



## **Discrepancy Score of Job Competency on 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, IOO 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 examines the discrepancy of job competency on SAFE programme beneficiaries in North-Western Nigeria. A multi-stage sampling technique was adopted in selecting 285 sample sizes. Two categories of respondents were considered namely: SAFE beneficiaries (212) and employer's (73). Primary data was collected using structured questionnaires and all the questionnaires were returned and found useful for the study. Data collected were analyzed using descriptive statistics such as percentage counts, means; standard deviation and discrepancy scores. The study revealed that majority (96%) of the SAFE beneficiaries were male, married (86%) with a mean age of about 44 years, and about 18 years of working experiences in extension services. SAFE beneficiaries had a mean of 6 persons per household with a current mean salary grade level of 12. The study revealed that job competencies identified in SAFE programme were rated 'high important' to extension service delivery. The study further reveals that SAFE beneficiaries were rated high in job competencies possessed as result of SAFE programme. More so, the study established a positive (0.00) discrepancy score on professionalism among the SAFE

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beneficiaries in the study area. The study concludes that SAFE programme had positively influenced job competencies of the agricultural extension workers. The study further recommends that there is need for more female incorporated in agricultural extension services, inclusiveness of other extension workers to key into the SAFE programme as well as the need to strengthened professionalism in the SAFE programme curricula across the participating Universities in Nigeria.

*Keywords: Discrepancy score; job competency; programme; beneficiaries; Nigeria.*

## 1. INTRODUCTION

Agricultural extension services include transferring knowledge to farmers, advising and educating farmers in their decision making, enabling farmers to clarify their own goals and possibilities, and stimulating desirable agricultural developments [1,2].

However, apart from providing farmers with the necessary knowledge, skills and required technical information to warrant them take effective farm management decisions to enhance their farm practices, agricultural extension workers are saddled with the responsibility of ensuring that innovations are passed on to farmers appropriately [3]. These services cannot be appropriately delivered at the right domains without the utilization of efficient extension personnel. The attainment of the latter can be hinge largely on the training of adequate and appropriate work force to carry out the task [4].

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 and skills, 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 [5].

Competency is the quality of being adequately or well qualified, having the ability to perform a job [6]. Therefore, competent extension workers are the assets of agricultural extension services. The diverse, dynamic agricultural system, advancing science and technologies, changing socio-demographics, increasing globalization and growing competition for resources demand agricultural extension workers to be proficient in the technical aspects of their areas of expertise

[7;8]. In other words, the need and demand for extension workers to demonstrate a higher level of professionalism in their services are growing. As [9] stated, "Extension employees should possess the necessary competencies to anticipate and deliver quality educational programmes of relevance and importance to our public".

Investment in people's education is realized through formal, informal, and non-formal settings, each of which allows people to be lifelong learners for the improvement of health, nutrition, citizenship, and their overall quality of life [10] as cited in [11]. In addition, education is planned to develop and maintain the socio-economic capabilities of people [12].

It is against this background that 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 skill 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 [13]. In addition, SAFE programme was established in collaboration of SAA and Winrock international foundation base on the awareness of the insufficient competent extension personnel in extension programmes in SSA [14].

However, only little empirical literature exists on the roles and performance of extension workers in Nigeria, a case of SAFE programme beneficiaries. There are sporadic studies on criticisms that extension was not being able to perform the necessary changes in the rural

community [15]. In view of the above, it is important to assess the efforts and value of the investment made by the SAFE programme.

It is against this backdrop that this study was design to examine the discrepancy score on job competency of SAFE programme beneficiaries in North-Western Nigeria.

### 1.1 Objectives of the Study

The broad objective of this study is to examine the discrepancy score of job competency on SAFE programme beneficiaries in North-Western Nigeria.

Specifically, the study aims at achieving the following objectives:

- i. Describe the demographic characteristics of the SAFE programme beneficiaries in the study area.
- ii. Assess the levels of importance of job competencies of SAFE programme in the study area.
- iii. Assess the levels of job competencies possessed by SAFE programme beneficiaries in the study area
- iv. Examine the job competencies gap of the SAFE beneficiaries in the study area.

