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Full Length Research Paper

Selection Criteria for Contact Farmers and the Job Performance Ratings of the Extension Workers of Nasarawa Agricultural Development Programme in Nasarawa State, Nigeria

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This study examined the selection criteria of contact farmers and the job performance ratings of the extension workers of the Nasarawa Agricultural Development Programme (NADP). Extension workers were asked to express their opinion on the prescribed selection criteria by the NADP in relation to the selection of contact farmers and their job performance in the study area. Multi-stage stratified random sampling was adopted for the selection of extension workers. There are six cells within the three zones of the study area. Each cell contains two sub-cells. Eight extension workers were randomly selected from two sub-cells to give a total of 96 extension workers as respondents for the study. Frequencies and percentages were used for the analysis of selection of the extension workers and the views expressed by extension workers on the relevance of selection criteria for the selection of contact farmers. Chi-square (X^2) analysis was used to determine the association between the opinion of extension workers and their job performance. The results of the study showed the selection criterion of the contact farmers being practising farmers was ranked 1st as a relevant selection criterion for the selection of contact farmers; followed by "readiness to disseminate new technologies"; "acceptability to communities"; and "willingness to allow other farmers visit their farms for mass adoption" all of which were ranked 2nd. Chi-square analysis showed significant and positive association between selection criteria prescribed and the job performance of the extension workers. The study recommends that management of NADP should ensure continuous training of extension workers and quip them significantly enough to provide relevant technical support to both contact and non-contact farmers respectively.

Key words: extension workers, contact farmers, selection criteria, job performance, and Nasarawa Agricultural Development Programme.

INTRODUCTION

The principal purpose of the Training and Visit system of extension was to have competent, well informed village – level extension workers (VLW) that would visit farmers frequently and regularly with relevant messages and brought back farmers problems' to researchers (Benor and

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Baxter, 1984). In Nigeria, the nation-wide adoption of the T & V extension system introduced through the World Bank financial support was perhaps the most outstanding development in agricultural extension over the past two decades. The T & V system was believed to be capable of overcoming the inherent weaknesses of the past agricultural extension approaches practical in the country and was to improve the effectiveness of extension delivery to farmers. The overall objective of the T &V system was to build professional extension service that was capable of assisting farmers to raise production, increase their incomes, level of living and provide appropriate support for agricultural development (NAERLS, 1997).

Among the features of the T & V extension programme was a two-way flow of communication through the use of contact farmers to ensure that extension managers were based on appropriate solutions to farmers' production problems; through relevant proven adaptable innovations (Ugbabe, 2006). In this case, the role perception of contact farmers was to complement the efforts of extension workers in the performance of the functions of the extension workers as disseminators of agricultural information to non-contact farmers. This paper therefore, assessed the relevance of the selection criteria prescribed by the NADP for its contact farmers based on the extension workers' field experience and to establish the relationship between contact farmers selected using the selection criteria and the job performance of the extension workers as disseminators of agricultural information to other farmers. The study further aimed at assessing the overall factors influencing the performance of field extension workers.

The specific objectives of the study were to:

1. describe some of the socio-economic characteristics of the extension workers
2. assess the opinion of the extension workers on the relevance of the prescribed selection criteria by NADP for the selection of contact farmers
3. determine the relationship between selection criteria used in the selection of contact farmers and the job performance of extension workers.

METHODOLOGY

Nasarawa Agricultural Development Programme (NADP) used to conduct this study was part of the then Plateau Sate Agricultural Development Programme. NADP was among the early Agricultural Development Projects (ADPs) identified for the pilot testing and implementation of the Training and Visit (T & V) system of extension through the financial assistance of the World Bank in 1976. The State has a land area of 12,000 km^2 excised from the defunct Plateau State (MOI, 2003). Nasarawa State has a population of 1,863,276 persons (NPC, 2006) with an estimated 180,433 farm families (NADP, 2000). The State shared boundaries with the Federal Capital Territory of Abuja to the North-West, Plateau and Kaduna States to the North-East and Taraba State to the East-South, Benue State to the South and Kwara State to the South-West. The major occupation of the people of Nasarawa State was farming. The vegetation of the state has been largely modified by farming activities in the North-West areas. Most of the southern area is characterized by Guinea Savanna type and pre-dominantly derived Savanna. The state is endowed with abundant water resources with an estimated water surface area of over 5,645 hecters (MCI, 2001). The major crops grown in the study area are beniseed, cassava, yam, rice, maize, melon seed, mango and oranges even though the farming system of the state has been generally identified as crop-based, livestock, fisheries and agro-forest are, also, practised.

