



Assessment of Job Behavior of Agricultural Extension Workers: A Case Study of SAFE Programme Beneficiaries in North-Western Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. Author SH designed the study, managed the literature searches, wrote the protocol and wrote the first draft of the manuscript. Authors SU, OO and AG finalized the design, protocol and checked the draft report. All authors read and approved the final manuscript.

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ABSTRACT

The study assessed job behavior of SAFE programme beneficiaries in North-Western Nigeria. A multi-stage sampling technique was adopted in selecting 73 SAFE beneficiaries' employers (sample sizes). Primary data was collected using a structured questionnaire and all the administered questionnaires were returned and found useful for the study. Data collected were analyzed using descriptive statistics (mean and standard deviation) and inferential statistics (paired sample t-test). The study reveals that SAFE beneficiaries' have rated high in job behavior indicators as a result of SAFE programme (such as desired for new knowledge, explicitness, foresightedness, sympathetic attitude, service attitude, attractive personality, enthusiasm and honesty). The study further confirmed significant differences on job behavioral change of SAFE beneficiaries' before and after

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SAFE participation using paired sample t-test. The study concludes that SAFE programme had positively influenced job behavioral change of the agricultural extension workers. In line with this finding, the study recommends that the SAFE programme curriculabe adopted into the conventional or traditional agricultural degree programme across the Nigerian Universities.

Keywords: Job behavior; extension workers; SAFE programme; North-west; Nigeria.

1. INTRODUCTION

Agricultural extension remains the prime mover of agricultural development. Extension agents represent a core labor force in the activities and programme of agricultural extension. However, the effectiveness of extension services is highly dependent on the preparedness and professional competencies of extension agents [1,2,3]. The effectiveness of an extension organization is determined by the ability of extension workers to design, deliver, and evaluate effective educational programmes, because they are directly serving the needs of the people. Their ability to perform extension tasks is a function of the job competencies and behavior. Future extension professionals need to be more skillful and futuristic to serve the needs of diverse clientele. Extension workers must learn new knowledge, skills and adequate behavior, since it is only knowledgeable and skillful individual who can play a vital role in the success of an organization in today's technological environment [4].

According to J. P. Leagans [5] and C. Jitendra [6], behavior refers to what an individual knows (knowledge), what he can do (skills-mental and physical), what he thinks (attitudes) and what he actually does (action). Behavior is, therefore, a function of the person in interaction with the situation. The factors motivating behavior either in the person or situation are: (i) An environmental determinant; (ii) The internal urge, wish, feeling, emotion, drive, instinct, need, want, desire, demand, purpose, interest, aspiration or motive which gives rise to the action; and (iii) The incentive or goal, which attracts or repels an organism.

Behaviors are actions and mannerisms carried out by organisms or systems (e.g., people, communities, and social groups) in relation to their environment. Humans evaluate the acceptability of behavior using social norms and regulate behavior by means of social control. Most recent approaches in psychology tend to conceptualize behavior in a less mechanistic way, representing it as "a person's pattern of actions finalized to reach an aim" [7,6].

According to C. Jitendra [6] extension worker is like a teacher, philosopher, leader, guide and colleague for the community and on the basis of his special qualities he is able to carry on developmental programme successfully. It is undoubtedly true to say that the success and failure of development programmes depend upon the qualities of extension worker. By extension worker we mean a man who is the last chain of extension organization, who while living in the midst of the community, propagates his programmes through the following qualities: 1) Sound knowledge of subject 2) Burning desire for new knowledge 3) Explicitness 4) Tactful 5) Foresightedness 6) Sympathetic attitude 7) Service attitude 8) Attractive personality 9) Faith in programme 10) Enthusiasm 11) Courage 12) Tolerance 13) Honesty 14) Simple living 15) Friendly nature 16) Firm determination 17) Religious outlook 18) Organizing capacity 19) Dignity of labour 20) Knowledge of rural social values.

