

Influence of Personal Characteristics on Job Performance Among Extension Agents and Agricultural Researchers in South Western Nigeria

O. I. Oladele

*Department of Agricultural Extension and Rural Development,
University of Ibadan, Nigeria. oladele20002001@yahoo.com*

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Resumé

Oladele, O. I. *L'influence des Caractéristiques Personnelles sur la Performance du Travail Parmi Les Vulgarisateurs et les Chercheurs Agricoles dans le Sud-ouest du Nigéria.* Ce papier a examiné l'influence des caractéristiques personnelles des vulgarisateurs et des chercheurs sur leur performance du travail. Les résultats indiquent que les vulgarisateurs avaient un moyen de 36.5 ans et la majorité sont des sexes masculins, mariés et possèdent le certificat national du diplôme supérieure. Ils ont également passé entre 21 et 30 ans en service. Parmi toutes les activités de relation, les vulgarisateurs fréquemment entament le problème conjugué de l'identification et de l'évaluation des réportages. Dans le cas des chercheurs, on a remarqué que l'âge moyen était 37.4 ans et 71.5% étaient des sexes masculins et mariés. 45% d'eux possèdent le minimum des maîtrises. Il n'y a que 23% d'entre eux qui apprennent toujours pour les licences supérieures alors que 32% ont passé entre 21 et 30 ans en service. Les chercheurs s'occupent normalement du problème conjugué d'identification (73.8%) avec les vulgarisateurs et des réunions d'évaluation (67%). Les résultats des analyses chi-carrées indiquent que le niveau pédagogique ($\chi^2 = 23.72$ df, $p < 0.05$) a un effet sur la performance parmi les chercheurs alors que dans le cas des chercheurs, sexe ($\chi^2 = 7.94$ df, $p < 0.05$) situation familiale ($\chi^2 = 16$ df, $p < 0.05$) le niveau pédagogique ($\chi^2 = 27.86$ df, $p < 0.05$) et période du travail ($\chi^2 = 25.52$ df, $p < 0.05$) sont considérablement liés à la performance du travail. Le papier conclut que les caractéristiques personnelles exercent beaucoup d'influences sur la performance du travail des vulgarisateurs et des chercheurs.

Mots clés: Caractéristiques personnelles, la performance du travail, les vulgarisateurs, les chercheurs, le sud-ouest du nigéria.

Abstract

This paper examined the influence of personal characteristics of extension agents and researchers on their job performance. The results indicate that extension agents had a mean of 36.5 years with majority being male and married as well as having HND certificates. They have also spent between 21 and 30 years in service. Of all the linkage activities, extension agents frequently carried out joint problem identification and evaluation reports. Findings with respect to researchers showed a mean age of 37.4 years and 71.5 per cent were male and married. About 45 per cent had Masters Degree and above. Only 23 per cent are currently

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studying for higher degrees while 32 per cent had spent between 21 and 30 years in office. Researchers are mostly involved in joint problem identification (73.8 per cent) with extension agent and evaluation meetings (67 per cent). The result of the Chi-Square analysis shows that educational level ($\chi^2 = 25$ df₁₀, $p < 0.05$) and job tenure ($\chi^2 = 23.72$ df₆, $p < 0.05$) affect job performance among researchers while for extension agents gender ($\chi^2 = 7.94$ df₂, $p < 0.05$), marital status ($\chi^2 = 16$ df₆, $p < 0.05$), educational level ($\chi^2 = 27.86$ df₁₀, $p < 0.05$) and job tenure ($\chi^2 = 25.52$ df₆, $p < 0.05$) are related to the job performance. The paper concludes that personal characteristics exert a lot of influence on the job performance of extension agents and researchers.

Keywords: Personal characteristics, job performance, extension agents, researchers, south western Nigeria.

Introduction

Nigeria is an agrarian country; the production of foods and other raw materials is a necessary ingredient for the take-off of all other sectors. Agriculture itself has to be modernized to achieve the much-needed increase in the productivity of the sector. Alternative frameworks that are concerned with the supply and demand of agricultural innovation in developing countries as applicable in Nigeria are discussed below. The Transfer of Technology (ToT) model stated that the generation and diffusion of innovation is a linear process from rich-country research institutes to poor-country research stations and sees the farmer as a passive recipient of new technology. Failure of adoption is attributed mainly to psychological factors such as irrationality, conservatism and traditionalism (Ellis, 1992). The Adaptive Technology Transfer (ATT) model recognized the location-specific requirement of technology and farmer behaviour and focused on the adaptation

of new technology to local conditions and to remove the socio-economic constraints to adoption by farmers, such as the availability of complementary inputs of credit (Chambers and Jiggings, 1987). Farming Systems Research (FSR) placed emphasis on the generation and diffusion of new technology by discovering farmers' goals and constraints.