## 2. METHODOLOGY

The study was carried out in North-Western Nigeria. The population of the study consisted of all the SAFE programme beneficiaries for a period of time (2005 - 2019) and their employers in the study area. A multi-stage sampling technique was used to select 285 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 time (2005 - 2019). At the second stage, two groups of respondents were purposively selected namely; SAFE programme beneficiaries, and employers. At the third stage, proportionate to size sampling method was used to select sample size (respondents) from each of the two selected groups. Finally, a simple random sampling was

used to select the target respondents of the study. Primary data was collected using structured questionnaires and all the questionnaires were returned and found useful for the study. Data collected were analyzed using descriptive statistics (percentage counts, means, standard deviation and discrepancy score).

### 2.1 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 competency levels; equal to  $\bar{x}$ 3.0 + SD was moderate competency levels. While, any mean score value of less than (<) 3.0 was regarded as low competency level respectively.

### 2.2 Measurement of Variables

The study had three types of variables, independents, intervening and dependents. The study variables were operationalized as depicted in the conceptual framework in to observable characteristics that are measurable. These involve the definition of the variables so that they can be measured or expressed quantitatively as below:

#### 2.2.1 Demographic characteristics of safe beneficiaries

Age, household size, grade level and years of experience were measured at interval level while gender, marital status, specialization area, rank and educational level were measured at nominal level.

- ❖ Age of the respondents was measured by the number of years from birth.
- ❖ Gender of respondents was measured as Male = 1 and Female = 0.
- ❖ Marital status of the respondent was measured as married = 1, single = 2, widow = 3, and Divorce = 4.
- ❖ Educational level of respondents was measured and scored based on the number of years spent in schooling as First Degree = 17, Masters = 19 and PhD = 22.
- ❖ Income: Monthly salaries of the SAFE graduates was measured based on the net amount received per month in naira.
- ❖ Household size of the respondents was measured as the number of dependent persons per household of a respondent.

- ❖ Working experience of SAFE graduates was measured based on the number of years that respondent spent in extension service.
- ❖ Organizational type was measured and scored based on the type of extension organization that a SAFE graduate works with such as government or public = 1; private = 2, and NGOs = 3.

### 2.2.2 Level of job competencies possessed

The competency areas were provided with 5 items under each competency area. Respondents were requested to indicate their perceived level of the competencies possessed of SAFE beneficiaries after the programme using 5-points Likert scale of Very High (VH) = 5, High (H) = 4, Moderate (M) = 3, Low (L) = 2 and Very low (VL) = 1. The total score of the items under each of the competency areas for each respondent was calculated and their mean computed. Then, the perceived mean ratings were determined and used as a benchmark to trichotomize the level of job competencies as high, moderate and low.

### 2.2.3 Job competencies considered important

The competency area were provided with 5 items under each competency area. Respondents were requested to indicate their perceived level of importance of the competencies in agricultural extension services using Five-point scale of Very high important (VHI)=5; High Important (HI)=4; Moderate important (MI)=3; Low (L)=2 and Very Low important (VLI)=1. The total score of the items under each of the competency areas for each respondent was calculated and their mean computed. Then, the perceived mean ratings were determined and used as a benchmark to trichotomize the level of importance of job competencies as high, moderate and low.

### 2.2.4 Competency gap

This was determined by computing the discrepancy score (DSs). The DSs were determined on the basis of the differences between the scores level of importance and level of possessed of competencies after the SAFE programme. The scores for each respondent were first converted to mean and then the mean scores for level of possessed competencies were subtracted from the mean scores for level of important of competencies ( $DS = \bar{x}LI - \bar{x}LP$ ). These differences were considered as

competency gap or further training needs in the identified competency areas. Positive values indicate a need for training while negative values indicate absence of training need.