Criteria for the selection of contact farmers by NADP

The selection criteria used by NADP for the selection of contact farmers were:

a. Contact farmers should be members of cooperatives societies.
b. Contact farmers should be willing to disseminate new technology acquired from the Village Extension Agents (VEA) to other farmers.
c. Contact farmers must be practising farmers.
d. Contact farmers must be acceptable to farming community of the area.
e. Contact farmers must be willing to conduct Small Plot Adoption Techniques (SPATs).
f. Contact farmers must be willing to allow other farmers visit their farms for the purpose of mass adoption of new techniques.
g. Contact farmers must be willing to attend farmers' meetings regularly (NADP, 2008).

Data Sampling

Structural interview schedule was used for the collection of data. NADP had three agricultural zones namely Southern, Central and Western zones with headquarters at Obi, Akwanga and Keffi respectively (Table 1). Each zone operated on the basis of area system for administrative purpose. Based on the zonal set up of the NADP, an area comprised of five local government councils. Each area had two (2) cells. Each cell had two (2) sub-cells. The three zones of the NADP comprise a total of three areas, six cells, and twelve sub-cells. From the twelve (12) sub-cells, eight extension workers were randomly selected to give a total of 96 extension workers as respondents for the study.

Table 1. Distribution of Contact, Non-Contact Farmers and Extension Workers According To Sub-Cell.

Zone	Area	Block	Cell	Sub-cell	Contact Farmers	Non-Contact Farmers	Extension Workers
Southern (Obi)		Doma	Lafia	Wakwa	2	4	6	16
			Lafia		2	4	6	16
Central (Akwanga)	Akwanga	Nass/ Eggon	Mada Station		2	4	6	16
Western (Keffi)	Karu	Karu	Kara		2	4	6	16
			Asopada		2	4	6	16

Source: Field Survey, 2011

Data Analysis

Data collected were analysed using descriptive statistics such as percentage for the selection of extension workers and the opinion expressed by extension workers on the relevance of the selection criteria prescribed by NADP for the selection of contact farmers. Chi-square (X^2) analysis was used to determine the association between the criteria for the selection of contact farmers and the job performance of the extension workers in the study area.

RESULTS AND DISCUSSIONS

Socio-economic characteristics of extension workers

About 93.3% of the extension workers were married (Table 2). Marriage was generally accepted as a symbol of maturity and status of responsibility in the study area. Average age of extension workers was 45 years, suggesting that extension workers were able-bodied. Age of the extension workers depicted symbol of experience, acquisition of skills and better performance. Implication of this was an enhanced effectiveness of extension workers by way of making them more confident in solving farmers' problems in the study area. About 52.8% and 33.3% of the extension workers were holders of the Higher National Diploma and Bachelor of Science degree certificates. This inferred less inhibition working with farmers by the extension workers in the NADP. The results of the study further showed that 68.7% of the extension workers admitted having one wife, 11.0% had 2 wives while 20.3% agreed to having 3 – 4 wives. Also 68.3% and 31.7% of the respondents claimed to have 1 – 4 and 7 – 9 children respectively. According to Obeta and Nwagbo (1991), a household with many productive members possibly contribute to the extra-labour requirements of the new technology. Rahudkar, (1962) found that married Village Level Workers (VLWs) were more successful than unmarried ones. He, therefore, suggested that in order to ensure the success of rural community development, it was necessary that personnel for the post of VLW should be selected on the basis of desirable personality traits and aptitudes.