The Farmer-First Research (FFR) envisages the supply and demand for innovations as a circular process beginning and ending with farmer, rather than a linear process beginning with scientists and ending with farmers (Chambers *et al.*, 1989). The multiple sources of innovation model (Biggs, 1985; Biggs and Clay, 1981) proposes that ideas and genetic resources for new technology spring from multiple sources, not just from a narrow sequence of basic and applied research carried out by scientists within the formal research system. Chambers and Ghildyal (1985) proposed the Farmer-First-and-Last

(FFL) model, which states that for technologies to better satisfy the needs and conditions of resource-poor farmers there should be a systematic process of scientist learning from and understanding of their resources, needs and problems. The Beyond Farmer-First (BFF) model highlights personal characteristics such as gender, ethnicity, class, age and religion having important implications for research and extension practice (Scoones and Thompson, 1994).

Mook (1988) reported that the most valuable resource of an agricultural research organization is its people; yet many research managers pay minimal attention to their human resources. Marcotte and Stave (1988) posited that human resources are the basic determinants of the rate of development of science, technology and social institutions. It is human resources that provide the knowledge and expertise for scientific development. This recognition dictates that one of the most important functions of a national agricultural scientific research system is the development, retention and continued motivation of a body of scientific professionals. It is therefore, of crucial importance that the scientist be understood in order to understand the scientific enterprise. This understanding will facilitate decision making on staff recruitment, selection, training, performance, motivation and utilization of human scientific resources.

Studies on the job satisfaction of agents revealed that job performance is determined by the level of satisfaction of the agents (Oladele, 1995, Ehien, Oladele and Ogunfeditimi, 2004). Also, job related problems and organisational settings determine their performance. In the same vein, effectiveness of the agents and researchers were found to be dependent on the job satisfaction and their attitude to work. Atala *et al.* (1993), Asiabiaka (1991) and Alao (1977) showed that performance of extension agents is affected by age, educational level and attitude. ISNAR (1988) found that researchers' age, educational status and job satisfaction determine their job performance. Employees work harder and perform better if motivated and satisfied with their jobs (Beder, 1990). Motivation - the psychological process that gives purpose, direction, and intensity to behaviour - is the most important determinant of effective job performance and is mainly responsible for differential work output (Watanabe, 1991). Staff motivation changes as time and conditions change. Motivation depends on incentives that the staff value and believe to be attainable with increased individual performance, and is high when staff frustration is minimal (George and Jones, 1999).

Statement of problem

There is need to improve the performance of the researchers, extension agents who work with farmers to ensure the unique responsibilities and

constraints of farmers are not neglected, leading to efficient use of resources at their disposal. The search for alternative arrangements of agricultural extension management in Nigeria has been informed by the perceived magnitude of performance problems of researchers and extension agents. Patel (1983) noted that a way to enhance the performance of researchers and extension agents is based on more incentive given to them. Strong relationship has been observed between employee dissatisfaction; withdraw behaviour, turnover and absenteeism (Ehien *et al.*, 2004). If researchers and extension agents are dissatisfied and discontented they will lack commitment to their jobs and agricultural production will be low. Job satisfaction is viewed as so important by researchers and managers because it has potential to affect a wide range of behaviours in organizations and to contribute to workers level of well being.

Mwangi and McCaslin (1995) identified in decreasing order of importance, eight factors found to be important for agents' job satisfaction which are evaluation, dependable supervisors, work incentives, pay, praise and work location, housing and transportation, job security and administration and supervision. Mwangi and McCaslin recommended that extension managers could do a better job of improving agents' morale and job satisfaction by giving less consideration to personal characteristics and more attention to the

job satisfaction factors identified in the study.

Androulidakis *et al.* (1995) noted that in Greece, work locations and working conditions affect extension agents' job satisfaction. Scott *et al.* (2005) reported that significant relationship exist between job satisfaction and gender. Nestor and Leary (2000) found no relationship between gender and job satisfaction. Riggs and Beus (1993) found that as the number of areas of responsibility increased for female agents, job satisfaction increased as well. Also female agents who had fewer areas of responsibility and fewer children living at home were more satisfied.