## 3. RESULTS AND DISCUSSION

### 3.1 Demographic Characteristics of SAFE Beneficiaries

This aspect (Table 1) provides information on age, gender, marital status, and household size, working experience, educational level and specialization area of SAFE beneficiaries in the study area.

### 3.2 Age of SAFE Beneficiaries

The result on the age distribution of SAFE beneficiaries is presented in Table 1. The result reveals that 38.54% of the SAFE beneficiaries had less than 40 years. While more than quota (47.92%) of them were between 41 – 50 years with only 13.54% had 51 – 60 years of age. The mean age of SAFE beneficiaries observed was 43.73years with a standard deviation of 6.337. This indicates that the ages of respondents are highly varied, they are found to be within the active age bracket of 40 - 50 years. This also implies that 86.46% of the SAFE beneficiaries in the study area were less than 50 years of age; as such competencies acquired can be utilized for more than 15 years in extension work. The result is in conformity with the findings of [16,17,18] that agricultural extension workers in Oyo, Ogun, Kebbi, Katsina in Nigeria are between 40 – 50 years of age which means that competencies acquired through training can still be utilized for effective extension services for at least 15 years.

Moreover, age has a greater influence on productivity as it affects the structure of labour input in the production of goods and services. This is because it influences the amount and quality of physical and mental efforts put into any economic and developmental activity.

### 3.3 Gender of SAFE Beneficiaries

Gender here refers to the state of being male or female. The result in Table 1 reveals that majority (96.35) of the SAFE beneficiaries were male with only 3.65% female in the study area. This implies that gender in the study area as affected by SAFE programme were found to be dominated by males as male were predominant in the agricultural extension services in the study

area. The implication is that more male gender in extension service will affect the gender equality thereby promoting the gender inequality in extension service work.

Trained and qualified women extensionists are important, as any other field, for an envisaged fast development of the agricultural sector. The small number of female extension graduates and their under representation in the key decision positions is a great concern and a handicap in agricultural development. Their expertise could have been used to address several rural development issues including the rural women. Consequently, this may affect any programme that is women-centered programme in the study due to small number of female personnel to effectively handle the programme.

This study agreed with the findings of [19;17;11; 18] that agricultural extension workers in Oyo, Ogun as well as in the Northern states of Nigeria were mostly male and this has a negative implication for gender balance in extension services. In addition, [20;21] reported that 100% of the extension agents in Kebbi and Katsina states were male. While, Assa [22], reported that 80% of SAFE graduates in the Republic of Mali were male with only 20% female. This reveals that there is need for female recruitment in the extension services to strengthen the gender equality, provides free and effective interactions among female counterpart farmers in the study area.

### 3.4 Marital Status of SAFE Beneficiaries

The finding further reveals that majority (86.46%) of the SAFE beneficiary respondents were married, 10.94% single and only 2.60% were widowed. This practice conforms to the both Islamic and Christian religions that motivate and uphold marriage as an act of worship in the study area, as majority of people in the North West are Muslim with minority Christians. This finding confirmed that of [20;23;21;22;18] in Nigeria, observed that most of the agricultural extension workers in Kebbi, Katsina, Oyo and Ogun states were married. This upheld the societal expectation that married people in the regions has values, respect, integrity, and are responsible. Therefore, this may promote extension worker efficiency and effective service delivery.

### 3.5 Household Size of SAFE Beneficiaries

The result on household size indicates that 48.96% of the SAFE beneficiaries had family size

of about 6–10 person, 41.15% had about 0–5 person while 9.89% of the SAFE beneficiaries had more than ten persons per household with a mean of about 6.08 persons and a standard deviation of 4.144. This result conforms to that of [23;22;18], whose observed that the household size of extension workers and SAFE graduates to be more than five persons per household size. However, a large household size may be as a result of long-life age of the respondents and this may consequently had negative implication on the job commitment and competency of worker due to family-job conflict.