The Federal Government of Nigeria has been making concerted efforts along with other national and international non-governmental organizations (NGOs) to improve agricultural production and productivity of the nation's citizens. In order to achieve this national goal, various intervention initiatives and projects have been implemented at different periods by successive regimes. Most of such projects and programmes came with various packages of agricultural innovations and approaches. The only strategy targeted at direct skills upgrade of extension personnel is the Sasakawa Africa Fund for Extension Education (SAFE) programme which was initiated by the Sasakawa Africa Association (SAA) and a Winrock International Foundation. The SAFE programme began operating in Africa in 1993 and extended its programme to Nigeria in 2002 [8,9].

The aim of SAFE is to upgrade the skills of mid-career agricultural extension workers in Africa. Its imperatives are to i) involve agricultural colleges and universities in the rural development process, and ii) strengthen the competencies of extension workers in order to serve small farmers

and meet their needs. To achieve these imperatives, Supervised Enterprise Projects (SEPs) have been a central practical training component of the SAFE programme. In SEPs, mid-career extension workers develop and implement projects with farmers under the supervision of Faculty lecturers from the university, as well as the mid-career extension worker's employers [10].

According to B. E. Swanson [11], high value should be placed on core competencies and behavior in an organization, primarily referring to their knowledge and expertise in their fields. It is important for societies to have qualified extension workers who are capable of delivering scientific knowledge to their clients and then help the clients solve problems [12,13].

Globally, studies in agricultural extension a case of SAFE contexts are few. For example, [14] conducted a research on the assessment of SAFE training programme in Mali: Graduates' perception of the training's impact as well as opportunities and constraints related to Supervised enterprise projects (SEPs). Tunji and Johnson [15] carried out an assessment of the SAFE programme in Ghana. Deola [10] study's focused on the improving Smallholder Farming and Extension in Nigeria: the SAFE Strategy.

In addition Ja'afar-Furo et al. [16] focused on the training needs assessment of mid-career agricultural extension officers: Evidences from SAFE intervention in North-East, Nigeria. Suleiman [17], work on the performance of SEPs conduct by SAFE students. [18], work on innovative Training Programme for Mid-Career Agricultural Extension Staff: The SAFE programme. In addition Belay and Ferdu [19] assessed the SAFE training programme a case study of Haramaya University, Ethiopia. Samuel and Thomas [20] assessed the SAFE programme regarding the perceived job competence of Mid-career extension staff that completed the SAFE initiated B. Sc. Agricultural extension degree at University of Cape Coast, Ghana. Festus and Ismail [21] conducted a study on the SAFE programmes in Ghana. Kabutha [22] examined the impact of Women graduates of the BSc Training Agricultural Extension Programme for Mid-career Professionals at Haramaya University, Ethiopia.

Despite all these studies, there appears to be near absence of studies that focused directly on the job behavior of SAFE programme

beneficiaries in North-Western Nigeria. This results to dearth of information on the link between educational training and trainees' subsequent behavioral change in the workplace. It is against this backdrop that this study hopes to assess job behavior of SAFE beneficiaries in North-Western Nigeria for better extension services and agricultural development.

1.1 Objectives of the Study

The general objective of this study is to assess the job behavior of SAFE programme beneficiaries in agricultural extension services in North-Western Nigeria. The specific objectives of the study are to:

- i. Identify the levels of job behavior of the SAFE beneficiaries before participation in the programme in the study area.
- ii. Identify the levels of job behavior of the SAFE beneficiaries after participation in the programme in the study area.
- iii. Compare the levels of job behavior of the SAFE programme beneficiaries before and after programme participation in the study area.

2. METHODOLOGY

The study was carried out in North-Western Nigeria. The population of the study consist all the SAFE programme beneficiaries' employers in the study area. A multi-stage sampling technique was adopted in selecting 73 sample sizes. Despite the fact that there are four (4) SAFE programme participating Universities in the study area, three (3) SAFE programme participating Universities were purposively selected namely; Ahmadu Bello University, Zaria (ABU), Bayero University, Kano (BUK) and Usmanu Danfodiyo University, Sokoto (UDUS). The choice of these Universities was premised on the fact that they are the Universities that have graduated SAFE beneficiaries for a period of 2005 - 2019. At the second stage, respondents were purposively selected. At the third stage, proportionate to size sampling method was used to select sample size (respondents). Finally, a simple random sampling was used to select the target respondents of the study.