The importance of job performance in organization has been recognized for better utilization of human resources. There is no single factor operating for job performance, rather the factors include characteristics such as work itself, pay, promotion opportunities, age, sex, education, length of employment, satisfaction, marital status, health, family relationship and relative social status. The performance problem is complicated by the ephemeral of one's job satisfaction. With the need of researchers and extension agents to work with farmers the following questions arise: what factors affect their job performance? How do their personal characteristics affect job performance?

The general objective of this study is to

examine the influence of personal characteristics on job performance among extension agents and researchers in south western Nigeria. The specific objectives are to: Ascertain the services provided by extension agents and researchers, and identify the influence of their personal characteristics on their job performance. Relationships between some demographic characteristics (age, gender, marital status, educational level and job tenure) and job performance of researchers, extension agents were examined.

Methodology

The study area which consists of eight states namely, Delta, Edo, Lagos, Ogun, Osun, Ondo, Ekiti and Oyo has a distribution of agricultural research institutions namely: Institute of Agricultural Research Training, Ibadan (IAR & T), National Institute for Horticultural Research, Ibadan (NIHORT), Cocoa Research Institute of Nigeria, Ibadan (CRIN), Rubber Research Institute of Nigeria, Benin (RRIN), Forestry Research Institute of Nigeria, Ibadan (FRIN). Others are Nigerian Institute for Oil Palm Research, Benin (NIFOR), National Institute for Oceanography and Marine Research, Lagos (NIOMR). Nigerian Stored Products Research Institute, Ibadan (NSPRI), Federal Institute of Industrial Research, Lagos (FIIRO), National Agricultural Research and Liaison Services, Ibadan (NAERLS), National Cereal Research Institute, Ibadan (NCRI), Agricultural

Development Programme (ADP).

The target population of this study consisted of researchers in agricultural research institutes, extension personnel in extension agencies. Researchers' population is distributed within the seven randomly selected research institutes; they are IAR & T, NIHORT, CRIN, NIFOR, NCRI, RRIN and FRIN. From these seven research institutes, there are 176 researchers. The study area has seven states, each with an ADP and a zonal office of NAERLS. These extension agencies have a total 1,150 personnel (NARP, 1995). Simple random sampling technique was used to select 88 researchers and 115 extension agents.

A structured questionnaire with a reliability coefficient of 0.67 using a split half technique was employed in obtaining information from the target sample which is made up of two areas namely demographic characteristics, and services provided (job performance). The variables of the study were operationalized as job activities, where respondents indicated from a list of 23 linkage functions and types of mechanism that were regularly used in their institute. Personal characteristics of researchers and extension agents examined include age, marital status, and educational level, area of specialization, job tenure and gender. Data collected were subjected to frequency counts, percentages and Chi-Square analysis.

Results and Discussion

Personal characteristics of extension agents

Table 1 shows that 69.6 per cent of the extension agents are males. A reason for this may be the fact that more males than females graduate from agricultural institutions. This agrees with the findings of Olawoye (1990) that there are more male extension agents than females. The mean age of these extension agents was 36.5 years with majority in the 31 to 40 years age bracket. This agrees with the findings of Asiabiaka (1991), Atala *et al.* (1993) and Oladele (1995) who found that majority of extension agents are between the age bracket of 31 and 40 in their different studies. It would then mean a lot to get them motivated, as people in this age category are always full of aspirations and high ambitions. However, 44 per cent of them had been on the job between 16 and 20 years. The high percentage might have been accounted for by the positive skewness brought in by the few seconded from MANR.

About 78 per cent of the agents were married indicating that a high level of responsibility would be expected from them, but they may have role conflicting with domestic affairs. Forty-four per cent of the extension agents were HND holders; only 27 per cent had BSc and MSc degrees. The HND suggests that the pre-service training of the agents would have included practical exposures to agricultural extension services nevertheless; this educational

Table 1. Demographic characteristics of extension agents.