### 3.6 Educational Level

The distribution of SAFE beneficiaries according to the educational level is presented in Table 1. Although, all the SAFE beneficiaries were Higher National Diploma (HND) holders before participation in the SAFE programme. Furthermore, after SAFE programme participation the result indicates that majority (90.6%) of SAFE beneficiaries had B.Sc. degree, 8.9% had master's degree and only 0.5% had Ph.D. degree. This implies that the distribution of SAFE beneficiaries on the educational level shows that they are well educated and trained to undertake any agricultural responsibilities because they have better technical and professional skills due to the exposure and intervention from SAFE programme. This corroborates with the findings of [24;22;11], that SAFE graduates are well equipped and competent for their job as competency and adequate job behaviors are vital tools for the successful agricultural development.

In addition, the philosophy of this is that education has the propensity score to raise the technical and managerial competence of an educator. The level of education attained by an extension educator not only increases his efficiency and work quality but also enhances his capability to understand problem, plan, organized, implement and evaluate any agricultural programme.

### 3.7 Working Experience

The result on years of working experience of the SAFE beneficiaries reveals that 38.02% had more than 20 years of work experience and 32.81% had 1 – 10 years. The result also shows that 29.18% of SAFE beneficiaries had 11 – 20 years of working experience. The mean years of working experience was estimated as 18 years with a standard deviation of 9.029. This suggests

that SAFE beneficiaries may have acquired a lot of experiential learning on the job which improved knowledge in assisting their clients, participates on government policy formulations and implementation about farm family. Experience enables the extension worker to acquire more experiential learning which increases their field knowledge. According to Nwaru [25], experience may be defined as the knowledge and skill gained by contact with facts and events. In a sense, it enables an extension worker to initiate, design, plan, implement as well as evaluate any agricultural programme for the betterment of his clients or farmers. This is also consistent with Iheke and Okezie [26], which noted that extension workers will count a lot on their working experience for increased competence. Experience therefore enhances the technical competence of an extension worker and exerts a positive influence on agricultural development activities.

This result corroborate with the recommendation of Akinbile [18] that many years of experience may not be a guarantee for competency, but acquiring more competencies by extension workers which enables them strengthen their commitment and function effectively in their respective service areas as purposely design for SAFE programme.

### **3.8 Area of Specialization**

The study reveals that 63% of the SAFE beneficiaries had primary background on agricultural extension and farm management. 16.1% and 12% had crops and livestock background. While 3.1%, 3.1% and 2.6% were specialized on soil, agricultural engineering and forestry/fishery, respectively. This implies that SAFE programme captured all areas of agriculture that contributes in the development of agricultural sector as a whole.

### **3.9 Workplace of SAFE Beneficiaries**

The result (Table 2) on workplace of SAFE beneficiaries revealed that 43.39% of the respondents were working with agricultural development projects (ADPs), 10.38% work with Federal Ministry of Agricultural and Rural Development and their agencies, 30.19% work under states Ministries of Agriculture and Rural Development and Ministries of Livestock and Animal Husbandry while 10.85% and 5.19% of the respondents indicates to work to work with

Local Government Council and Non-governmental organizations in the study area respectively. This implies that SAFE programme beneficiaries are widely spread to mostly agricultural related agencies in in study area. This corroborate with the finding of Akinbile [18] that ADPs should intensify with innovative competencies relevant to farmer's needs.

### **3.10 Levels of Importance of Job Competency in Extension Work**

The distribution of SAFE beneficiaries on the level of importance of job competency in extension service delivery in the study area is presented in Table 3. The result reveals that all seventeen competency areas (17) were considered highly important by the SAFE programme beneficiaries in their extension services. This is because all the competency areas were rating above the mean plus standard deviation. This is due to the fact that the current extension trend needs knowledgeable and skills personnel for effective services delivery. Meanwhile, the high important rating of agricultural entrepreneurship, group dynamics, PRA and professionalism is not by chance, because in today's contemporary situation; agricultural entrepreneurship, participatory, group dynamics, as well as the keen professionalism are anchored to effective agricultural extension service delivery.

