PROFESSIONAL COMPETENCY NEEDS OF AGRICULTURAL EXTENSION AGENTS OF OGUN STATE AGRICULTURAL DEVELOPMENT PROGRAMME (OGADEP)

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ABSTRACT

The study assessed professional competency needs of agricultural extension agents of Ogun State Agricultural Development Programme (OGADEP). Simple Random Sampling Technique was utilized to select 81 respondents from the four zones of the organization. The selection include 8 Block Extension Supervisors, 12 Block Extension Agents, while 21 extension agents were chosen from Abeokuta,15 from Ilaro, 9 from Ikenne and 16 from Ijebu Ode. Respondents were interviewed on socioeconomic characteristics such as age, sex, marital status, educational background, income level and job satisfaction measured on nominal and ordinal levels. Result reveals that the mean age of the respondents was 46.95 (SD=6.64) with 42.7% fell between 41-50 years. Male extension agents (53.1%) dominated the respondents' population. Very many among the respondents (75.3%) had degree(s). Respondents were mostly competent in the use and dissemination of Agrochemical machine and fertilizer distributor technology ($\overline{X}$ = 3.99), and agronomic production techniques ($\overline{X}$ = 3.94). Additional competencies were required in Evaluation of extension programmes ($\overline{X}$ = 1.85), latest communication technology (x = 1.83), and; statistical analysis ($\overline{X}$ = 1.80) among others. Barrier to competency acquisition include insufficient funds ($\overline{X}$ = 2.26), lack of training opportunities ($\overline{X}$ = 2.16), increased work load in the offices ($\overline{X}$ = 2.13). Employees are recommended for needed trainings while fund should be made available to staff for their welfare in order to improve their competency levels.

Key words: -Professional Competency Needs, Agricultural Extension Agents, OGADEP,

INTRODUCTION

There is increasing needs and demand for extension professionals to demonstrate a higher level of professionalism in their services. Maddy et al, (2002) states that extension employees should possess the necessary competencies in order to deliver quality educational programmes that are relevant and important to government policies and resource poor farmers whose hand the bulk of agricultural production is left. Competent extension professionals are the assets of any organization because extension work is a people oriented services. It is a dynamic industry requiring extension professionals to cope with change and assist farmers to understand their plights and respond to their problems accordingly. The move toward privatization, demand-driven, grass-root, bottom-up approaches and decentralization has called for a focused planning, implementation and coordination of extension programmes at the local, states and the national levels. In this regards, every extension professional requires a very strong communication skills. Communication is one of the pillars of extension because extension professionals have to communicate needed

technologies effectively with their clients and stakeholders. They should master various types and styles of communication and be able to use them to engage in adaptation of new technologies. In addition to this, professionals should be proficient in their subject matter. They should also demonstrate that they have basic knowledge in their disciplines by way of showing understanding of the new technologies being promoted -- what it is, and why and how it works. They should be able to educate community members about risks and uncertainties due to climate change, market fluctuations, disasters, etc. Others are reference to and making use of publications, research reports, etc.

In consideration of Nigerian economy which was majorly dependent on agricultural production, rapid agricultural development is expected and therefore, large number of extension agents and local officials who understand local problems and how to solve them are required. If these professionals are to serve effectively, they need a wide range of knowledge, skills and attitude which are mostly provided by formal and informal educational system (Adesiji, 2006). These categories of personnel are expected to enhance agricultural technological advancements and adoptions of improved crop and livestock at the grassroots. This is mostly achieved through promotion of trainings and other proficiency development programmes. According to Ajayi, (2008) professionals agreed that the main function of extension is to communicate agricultural research findings and recommendation to people and bring farm problems to research institutions for solution.

Satisfaction of the above function requires the individual agent with a specified level of competency. Training by nature is an organized activity aimed at imparting information to improve the recipients' performance or to help him or her attain a required level of knowledge or skill. It is activity leading to skilled behaviour and a performance improvement tool. Since, it is counter-productive to offer training to individual who do not need it or to offer the wrong kind of training, – successful training needs analysis is therefore needed to enhance productivity (Iwuchukwu, 2013). It is therefore pertinent to provide training opportunities to those personnel in areas where training is mostly needed (Gibson and Hillison, 1994). This is expected to address the problem of farmers' resistance to change and promote hand on experience among farmers themselves so as to enhance the rate of agricultural technological advancement and hence overall development of the sector.