<i>Variables</i>	<i>Frequency</i>	<i>Percentage</i>
Gender		
Male	80	69.6
Female	35	30.4
Total	115	100
Age (years)		
<30	25	21.7
31-40	37	32.2
41-50	33	28.7
51-60	20	17.4
Total	115	100
Marital status		
Single	24	20.9
Married	90	78.2
Divorced	1	0.8
Total	115	100
Educational level		
OND	32	27.8
HND	51	44.3
BSc	21	18.3
MSc	11	9.6
Total	115	100
Studying for higher degrees		
Yes	40	34.8
No	60	52.2
No response	15	13.0
Total	115	100
Job tenure		
<10 years	15	13
11-15 years	20	17.3
16-20 years	51	44.3
>20 years	29	25.2
Total	115	100
BSc	21	18.3
MSc	11	9.6
Total	115	100
Studying for higher degrees		
Yes	40	34.8

Table 1. cont'd.

No	60	52.2
No response	15	13.0
Total	115	100
Job tenure		
< 10 years	15	13
11-15 years	20	17.3
16-20 years	51	44.3
> 20 years	29	25.2
Total	115	100

level would need frequent in-service training to update their knowledge and skills for effective performance.

It agrees with the findings of, Oladele (1995), Atala *et al.* (1993) and Alao (1977) which stated those extension agents' performances were dependent on their level of education. Many of the agents were not currently studying for higher degrees (52 per cent) which may be due to the lack of organisational procedure for workers to advance their training. The 13 per cent non response may be a face-saving method.

Demographic characteristics of Researchers

The findings of the demographic characteristics of researchers are recorded in Table 2. It showed that 71.5 per cent were males, suggesting that males offer more agricultural courses/training than women do. This agrees with the results of human resources management study in national agricultural research by ISNAR in 1988

that there are more male researchers in the National Agricultural Research System in developing countries. Thirty-six percent were between 31 and 40 years with a mean age of 37.6 years. Also 71.6 percent were married while 27.4 percent were single.

Fifty-two per cent were BSc and MSc degree holders with only 15 per cent having MPhil and PhD. Low educational level among researchers was reported by NARP, (1995) and ISNAR, (1988). The research ability and analytical skills may be low and thus a low performance; however, 23.8 per cent are currently studying for higher degrees. Sixty per cent had spent at least 16 years in service, suggesting that necessary experience on the job would have been developed and could be passed down to younger scientist as they learn on the job. Long year of service may however account for conservative practices in administrative procedures by older scientists.

Job activities of extension agents

As indicated in Table 3, of all the twenty-four linkage activities of the extension agents only three was very prominent in practice. These are joint problem identification (87.8 per cent), joint priority setting and planning (75.6 per cent) and evaluation reports (80 percent). These activities occur at the inception and terminal stages of research and are often included in annual reports. It then implies that for agents' activities to take off in a season,

Table 2. Demographic characteristics of researchers.

<i>Variables</i>	<i>Frequency</i>	<i>Percentage</i>
Gender		
Male	63	71.6
Female	25	28.4
Total	88	100
Age		
<30	10	11.4
31-40	35	39.8
41-50	29	32.9
51-60	14	15.9
Total	88	100
Marital status		
Single	24	27.3
Married	63	71.6
Divorced	1	1.1
Total	88	100
Educational level		
OND	9	10.2
HND	18	20.4
BSc	21	23.9
MSc	25	28.4
MPhil	7	7.9
PhD	8	9.1
Total	88	100
Studying for higher degrees		
Yes	36	40.9
No	49	55.6
No response	3	3.4
Total	88	100
Job tenure		
<10 years	10	11.3
11-15 years	21	23.9
16-20 years	29	33.0
>20 years	28	31.8
Total	88	100

they have to carry out problem identification and set priorities.

Joint demonstration trials (43.5 per cent) and joint field days (45.2 per cent) were marginally indicated as frequent linkage activities between researchers and extension agents. They are used less frequently and their impact would have been limited, often because of implementation problems. Joint use of facilities (33.9 per cent) and joint financial resources (34.8 per cent) were not popular as linkage activities. This suggests a competitive rather than cooperative relationship between the linkage components. Limited resources can be efficiently used where comprehensive and cooperating links have been established (ISNAR, 1988).

Similarly, Table 3 covers twenty-three linkage activities in seven research institutes. Joint problem identification (73.8 per cent) and evaluation meetings (67.1 per cent) have been widely used and have been moderately successful in strengthening the links. Researchers found it difficult to use joint priority setting and planning (34.1 per cent), joint demonstration (29.5 per cent) and joint financial resources (25 per cent). Differences in the organisational settings of these institutes agree with the results of study by ISNAR in nine countries. (Merill-Sands, 1986).