In addition, agriculture nowadays shifted from development to business enterprises despite the fact that, the expectations are that the professional agricultural extension worker should demonstrate positive attitude towards extension services, had strong job competencies, effectively interpreted research findings and take independently task confidently without supervision which corroborate with [27] opined that staff who practice professionalism keep themselves abreast of current knowledge and skills. The study agreed with Akinbile [18], states that professionalism and core competencies complement each other very well. It can thus be said that professionalism is one of the key competencies that extension personals should possess to function effectively in their service delivery. This also implies that all the competency areas identified are of important and deemed necessary for effective extension service delivery by the extension workers.

**Table 1. Distribution of safe beneficiaries by demographic characteristics (n=212)**

<b>Variables</b>	<b>Percentage (%)</b>	<b>Mean</b>	<b>SD</b>
<b>Age</b>			
≤ 40	38.54		
41- 50	47.92	43.73	6.337
≥ 51	13.54		
<b>Gender</b>			
Male	96.35		
Female	3.65		
<b>Marital status</b>			
Married	86.46		
Single	10.94		
Widow	2.6		
<b>Household size</b>			
0 - 5	41.15		
6 - 10	48.6	6.08	4.144
≥ 11	9.89		
<b>Working experience</b>			
0 - 10	32.81		
11 - 20	29.17	17.79	9.029
≥ 21	38.02		
<b>Educational level</b>			
B.Sc.	90.6		
M.Sc.	8.9		
Ph.D.	0.5		
<b>Specialization area</b>			
Agricultural Extension & Management	63		
Crop Production	16.1		
Soil Fertility	3.1		
Animal Health & Production	12		
Forestry/ Fishery	2.6		
Agricultural Engineering	3.1		

Source: Field survey (2019).NB: SD =Standard Deviation

### 3.11 SAFE Programme Beneficiaries' Level of Competencies Possessed

The distribution of SAFE beneficiary employers' according to their perceived level of competency of SAFE beneficiaries before and after programme participation is presented in Table 4. The results reveals that SAFE beneficiaries before participation in the programme were only moderately competent in three competency areas identified namely; programme implementation ( $\bar{x}=3.08$ ), public relations ( $\bar{x}=3.02$ ) and group dynamic ( $\bar{x}=3.09$ ). The remaining fourteen competencies of SAFE beneficiaries before programme participation were rated not competent because there means falls below the average mean of 3.00 (not competent) as a decision rule for this study.

Similarly, the result also revealed that SAFE beneficiaries' competency levels as identified by their employers' were rated high competent in all

competency areas identified. Such areas are; programme planning, implementation, evaluation and ICTs, teaching and communication as few to mention. The further observed that PRA ( $\bar{x}=4.68$ ), public relations ( $\bar{x}=4.64$ ), leadership skills ( $\bar{x}=4.60$ ) and communication skills ( $\bar{x}=4.60$ ) competency areas of the SAFE beneficiaries were rated highly competent. This implies that prior to SAFE programme participation agricultural extension worker needs more competency training for effective and successful agricultural extension service delivery.

This finding conformed to Eicher [28], opinion that success of any extension outfit depends greatly on their competencies in the identified areas and ability to demonstrate and communicate them to their target farmers. Similarly, Liles and Murtian [29] opined that continuous development of competencies is necessary for professionals to stay in turn with the socioeconomic and technological changes in

their domains in addition, the effectiveness of any organization agents depend on their capability to attain and efficiently use the existing knowledge and competencies to achieve a desired goals among the target farmers [30].

### 3.12 Perceived Competency Gap of SAFE Beneficiaries

The distribution of SAFE beneficiaries according to the competency gap in the study area was determine and is presented in Table 5. The results revealed that SAFE beneficiaries in the study area had only one positive discrepancy scores in all the seventeen (17) competency areas identified. This study determined a competency training needs in the identified competencies training involved on SAFE programme. This is as result of the positive discrepancy score mean obtained. Meanwhile, the identified competency gap (mean discrepancy score = 0.00) was lack of

professionalism among the SAFE beneficiaries in the study area.