Determining areas of needed competency and helping employee become proficient in those areas are issues of major concern and challenge for many professional in the field and customers of their services. Over some decades now, establishing competencies has become a wide spread practice in many organizations (Bartram et al, 2002). Focusing on competencies helps organizations to effectively communicate their responsibilities, knowledge, and skills needed for their employees. It generates highly knowledgeable and proficient employers who are the most valuable resources for organizations. It is against this backdrop that the study is evolved to determine the professional competency needs of extension agent of OGADEP. It specifically described the socioeconomic characteristics of the respondents, determined the current competency of the respondents, identified the competency

needs of the respondents; and ascertaining barriers to competency acquisition among the respondents. The hypotheses for the study were set in null form: There is no significant relationship between socioeconomic characteristics of extension agents and their professional competency needs. There is no significant difference in the competency needs of the extension personnel across the study zones and; there is no significant relationship between constraints experienced by extension agents and their competency needs.

METHODOLOGY

The study was conducted in Ogun Sate. The State is located in the boarders Lagos State and Atlantic Ocean to the South, Oyo and Osun States to the North, Ondo State to the East and Republic of Benin to the West. The State consists of four agricultural zones namely: Abeokuta, Ijebu-Ode, Ikenne and Ilaro. Simple Random Sampling Technique was utilized to select two (2) Blocks Extension supervisors (BES) and three (3) Block Extension Agent (BEA) from each of the four existing zones while 21 extension agents were chosen from Abeokuta, 15 from Ilaro, 9 from Ikenne and 16 from Ijebu-ode making a total of 81 respondents in all.

Structured questionnaire which was validated by the experts in the field of Agricultural Administration and Extension was used to collect data from respondents on socioeconomic characteristics such as age, sex, marital status, educational level, income level and work experience. These were measured on nominal and ordinal levels. Current level of respondents' competency on various agricultural operations were sought and measured on Very High (VH), High (H), Moderate (M), Low (L) and Very Low (VL). Additional skill (competency) needed was sought on Yes or No while barriers to competency acquisition was scaled on Very Severe (VS), Severe (S) and Not Severe (NS).

Frequency, Percentages, mean and standard deviation were used to analyze the descriptive data while Logic Model, Analysis of Variance (ANOVA) and Pearson Product Momment Correlation analyses were used to test the hypotheses set for the study. Logit model was used to establish relationship of socioeconomic characteristics with competency needs, Analysis of Variance (ANOVA) to test differences in competency needs among the respondents across the zones while PPMC Correlation Analysis was utilized to test the relationship between barriers experienced by the respondents and their competency needs. The level of probability that was accepted as indication of statistically significant relationship for correlation was 0.05.

RESULTS AND DISCUSSIONS

Socioeconomic Characteristic of Respondents

This section of the study presents the results on socioeconomic characteristics of the respondents. As depicted in Table 1, the mean age of the respondents was 46.95 with standard deviation of 6.64. This imply that employees were mostly in their middle ages and thus matured enough to identify their professional competency need areas. About half (42.7%) of the respondents were between 41-50 years indicating that they were young professional and are expected to be more productive. Majority (53.1%) of the respondents were male, 27.2% had Masters Degrees while 3.7% of the respondents had doctoral degree certificates. The review of the distribution of academic qualification

shows that OGADEP has employed a well-educated group of extension personnel. It was further revealed on the table that more than average (69.1%) were moderately satisfied with their jobs. They are therefore expected to be highly committed to their official responsibilities, 23.5% have spent 6-10 years, 38. 3% spent 11-15 years while 23.1% have spent above 15 years. This indicated that most of the respondents are well experienced and should have mastered their job descriptions. The findings corroborate Oladele (1999) who reported that long years of service means that enough experience would have been developed and could be passed down to subordinates on the job for higher efficiency

Table 1: Distribution of Respondents Showing their Socio-economic Characteristics (n=81)