Extension Workers' Opinion on the Selection Criteria for the Selection of Contact Farmers

Opinion of extension workers on selection criteria of contact farmers are represented on (Table 3). Being practising farmer was ranked 1st as relevant criterion for the selection of contact farmers by 97.22% of the respondents. This was followed by contact farmers' readiness to disseminate new technologies found acceptable to farming community and the contact farmers willingness to allow other farmers visit their farms were ranked 2nd by 94.44% of the extension workers. The 1st ranking of contact farmers being practising farmers inferred that the contact farmers selected represented the farmers that were skilled, not absentee landlords, not people with a major occupation in addition to farming but those that have imitable farming practices. The findings agreed with Benor and Baxter (1984) who advised that contact farmers should be practicing skilled farmers.

Table 2. Some Socio-Economic Characteristics of Extension Workers in the NADP (n = 96)

Characteristics	Percentage of Extension Workers
Age	
20 – 29	11.1
30 – 39	27.8
40 – 49	44.4
50 – 59	16.7
Sub-total (a)	**100.0**
Educational Level	
WASC/GCE/SSCE	13.9
ND/HND	52.8
B.Sc. degree	33.3
Sub-total (b)	**100.0**
Marital Status	
Single	3.72
Married	93.20
Divorced	3.08
Sub-total (c)	**100.0**
Number of wife/wives	
One wife	68.70
2 wives	11.0
3 – 4 wives	20.30
Sub-total (d)	**100.0**
Number of Children	
1 – 4	68.70
7 – 9	31.7
Sub-total (e)	**100.0**

Source: Field Survey, 2011

The 2nd ranking criterion for the selection of contact farmers was probably designed to complement the variable of contact farmers being practising farmers. It is that contact farmers selected should be willing and be able to explain to other farmers what they did under recommended practices, assisted other farmers adopt new farm practices and showed that they represented proportionately major socio-economic and agricultural productions of their farming group. Such proposition was in effect in consonance with the work of Benor and Baxter (1984) who suggested that contact farmers should promote practices they tried and found successful. They further advised that contact farmers should represent proportionately the main socio-economic and farming conditions of the farming group and should be fully recognized by other farmers.

The use of Small Plot Adoption Techniques (SPATs) in demonstrating improved farm practices was a distinct innovation in the implementation of the T & V extension system in Nigeria (NAERLS, 1997). Introduction of SPATs was expected to serve as means of quantifying the achievements of the extension workers and ultimately the performance of the NADP. However, the finding of the study ranked this variable 4th by 55.6% of the extension workers as relevant criterion for the selection of contact farmers probably because SPATs were designed to serve not only as farmers' mini-demonstrations, as teaching tools for accelerating adoption of new techniques on farming but to, also, serve as teaching tools for which contact farmers were expected to establish in the fields, if they were to perform their roles adequately. Sreensunpagit (1984), for

Table 3. Opinion of Extension Workers on Selection Criteria in the NADP (n = 96)

Selection Criteria	Percentage of Extension Workers		
	Relevant	Not so Relevant	Not Relevant
Membership of Farmers' Cooperative	19.40 (5)	66.67	13.98
Readiness to Disseminate New Technologies	94.44 (2)	5.56	0.00
Being Practising Farmers	97.22 (1)	2.78	0.00
Acceptability to Farming Communities	94.44 (2)	5.56	0.00
Conducting Small Plot Adoption Techniques (SPATs)	55.60 (4)	36.11	5.5
Willingness to Allow other Farmers Visit their Farms	94.44 (2)	5.56	0.00
Regular Attendance of Farmers' Meetings	91.69 (3)	8.33	0.00

Source: Field Survey, 2011 Value in parenthesis are ranking orders

instance, found in his work that the pattern by which farmers obtained information from contact farmers was a combination of several methods, demonstration being the dominant one.

Selection Criteria of Selecting Contact Farmers and Job performance

Chi-square (X^2) test value (Table 4) revealed significant positive association between the selection of contact farmers and the extension workers' job performance using the prescribed selection criteria at P = 0.05. The tabulated value of $X^2_{0.95}$ = 21.03 was found to be less than the calculated value of $X^2_{0.95}$ = 123.73. The positive association demonstrated the extent of enhanced effectiveness between the criteria used in the selection of the contact farmers and the job performance of the extension workers in the T & V system of extension in the NADP.