The implication of this study is that extension officers in the study area have shown to acquire a lot of competencies due to SAFE programme participation compared to their counterpart in the same organizations which corroborate with Nwaogu and Akinbile [18], that extension officers from Oyo and Ogun States, Nigeria had higher percentage of positive discrepancy values in 12 competencies area that indicates the competency need trainings on 7 areas out of 13 areas.

This study also conformed to the findings of Hussaini et al. [31], that there is need to continuously strengthen competencies of agricultural extension officers in developing countries in all competency areas to improve their performance in service delivery. This assertion is in line with the aimed of SAFE programme in Sub-Sahara African design to

**Table 2. Distribution of safe beneficiaries by workplace (n=212)**

Workplace	Frequency	Percentage (%)
Agricultural development projects (ADPs)	92	43.39
State ministry of agriculture	64	30.19
Federal ministry of agriculture	22	10.38
Local government agricultural departments	23	10.85
Non-governmental organization (NGOs)	11	5.19

Source: Field survey (2019)

**Table 3. Level of importance of job competencies among SAFE beneficiaries**

Competency areas	SA	A	SLA	UN	NA	Mean	SD	Decision
Programme planning	10.2	79.5	10.2	-	-	4.00	.454	High
Programme implementation	10.2	80.1	9.7	-	-	4.01	.457	High
Programme evaluation	10.8	79.5	9.7	-	-	4.01	.453	High
Information & Comm. Technology	15.9	76.7	7.4	-	-	4.09	.496	High
Extension teaching & communication	19.9	73.9	6.3	-	-	4.14	.494	High
Interpersonal and public	29.5	65.3	5.1	-	-	4.24	.537	High
Research and problem solving	37.5	54.5	6.8	1.1	-	4.28	.641	High
Leadership skills	39.2	54.5	6.3	-	-	4.33	.590	High
Gender and youth issue	42	50.6	7.4	-	-	4.35	.613	High
Resource management	38.6	58	3.4	-	-	4.35	.546	High
Group dynamics	46	52.3	.6	1.1	-	4.41	.695	High
Participatory Rural Appraisal	41.5	53.4	5.1	-	-	4.36	.579	High
Critical thinking	34.1	61.9	4	-	-	4.30	.540	High
Communication	44.9	49.4	5.7	-	-	4.39	.595	High
Value addition	34.1	59.1	6.8	-	-	4.27	.580	High
Professionalism	44.3	51.7	4	-	-	4.40	.567	High
Agricultural entrepreneurship	35.2	58.5	6.3	-	-	4.29	.577	High

Source: Field survey (2019)

NB: VH= Very high; H= High; M= Moderate; L= Low; VL=Very Low. Likert scores are in percentages. (Decision; Results were trichotomized as: above mean (3.00) + SD = High; 3.00 + SD = Moderate; Less than 3.00 = Low Important)

**Table 4. Employer’s perception on SAFE beneficiaries’ competency levels after participation**

Competency Area	VH	H	A	L	N	Mean	SD	Decision
Programme Planning	26	62	12	-	-	4.14	0.606	High
Programme Implementation	50	44	6	-	-	4.44	0.611	High
Programme Evaluation	50	50	-	-	-	4.50	0.505	High
Information & Comm.Tech.	50	50	-	-	-	4.50	0.505	High
Ext. Teaching & Com.	50	50	-	-	-	4.50	0.505	High
Interpersonal & Public relations	64	36	-	-	-	4.64	0.485	High
Research & Problem solving	60	34	6	-	-	4.54	0.613	High
Leadership skills	60	40	-	-	-	4.60	0.495	High
Gender & youths issues	50	50	-	-	-	4.50	0.505	High
Resource management	46	54	-	-	-	4.46	0.503	High
Group dynamics	44	56	-	-	-	4.44	0.501	High
Participatory Rural Appraisal	68	32	-	-	-	4.68	0.471	High
Critical/ System Thinking	46	54	-	-	-	4.46	0.503	High
Communication skills	60	40	-	-	-	4.60	0.495	High
Value addition	52	48	-	-	-	4.52	0.505	High
Professionalism	52	48	-	-	-	4.40	0.505	High
Agricultural Entrepreneurship	40	50	10	-	-	4.40	0.495	High

Source: Field survey (2019).