Variables	Frequency	Percentages (%)
Age (years)		
31-4	20	24.7
41-50	34	42.7
51 and above	27	33.3
Mean = 46.95		
SD = 6. 64		
Sex		
Male	43	53.1
Female	38	46.9
Marital Status		
Single	9	11.1
Married	58	71.6
Separated	8	9.9
Divorced	6	7.4
Educational Levels		
OND	3	3.7
HND	17	21.0
B.sc	36	44.4
M.sc	22	27.2
PhD	3	3.7
Income Levels		
< #500,000	5	6.2
#501,000-#1,000,000	71	87.7
Above #1,000,	5	6.2
Experience (Years)		
1-5	5	2
6-10	19	23.5
11-15	31	38.3
Above 15	26	32.1
Job Satisfaction		
Satisfactory	19	23.5
Moderately	56	69.1
Not Satisfactory	6	7.4

Source: Field Survey, 2015

Table 2: **Distribution of Employees based on Current level of Competency (n=81)**

Statement	Mean	S.D
Facilitation of Veterinary	3.46	1.158
Product and by-product processing technology	3.47	1.163
Use of communication and medial gadgets	3.58	0.998
Rural Development and socialization process	3.60	1.126
Demonstration of technologies for farmers	3.64	1.004
Extension delivery methods	3.68	1.149
Reproductive processes	3.67	1.245
Monitoring and evaluation of agricultural extension programmes	3.67	1.118
Soil testing techniques	3.74	0.924
Pest and diseases management strategies	3.79	1.045
Mobilization of farmers by dry season production activities	3.79	1.115
Knowledge of agribusiness and accounting	3.85	1.001
Animal Nutrition and feed technology	3.86	1.083
Crop production/agronomic practices	3.94	1.099
Use of agro chemical machine and fertilizer distributor	3.99	1.18

Source: Field Survey, 2015 $\overline{X}$ = Mean S.D: Standard Deviation

Current Level of Respondents' Professional Competency

Table 2 presents information on the current level of competency of the respondents. As shown on the table, respondents were very competent in many extensions operations extended. Examples of such are: Teaching and utilization of agrochemical machine and fertilizer distributor (x = 3.99); Teaching of agribusiness and Accounting (Mean= 3.85). The success of extension outfit depends greatly on their competencies in the identified areas and ability to demonstrate and disseminate them to their clients (farmers) (America society development 2006). Others were soil testing techniques (Mean= 3.74), production and agronomic practices (Mean= 3.94) animal nutrition and feeding technology (Mean = 3.86), animal reproductive processes (Mean= 3.67), by-product processing technology (Mean= 3.47) among others. Continuous development of competencies is necessary for professionals to stay in turn with the socioeconomics and technological changes in their fields (Liles and Murtian 2004). Also, effectiveness of any organization's agents depend on their capability to attain and efficiently use the existing knowledge and competencies to achieve a desired goals among the target audience (Robertson and Callinan 2002).

Additional Skills Needed for Desired Competencies

Results on Table 3 shows that majority of the respondents agreed that they need additional training for building desired competencies. The list of additional skills needed according to respondents are evaluation of extension programme ((Mean = 1.85). They also needed Latest Communication Technology (Mean= 1.83). Others were statistical analysis (Mean = 1.80). For professional development and training programme to be effective, it is important to have baseline data and good

methodology (Gibson, 2003). Others are group dynamics and process facilitation ($\overline{X}$ =1.78), peoples' management and public relations (Mean=1.77), listening and communication power (Mean = 1.75). As further revealed in the table, respondents required competency in management, publication, leadership and conflict resolution (Mean = 1.74), writing effectively for audience, (mean= 1.72) and; making clear and convincing presentation (Mean = 1.63). According to Cooper and Graham (2001), the identified areas of competencies are very important for successful extension delivery process among professional and therefore should be included in their in-service training programmes in order to achieve the pre-determined goals of extension programmes.

Barriers to Respondent's Acquisition of Professional Competency

Personal integrity, high level of motivation and eagerness are important emotional competencies but seldom included in courses, (Moore and Rudd, 2005). Many factors also worked against the competency acquisition among the study respondents. As depicted in Table 4, the mean values close to 3 are considerable barriers. According to the table, insufficient funds (Mean = 2.26) was the most pressing barriers, this view is consistent with the notion that adult learners' extension including extension agents when considering T&V which make them learners fortnightly are motivated by the responsibility of a better job, promotions, and higher salary (Kowles et al, 2005). this agree with the view of Harder et al (2010), that the barriers preventing Extension personnel from developing cross-cultural competencies were financial costs, limited time and job commitment. Further on the results of the study, Poor access to information (Mean = 2.02), increased work load (Mean = 2.13) and lack of personal motivation (Mean= 2.04) were also indicated. Other barriers according to the respondents were unfair evaluation system (Mean = 2.02), lack of incentives (mean = 2.00), inadequate training opportunities (Mean = 2.16) and ineffective training delivery methods (mean = 2.07).