Primary data was collected using structured questionnaire; all the questionnaires administered were returned and found useful for the study. Data collected were analyzed using

descriptive statistics (mean and standard deviation) and inferential statistics (paired sample t-test). **Decision Rule:** The perceived mean ratings from the five-point Likert scale were trichotomized such that any computed average means score value above \bar{x} (3.0) + standard deviation (SD) was regarded as high behavior levels; equal to \bar{x} 3.0 + SD was moderate behavior levels. While, any mean score value of less than (<) 3.0 was regarded as low behavior level respectively.

Specifically, objective 1 and 2 were achieved using descriptive statistics (mean and standard deviation), while objective 3 was achieved using inferential statistics (paired sample t-test).

2.1 Measurement of Variables

These involve the definition of the variables so that they can be measured or expressed quantitatively as below:

1. **Level of behaviors:** The levels of behavior were provided using a 5 –point Likert scale under each behavior identify. Respondents were requested to indicate their perceived level of behavior of the SAFE beneficiaries before and after the programme such as Very High (VH) = 5, High (H) = 4, Moderate (M) = 3, Low (L) = 2 and Very low (VL) = 1.

3. RESULTS AND DISCUSSION

3.1 SAFE Beneficiaries’ Job Behavior Before and After the Programme Participation

Tables 1 and 2 presented the distribution of SAFE beneficiary job behavior before and after the programme participation. The result delineate that SAFE beneficiaries before programme participation had moderate job behavior on sympathetic attitude, tolerance, honesty and friendly nature with other remaining 11 job behaviors were rated low among the 15 behavior indicators identified in this study. This implies that extension workers in the study area have less adequate job behaviors before participation on SAFE programme.

The result further reveals that the SAFE beneficiaries’ job behaviors after programme participation were found to have had high behavior in all the behaviors identified in the study. Based on this study the behaviors identified to be the most highly behaviors are; attractive personality (\bar{x} = 4.76), followed by honesty (\bar{x} = 4.74) and faith in the programme, courageous and organizing capacity each has a mean of 4.68 respectively few to mentioned. This study implies that there was a behavioral change

Table 1. Employers’ perception on SAFE beneficiary Levels of job behavior before participation

Job Behavior	VH	HA	A	SL	NA	Mean	SD	Decision
Desire for new Knowledge	-	-	16	78	6	2.10	0.463	Low behavior
Explicitness	-	-	32	68	-	2.32	0.471	Low behavior
Foresightedness	-	-	24	70	6	2.18	0.523	Low behavior
Sympathetic attitude	-	56	24	20	-	3.28	0.684	Moderate
Service attitude	-	16	14	64	6	2.40	0.833	Low behavior
Attractive personality	-	8	28	58	6	2.38	0.725	Low behavior
Faith in programme	-	8	32	60	-	2.48	0.646	Low behavior
Enthusiasm	-	8	38	48	6	2.48	0.735	Low behavior
Courageousness	-	8	42	44	6	2.52	0.735	Low behavior
Tolerance	-	26	68	6	-	3.01	0.535	Moderate
Honesty	-	46	42	12	-	3.45	0.886	Moderate
Friendly nature	-	60	8	32	-	3.18	0.607	Moderate
Firm determination	-	8	64	28	-	2.80	0.571	Low behavior
Organizing capacity	-	8	66	26	-	2.82	0.560	Low behavior
Dignity of labour	-	-	80	20	-	2.80	0.404	Low behavior

Source: Field survey (2019)

NB: SD – Standard deviation; VH –Very High; H–Highly; M– Moderate; L– Low; VL–Very Low. Likert scores are in percentages. (Decision; results were trichotomized as: above 3.00 + SD = High; 3.00 + SD = Moderate; Less than 3.00 = Low Behavior)

Table 2. Employers' perception on SAFE beneficiary Levels of job behavior after participation