NB: VH= Very high; H= High; M= Moderate; L= Low; VL=Very Low. Likert scores are in percentages. (Decision; Results were trichotomized as: above mean (3.00) + SD = High; 3.00 + SD = Moderate; Less than 3.00 = Low Important).

**Table 5. Discrepancy scores between level of importance and possessed competencies on SAFE beneficiaries’**

Competency area	$\bar{x}LI$	SD	$\bar{x}LP$	SD	$\bar{x}DS$	Decision
Programme Planning	4.00	0.454	4.14	0.606	-0.14	Absence
Programme Implementation	4.01	0.447	4.44	0.611	-0.43	Absence
Programme Evaluation	4.01	0.453	4.50	0.505	-0.49	Absence
Information & Comm.Tech.	4.09	0.476	4.50	0.505	-0.41	Absence
Ext. Teaching & Com.	4.14	0.494	4.50	0.505	-0.36	Absence
Interpersonal & Public relations	4.24	0.537	4.64	0.485	-0.40	Absence
Research & Problem solving	4.28	0.641	4.54	0.613	-0.26	Absence
Leadership skills	4.38	0.590	4.60	0.495	-0.22	Absence
Gender & youths issues	4.35	0.613	4.50	0.505	-0.15	Absence
Resource management	4.35	0.546	4.46	0.503	-0.11	Absence
Group dynamics	4.41	0.695	4.44	0.501	-0.03	Absence
Participatory Rural Appraisal	4.36	0.579	4.68	0.471	-0.03	Absence
Critical/ System Thinking	4.30	0.540	4.46	0.503	-0.16	Absence
Communication skills	4.39	0.595	4.60	0.495	-0.21	Absence
Value addition	4.27	0.580	4.52	0.503	-0.25	Absence
Professionalism	4.40	0.567	4.40	0.494	0.00	Training need
Agricultural Entrepreneurship	4.29	0.56	4.54	0.503	-0.28	Absence

Source: Field survey (2019)

NB:  $\bar{x}LI$  =Mean Competency level of Important;  $\bar{x}LP$  = Mean Competency Level possessed; SD= Standard Deviation and  $\bar{x}DS$  = Mean discrepancy scores (Decision: Positive (+)  $\bar{x}DS$  implies Training needs; Negative (-)  $\bar{x}DS$  implies Absence of training needs)

upgrade the inadequacy of competencies on knowledge, skills and attitude among mid-career extension workers.

Therefore, the philosophy of this results was that training needs identified should be considered as important area for designing future SAFE

programme curriculum for the extension officer in the study area. Similarly, updating the knowledge and skills of extension officers on professional areas deemed necessary and would assist them to be competent enough to face the current challenges of agricultural extension services.

#### 4. CONCLUSION AND RECOMMENDATIONS

Based on the findings of this study, the study established that the SAFE programme has improved the job competency of agricultural extension workers in the study area. Based on the findings of the study, the following recommendations were deemed necessary with the view to making SAFE programme and agricultural extension work viable tools for the improvement of agriculture and rural development.

- i. The North-western states, Federal and Non-governmental organizations should employ more female extension workers to meet the gender equality required in extension services. This is because women-centered programmes should be female touch for effective delivery.
- ii. Government and Non-governmental Agricultural sectors should recruit more youth graduates into the sector to curtail the drain of competent ageing workers.
- iii. SAFE programme competencies should be adopted into the conventional or traditional agricultural degree programme for wider competency development and sustainability.
- iv. Professionalism should be strengthened into the SAFE curricula by the policy maker. Like Usmanu Danfodiyo University, Sokoto, SAFE curriculum with Livestock, Crop, Soil, Post-Harvest and Fisheries aspect.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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