Table 3: Distribution of Respondents based on Additional Skills/Competency needed (n=81)

Statements	Yes	No	Mean	S.D
Evaluation of extension programs	69(85.2)	12(14.8)	1.85	0.357
Using latest communication technology	67(82.7)	14(17.3)	1.83	0.380
Statistical analysis	65(80.2)	16(19.8)	1.80	0.401
Group dynamic and process facilitation	63(77.8)	18(22.2)	1.78	0.418
Peoples management and public relation	62(76.5)	19(23.5)	1.77	0.426
Listening and communication power	61(75.3)	20(24.7)	1.75	0.434
Organizational management	60(74.1)	21(25.9)	1.74	0.441
Publication of research work	60(74.1)	21(25.9)	1.74	0.441
Nurturing leadership skills in others	60(74.1)	21(25.9)	1.74	0.441
Ability to manage conflicts	60(74.1)	21(25.9)	1.74	0.441
Writing for effectively for target audience	58(71.6)	23(28.4)	1.72	0.454
Creation of learning environment	58(71.6)	23(28.4)	1.72	0.454
Developing good listening skills	56(9.1)	23(30.9)	1.69	0.465
Relation of learning facts with real life	53(65.4)	28(34.6)	1.65	0.479
Making clear and convincing oral presentation	51(63.0)	30(37.0)	1.63	0.486

Source: Field Survey, 2015

$\overline{X}$ = Mean, S.D= Standard Deviation

Table 4: Barriers to Employees' Acquisition of competency (n=81)

Statements	**VS Freq. %**	**S Freq. %**	**NS Freq. %**	Mean	**S.D**
Insufficient funds for training	36(44.4)	33(40.7)	12(14.8)	2.26	0.703
Lack of training opportunities	26(32.1)	34(42.0)	21(25.9)	2.16	0.813
Increased work load at the office	28(34.6)	31(38.3)	21(25.9)	2.13	0.802
Ineffective training delivery method	35(43.2)	26(32.1)	20(24.7)	2.07	0.755
Time constraints	32(39.5)	26(32.1)	23(28.4)	2.04	0.782
Lack of personal motivation	26(32.1)	29(35.8)	26(32.1)	2.04	0.828
Unfair evaluation system	35(43.2)	24(29.6)	22(27.2)	2.02	0.758
Poor access to information communication technologies	31(38.3)	26(32.1)	24(29.6)	2.02	0.790
Lack of incentives	39(48.1)	21(25.9)	21(25.9)	2.00	0.725
Family commitment	24(29.6)	28(34.6)	29(35.8)	1.99	0.844
Lack of supervision or management coaching	40(49.4)	17(21.0)	24(29.6)	1.91	0.711
Lack of credible information	28(34.6)	22(27.2)	31(38.3)	1.89	0.806
Lack of personal motivation	27(33.3)	22(27.2)	32(39.5)	1.88	0.812
Lack of educational resources	26(32.1)	22(27.2)	33(40.7)	1.86	0.818
Lack of organizational support	31(38.3)	17(21.0)	33(40.7)	1.80	0.765

Source: Field Survey, 2015

VS: Very Severe, S: Severe, NS: Not Severe. $\overline{X}$: Mean, S.D: Standard Deviation

Testing of Hypotheses

Results in Table 5 shows that Logit Model Regression presents the relationship between respondent's socioeconomic characteristics and their competency needs. As depicted on the table, the variable in the model includes age, sex, Level of education and income level. It is revealed that likelihood ratio test of overall significance of the logit regression were calculated. Chi-square of 62.0 was significant at 5% ($p< 0.05$). The R^2 – value of 0.718 indicated that the variables in the model account for 71.8% of the variation among the explanatory factors has significant effect on their competency need at 5% ($p< 0.05$). Meaning that only level of income (0.015) is associated with their competency need. But other variable such as age, sex, marital status etc. had no relationship with competency needs among the respondents.