Job Behavior	VH	HA	A	SL	NA	Mean	SD	Decision
Desire for new Knowledge	14	86	-	-	-	4.14	0.351	High
Explicitness	26	74	-	-	-	4.26	.443	High
Foresightedness	28	72	-	-	-	4.28	0.454	High
Sympathetic attitude	48	52	-	-	-	4.48	0.505	High
Service attitude	52	48	-	-	-	4.52	0.505	High
Attractive personality	76	24	-	-	-	4.76	0.431	High
Faith in programme	68	32	-	-	-	4.68	0.471	High
Enthusiasm	74	18	8	-	-	4.66	0.626	High
Courageousness	68	32	-	-	-	4.68	0.471	High
Tolerance	50	50	-	-	-	4.50	0.505	High
Honesty	74	26	-	-	-	4.74	0.443	High
Friendly nature	54	46	-	-	-	4.54	0.503	High
Firm determination	62	38	-	-	-	4.62	0.490	High
Organizing capacity	68	32	-	-	-	4.68	0.471	High
Dignity of labour	62	38	-	-	-	4.62	0.490	High

Source: Field survey (2019)

NB: SD – Standard deviation; VH –Very High; H–Highly; M– Moderate; L– Low; VL–Very Low. Likert scores are in percentages. (Decision; results were trichotomized as: above 3.00 + SD = High; 3.00 + SD = Moderate; Less than 3.00 = Low Behavior)

Table 3. Paired t-test on the perceived job behavior mean differences before and after SAFE participation

Job Behavior	Mean difference	Std. deviation	Std. error mean	t-value	Df	P-value
Desire for New Knowledge	-2.082	.571	.067	-31.135	72	.000
Explicitness	-2.027	.726	.085	-23.861	72	.000
Foresightedness	-2.137	.805	.094	-22.688	72	.000
Sympathetic attitude	-2.288	.935	.109	-20.902	72	.000
Service attitude	-2.164	.707	.083	-26.142	72	.000
Attractive Personality	-2.425	.881	.103	-23.525	72	.000
Faith in Programme	-2.219	.750	.088	-25.283	72	.000
Enthusiasm	-2.247	.954	.112	-20.115	72	.000
Courageousness	-2.151	.811	.095	-22.661	72	.000
Tolerance	-1.671	.883	.103	-16.175	72	.000
Honesty	-2.068	.855	.100	-20.666	72	.000
Friendly nature	-1.877	.897	.105	-17.882	72	.000
Firm determination	-1.808	.758	.089	-20.395	72	.000
Organizing capacity	-1.877	.725	.085	-22.103	72	.000
Dignity of labour	-1.808	.659	.077	-23.426	72	.000

Significant at $p \leq 0.05$

as a result of training interventions from the SAFE programme. Also, this study is in conformity with the views of Jitendra [6] that it is undoubtedly true to say that the success or failure of agricultural development programme depends upon the good quality or attributes of extension worker. Therefore, this was achieved as a result of training interventions from the SAFE, partners with universities for mid-carrier extension workers hence; this could meet the agricultural extension challenges.

3.2 Perceived Job Behavior Mean Differences Before and After SAFE Participation

Consequently, the perceived means ratings generated (Tables 1 and 2) from the descriptive statistics were further advanced to inferential statistics to determine the differences between the two groups of job behavior of SAFE beneficiaries (before and after programme participation) as presented in Table 3. The result

reveals that there was significant differences between the two groups mean ratings across to all the job behaviors identified at $p \leq 0.05$. This indicates that SAFE programme intervention has significantly influenced job behavior of agricultural extension workers to meet current demands for effective extension services delivery.

4. CONCLUSION AND RECOMMENDATION

The study concludes that the SAFE programme has improved the job behaviors of agricultural extension workers in the study area and significantly gained impact on the agricultural extension service delivery.