Table 4 shows the relationships between linkage services and the demographic characteristics of researchers and

Table 3. Job activities of extension agents and researchers.

<i>Linkage types and functions</i>	<i>Extension agents** (n = 115)</i>		<i>Researchers** (n = 88)</i>	
	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
Joint problem identification	101 (87.8)•	12 (10.4)	65 (73.8)	13 (14.7)
Joint priority setting and planning	87 (75.6)	23 (20)	30 (34)	20 (22.7)
Joint programming	68 (59.1)	24 (20.8)	44 (50)	12 (13.6)
Joint technology publication	69 (60)	39 (33.9)	46 (52.2)	12 (13.6)
Collaborative professional activities	68 (59.1)	31 (26.9)	48 (54.5)	6 (6.8)
Joint research contracts	57 (49.5)	26 (22.6)	53 (60.2)	26 (29.5)
Joint research activities	76 (66)	37 (32.1)	45 (51.1)	30 (34)
Exchange of resources	73 (63.4)	36 (31.3)	40 (45.4)	26 (29.5)
Joint use of facilities	39 (33.9)	60 (52.1)	30 (34)	21 (23.8)
Joint financial resources	40 (34.7)	70 (60.8)	22 (25)	28 (31.8)
Staff rotation	44 (38.2)	48 (41.7)	40 (45.4)	38 (43.1)
Dissemination of knowledge	77 (66.9)	32 (27.8)	56 (63.6)	31 (35.2)
Joint publication	69 (60)	39 (33.9)	52 (59)	34 (38.6)
Joint reports	56 (48.7)	37 (32.1)	45 (51.1)	31 (35.2)
Joint demonstration trials	50 (43.4)	42 (36.5)	26 (29.5)	22 (25)
Joint field days	52 (45.2)	39 (33.9)	43 (48.8)	18 (20.4)
Joint audio-visual materials	73 (63.4)	38 (33)	46 (52.2)	28 (31.8)
Joint seminar and workshop	78 (67.8)	35 (30.4)	49 (55.6)	29 (32.9)
Cross training	75 (65.2)	35 (30.4)	42 (47.7)	20 (22.7)
Evaluation survey	65 (56.5)	26 (22.6)	55 (62.5)	28 (31.8)
Evaluation meeting	80 (59.5)	22 (19.1)	59 (67)	28 (31.8)
Evaluation field visits	85 (73.9)	22 (19.1)	56 (63.6)	31 (35.2)
Evaluation reports	92 (80)	18 (15.6)	57 (64.7)	30 (34)

• Percentages in parenthesis.

•• All rows do not add up to *n* sizes respectively, due to non response.

extension agents. The gender, age and marital status of researchers were not significantly related to their linkage services - a hint that none of these characteristics posed a limiting effect on their linkage activities. Linkage services can be carried out by either of the gender and whether old, young; married or not the linkage message and activities are the same. Rather, the educational level and job tenure would

affect linkage services. The educational level would determine the exposure and the skills possessed to carry out these activities. Also, job tenure would have offered varied experiences, which would be necessary for researchers to adapt, adjust and align situations as they occur on the field.

Extension agents, on the other hand had gender, marital status, educational level

and job tenure significantly related to their linkage services; gender significance may be due to the preference for agents sex by farmers and socio-cultural reasons restricting human interaction in the study area. Extension work will mostly take agents out of town to the farmers leading to role conflict with respect to secular and domestic responsibilities as majority were married. Educational background of the agent could be used to explain their skill,

involvement in linkage activities. Agents' job tenure would enable them to easily identify farmers' problem, understand and find solutions to them.

Conclusion

The paper has clearly shown that the personal characteristics of workers exert a lot of influence on their job performance. As such management must consider these characteristics to elicit effective performance from the extension agents and researchers. The use of in-service training is recommended to alleviate the effect of these personal characteristics.

Table 4. Chi-square analysis of relationships between demographic characteristics and linkage services.

<i>Variables</i>	χ^2 -values	<i>Df</i>	<i>Decision</i>
<i>Researchers</i>			
Gender	4.26	2	NS
Age	12.77	8	NS
Marital status	2.80	6	NS
Educational level	25.00	10	S
Job tenure	23.72	6	
<i>Extension agents</i>			
Gender	7.94	2	S
Age	13.42	8	NS
Marital status	16.00	6	S
Educational level	27.86	10	S
Job tenure	25.52	6	S

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