The finding further showed that criteria of readiness to dissemination of innovation, acceptability to farming community, willingness to allow other farmers visit their farms and attendance of farmers' meetings were all significantly positive in association with the job performance of the extension workers at P = 0.05 and were, therefore, ranked 2nd each by 94.44% of the respondents. This positive association inferred that contact farmers selected using the prescribed selection criteria would concentrate on those aspects of farmers' production which would offer them (the farmers) maximum scope of enhancing yields through simple techniques of crop husbandry disseminated by the extension workers. The positive association of the selection criteria used in selecting contact farmers with the extension workers' job performance would further enable the contact farmers play their roles as multiplicators of information to other farmers. This is in agreement with Blanckenburg (1982) who opined that contact farmers played their roles as multiplicators of information to assists the extension workers by their distinguishing characteristics in spreading extension messages in the second step (of communication process) to other farmers in matters related to extension organization.

Table 4. Chi-Square Analysis of the Relationship Between Selection Criteria of Contact Farmers and the Opinion of Extension Workers on the Job Performance (n = 96)

Selection Criteria	Observed Frequency	Expected Frequency	Calculated Value (X^2)	Tabulated Value (X^2)
Membership of Farmers' Cooperative	7	28.71	123.73	21.03
Readiness to Disseminate New Technologies	34	27.92		
Being Practising Farmers	35	28.71		
Acceptability to Farming Communities	34	28.7		
Conducting Small Plot Adoption Techniques (SPATs)	20	27.12		
Willingness to Allow other Farmers Visit their Farms	34	27.12		
Regular Attendance of Farmers' Meetings	33	28.71		

Source: Field Survey, 2011
df = 12
X^2 Significant at P = 0.05

The variable of conducting SPATs as criterion for the selection of contact farmers recorded low ranking (4^{th}) by the extension workers probably because T & V extension "demonstration" (SPATs) were organized, financed and conducted by either government department or an educational institution. This was not in consonance with the work of Benor and Baxter (1984) who reported that every adoption of a recommendation by a farmer was in effect demonstration and should be promoted by extension workers. According to them, the resulting numerous small "local demonstrations" were more effective than large-scale, externally organized and financed ones.

The variable of membership of farmers' cooperative among the criteria of the selection of contact farmers was ranked 5^{th} by the extension workers for contribution to their job performance at P = 0.05 probably because members of cooperative society could display personality traits, that would weaken their colleagues' commitment to group goals (Anyim and Odii, 1991). Another reason might be of members due to ignorance and apathy of cooperative group causing them not to attend meetings regularly. By so doing they would fail to exercise their right of control over the leadership. This would give the opportunity for those leaders who were unpatriotic to exploit the society for their personal interest (Iwuagwu, 1991). And would help contribute to job performance of the extension workers minimally.

Being practising farmers as criterion for the selection of contact farmers attracted highest ranking (1^{st}) by the respondents probably because contact farmers should be farmers that were fully engaged in farming activities most of their times. They should be representative of the range of socio-economic and the agricultural productions of their group. Contact farmers selected should be farmers with whom other farmers would respect, identify and be imitated as multiplicators of extension messages. According to Benor and Baxter (1984) contact farmers should be practising skilled farmers. They further reported that contact farmers should not be absentee landlords and people with major occupations in addition to farming, although extension workers should pay attention to them.

CONCLUSIONS AND RECOMMENDATIONS

The results of the study revealed that extension workers of the study areas were of middle age and mostly holders of HND/B.Sc. degree certificates. There was significant positive association between the criteria used for the selection of contact farmers and their job performance.

This study was recommending that management of the NADP should strictly supervise the application of the prescribed selection criteria by the extension workers for the selection of contact farmers to enhance performance. Only practicing farmers, contact farmers willing to disseminate information on new technologies and those who were acceptable by their farming communities should be selected as contact farmers. Vigorous pursuance of training of the extension workers as priority for upgrading and updating their professional skills to provide optimum technical support to both contact and non-contact farmers be made by the management of NADP.

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