The study recommends that the SAFE programme curriculum should be adopted into the conventional or traditional agricultural degree programme for wider job behavior development and sustainability.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Jasmin A, Asmuni A, Ismail A. Roles of extension agents towards agricultural practice in Malaysia. *International Journal on Advanced Science, Engineering & Information Technology*. 2013;3(1):59-63.
2. Okoedo O, Edobo E. Identification of communication needs of extension agents in Ondo State, Nigeria. *Journal of Agriculture and Veterinary Science*. 2013; 4(1):1-6.
3. Hoffmann V. Governmental extension services, their generic problems & potential solutions. *International Conference proceedings*. Nairobi, Kenya. 2014;15-18.
4. SeEVERS B, GRAHAM D, CONKLIN N. *Education through cooperative extension (2nd Ed.)*. Columbus, Ohio: Ohio State University; 2007.
5. Leagans JP. Extension programme building. In: *Extension education in community development*. New Delhi: Ministry of Food and Agriculture; 1961.
6. Jitendra C. *Communication and Extension Management*. Anjali Prakashan. 2007; 8(1):1-2.
7. Prochaska JO. How do people change, and how can we change to help more people? In Hubble MA, Duncan BL, & Miller SD. *The heart and soul of change: What works in therapy*. Washington, DC: American Psychological Association. 1999; 227-255.
8. Donye A, Ja'afar-Furo M, Obinne C. Improving smallholders farmers and extension in Nigeria: The Sasakawa Africa Fund for Extension Education Strategy. *Agriculture & Biology Journal of North America*. 2013;21(51):75-85.
9. Sasakawa Africa fund for Extension Education (SAFE). *Feeding the Future. Newsletters Sasakawa Africa Association, Nigeria*; 2015.
10. Deola N. Thematic 4 Sasakawa Africa Fund for Extension Education (SAFE). *Annual Report, Newsletters*; 2012.
11. Swanson BE. *Global review of good Agricultural extension & advisory service practices*. Rome. Italy: Food and Agricultural Organization (FAO); 2008.
12. Mutimba J, Mangheni M, Matsiko F. The shift from public to private contract Agricultural Extension System: Educational implications of policy reforms in Uganda. In M. Mangheni (Ed.), *experiences, innovations and issues in agricultural extension in Uganda: Lesson and prospects*. (pp. 87-104). Kampala, Uganda: Fountain Publishers; 2007.
13. Davis K. Extension in sub-Saharan Africa: (eds.) *knowledge generation and technical change: Overview and assessment of past and current institutional innovation in agriculture*. *Journal of international Agricultural and Extension Education*. 2008;15(3):15-28.
14. Assa K. *Assessment of Sasakawa Africa fund for extension education training programme in Mali: Graduates' perceptions of the training impact as well as opportunities and constraints related to Supervised Enterprise Projects*. PhD Thesis; 2013.
15. Tunji A, Johnson E. *A case study of the Sasakawa Africa Fund for Extension Education Programme at Ahmadu Bello &*

- Bayero Universities, Nigeria. A Report by SAFE, Nigeria; 2013.
16. Ja'afar-Furo M, Neils J, Mojaba D, Sulaiman A, Shall J. Training needs assessment of mid-Career agricultural extension officers: Evidences from Sasakawa Africa Fund for Extension Education intervention in North-east Nigeria. *Journal of Agricultural Extension & Rural Development*. 2012;4(18):471-177.
 17. Suleiman A. Performance of Supervised Enterprised Projects (SEPs) Conducted by Sasakawa Africa Fund for Extension Education Students' of Bayero University, Kano (BUK). M.Sc. Dissertation, Faculty of Agriculture, BUK, Department of Agricultural Economics & Extension; 2012.
 18. Maguire C. Agricultural education and training to support agricultural innovation system. In *Agricultural innovation systems: An investment source book*. Washington, DC: World Bank; 2012.
 19. Belay K, Ferdu A. Case study of Sasakawa Africa Fund for Extension Education (SAFE) Program at Haramaya University, Ethiopia. Safe; 2008.
 20. Samuel N, Thomas B. Assessment of Sasakawa Africa Fund for Extension Education (SAFE) Programme in Ghana. *Journal of International Agriculture & Extension Education*. 2007;14(10):1-10.
 21. Festus A, Ismail B. A case study of Sasakawa Africa fund for extension education programme in Ghana. Addis Ababa, Ethiopia: Safe; 2007.
 22. Kabutha C. Impacts of women graduates of B.Sc training Agricultural Extension Programme for Mid-Career Professionals-Haramaya University, Ethiopia. Workshop Report, Ethiopia, Addis Ababa; 2007.

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