Table 5: Logit Model of Regression Showing the Relationship between Socio economic characteristics of Employees and their competency needs

Variables	Coefficient	S.E	Wald	Sig.	Decision
Constant	5.622	6.013	0.874	0.350	NS
Age	-0.079	0.113	0.489	0.484	NS
Sex	-0.863	0.629	1.884	0.170	NS
Marital status	-0.016	0.425	0.002	0.969	NS
Educational level	-0.265	0.308	0.739	0.390	NS
Religion	-0.163	0.433	0.142	0.706	NS
Income level	-1.248	0.515	5.878	0.015	S
Cadre	0.038	0.853	0.002	0.965	NS
Working experience	-0 551	1.055	0.273	0.602	NS

Log likelihood ratio = 96.41; R^2 = 0.718; Chi-square statistics = 62.0; Sig. = 0.015;

Source: Field survey, 2015

The relationship that exists between the variables of the study were expressed in the test of hypotheses. For instance, it was also hypothesed that there is no significant difference in the training needs of extension personnel's across the four zones of the Ogun State Agricultural Development Programmes. As shown on table 6, the results of the Analysis of Variance (ANOVA) revealed that there is a significant difference ($f = 5.868$, $p < 0.05$) in the competency needs of extension personnel across the zones of the organization. Furthermore, a post-hoc multiple comparisons were carried out to test the difference. The table also indicated the significant difference in the competency needs of the sampled respondents. This indicates that the specific area of competency needed by individual staff in one zone was not the same in another zone. The differences might account for dissimilarity in their training backgrounds, areas of specialization and in-service training exposure for period of time being in their duty posts.

Table 6a: Analysis of Variance showing differences in training needs across the four zones

	Sum of squares	Df	Mean Square	F	Sig	Decision
Between groups	88.249	3	29.416	5.868	0.001	Sig
Within groups	385.973	77	5.013			
Total	474.222	80				

Source: Field survey, 2015.

Table 6b: Post Hoc Tests

(I)Location	(J)Location	Mean difference (I-J)	Std. Error	Sig	Decision
Abeokuta Zone					
Ilaro zone		-2.069	0.676	0.003	S
Ikenne zone		-1.242	0.742	0.098	S
Ijebu zone		0.615	0.615	0.346	NS
Ilaro Zone					
Abeokuta zone		2.069	0.676	0.003	S
Ikenne zone		0.827	0.789	0.298	NS
Ijebu zone		2.684	0.701	0.000	S
Ikenne Zone					
Abeokuta zone		1.242	0.742	0.098	S
Ilaro zone		-0.827	0.789	0.298	NS
Ijebu zone		1.857	0.765	0.018	S
Ijebu Zone					
Abeokuta zone		-0.615	0.649	0.346	NS
Ilaro zone		-2.684	0.701	0.000	S
Ikenne zone		-1.857	0.765	0.018	S

Source: Field survey, 2015.

The mean difference is significant at the 0.5 level

Relationship between barriers encountered and level of competency of respondents were also tested. The relationship was tested with Pearson product moment correlation (PPMC). Table 7 reveals that barrier encountered by the extension agents is significantly ($r = 0.316$, $P < 0.05$) related to competency (skills) needs of the respondents.

Table 7: Pearson Product Moment Correlation Analysis Showing Relationship Between Barrier and Level of Training Needs among the Respondents

Variables	r	p-value	Remark
Barriers that hinders competency acquisition and training needs	0.316**	0.004	Sig.

Source, Field survey, 2015;

Correlation is significant at the 0.01 level (2-tailed).

CONCLUSIONS AND RECOMMENDATIONS

The study reveals that young personnel dominated the population. A well-educated group of extension enlist and work with higher degrees for the organization. It was further revealed that respondents' needed additional competency in Extension Programmes evaluation, latest communication technology, and research methodology and group dynamics among others. Insufficient fund for training, training opportunities, work load, time constraints were the most experienced barriers to training and competency acquisition.

Results of hypotheses testing revealed that income level of the respondents is associated with their competency acquisition; there was a significant difference in the competency needs of the respondents' across the four zones of the organization. While barrier encountered by the respondents significantly affect the level of acquisition of their needed professional skills/competencies.

It is therefore recommended that funds should always be made available to staff in order to attend training programmes for enhancement of their competency. Work load, insufficient time, increased in personnel cost of training and lack of incentive should be properly addressed in the organization to ensure that extension agents have opportunities to develop a desired competencies.

Attention should as well be made to needed area of proficiencies such as communication technology, methodology/interpretation of research findings, and leadership skills development among others.

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