improve in verbal influence and interpersonal relationship with subordinates as extension officers are expected to establish good communication skills with subordinates to ensure efficient and effective discharge of extension services (Akintonde *et al*., 2021).

Result of test of association between level of education and perceived leadership effectiveness of ZEO

Table 3 summarized the result of the Chi-Square Statistical analysis for establishing the relationship between the level of education and perceived leadership effectiveness of Zonal Extension Officers. The result revealed that there is a significant relationship between the level of education of extension agents and the perceived leadership effectiveness of ZEO (χ^2=48.53, $p<0.05$). It was, therefore, concluded that the level of education of extension agents had a corresponding influence on how they perceived the leadership effectiveness of the ZEOs. EAs with higher educational qualifications are likely to perceive leadership effectiveness positively because that might influence their level of understanding and assimilation (Omotesho *et al*., 2012).

The relationship between years of experience and perceived leadership effectiveness of ZEO

Table 4 summarized the result of Person Product Moment Correlation statistics for establishing the relationship between years of experience on the job by the EAs and the perceived leadership effectiveness of ZEO. The result revealed that there was a linear and significant relationship between years of experience on the job by the EAs and the perceived leadership effectiveness of

ZEOs with ($r = 0.180$; $p < 0.05$). This implies that the years of experience of the EAs on the job had a corresponding influence on how they perceived the leadership effectiveness of the ZEOs. Thus the older the extension agents were on the job the more competent would they be to assess the leadership effectiveness of the ZEOs and the more the reliability of the perception and lessons learnt. This corroborates the findings of Olorunfemi *et al*. (2021) which revealed that EAs that are more experienced in extension work will have more exposure and practical knowledge of field work.

Conclusion and Recommendations

It was concluded that the majority of the extension agents were males, married, and acquired formal education. The ZEOs were effective in assisting extension agents in the preparation of the visit schedule, monitoring of subordinates, evaluation of subordinates but need to improve in motivating their subordinates, especially in the regular payment of field allowance. Poor communication skill of the ZEOs was a factor limiting their leadership effectiveness. Training of extension officers, especially the ZEOs is recommended for the Agricultural Development Programme in Kwara State to increase their confidence and interpersonal relationship with their sub-ordinates.

It was recommended that minimum cognate years of field experience above the average of the extension agents should be stated as conditions to be met by extension personnel who are aspiring to be employed as ZEOs in the structure of the Kwara Agricultural Development Programme. This is also relevant to other states' ADPs in Nigeria. The ZEOs should be programmed to attend seminars and trainings on personnel management and administration to improve staff motivation skills.

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Table 1: Demographic characteristics of Extension Agents and Zonal Extension Officers in Kwara ADP

Variables	**Extension Agents**		**ZEO**		**Mean**
Age (years)	Frequency	Percentages	Frequency	Percentages	
20 -35	35	26.9	1	25	
36- 51	88	67.7	2	50	
52 and above	7	5.4	1	25	
Mean	**40.12**		**42**		
Sex					
Male	91	70	3	75	
Female	39	30	1	25	
Marital Status					
Single	16	12.3	-	-	
Married	81	63.3	4	100	
Widowed	16	12.3	-	-	
Divorced	8	6.2	-	-	
Separated	9	6.9	-	-	
Education attained					
Secondary School	7	5.4	-	-	
OND/HND	78	60.0	-	-	
B.SC	38	29.2	4	100	
M.SC	7	5.4	-	-	
Years of experience					
1 – 10	96	73.9	4	100	8.07
11- 20	28	21.5	-	-	
21- 30	6	4.6	-	-	

Table 2: Perceived leadership effectiveness of ZEO by extension agents

Variables	**NE**		**SE**		**VE**		**Mean**	**Ranking**
	Freq	**%**	**Freq**	**%**	**Freq**	**%**	**scores**	
Assisting extension agents in the preparation of visit schedule	6	4.6	60	46.2	64	49.2	2.45	2
Clarifying the goals of the Kwara ADP	9	6.9	44	33.8	77	9.2	2.42	3
Monitoring of subordinates	5	3.8	66	50.8	59	5.4	2.52	1
Evaluating of subordinates	14	10.8	68	52.3	48	36.9	2.26	5
Facilitating fortnightly training for his extension agents	10	7.7	74	56.9	46	35.4	2.28	4
Establishment of Demonstration Plots (On Farm Adaptive Research (OFAR), Small Plot Adoption Technique (SPAT)	51	39.2	63	48.5	16	12.3	1.73	6

Freq* frequency and % percentage; VE = Very effective, SE = slightly effective, NE = Not effective

Table 3: Test of association between level of education and perceived leadership effectiveness of ZEO

Variable	χ^2	df	Asymp.sig. (2-sided)	Decision
Pearson Chi-square	48.535	26	0.005	Significant
Linear-by-linear association	7.225	1	0.007	Significant
Number of valid cases	130			

Table 4: Correlation test on relationship between years of experience and perceived leadership effectiveness of ZEO

Variable	r-value	p-value remark	decision
Age	0.180*	0.040	Significant
Number of valid Cases	130		

Figure 1: The distribution of respondents showing the factors limiting the leadership effectiveness of Zonal Extension Officers