

EXTENSION AGENTS' COMPETENCY NEEDS IN RURAL DEVELOPMENT ACTIVITIES IN SOUTHWEST NIGERIA

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ABSTRACT

The study identified and prioritised the competency needs of extension agents in rural development activities. The study determined the levels of knowledge and skills of extension agents in rural development activities, their competency needs in rural development activities and prioritised the identified needs based on available opportunities in the job environment to practise the competency. The study was carried out in southwest Nigeria. Lagos, Oyo and Ondo States were randomly selected for the study. A proportionate sample of 85% of the agents with the Agricultural Development Programmes (ADPs) in the States sampled was selected to give a total of 382 respondents for the study. Data were collected using questionnaire and analysed using descriptive statistical tools while Criticality Function Model was adapted to identify the competency gaps. Findings of the study revealed that the knowledge of the agents was highest in encouraging adoption of agricultural technologies (\bar{x} = 3.48) but lowest in understanding gender/vulnerable group in development (\bar{x} = 2.12). Also, the skill of the agents was highest in community organisation and group dynamics (\bar{x} = 3.01) but lowest in triangulation using rural appraisal tools (\bar{x} = 2.23). Community driven development approach, understanding gender/vulnerable issues in development and triangulation using participatory rural appraisal tools were among the leading competency needs from the low knowledge/low skill quadrant while community driven development approach (\bar{x} = 3.41), planning for social safety net (\bar{x} = 3.29), and use of participatory rural appraisal tools (\bar{x} = 3.26) ranked highest respectively on the priority list of identified competency needs. The study concluded that the job environment of the agents does not provide equal opportunities to practise the identified needs. The study recommended that in planning for capacity development of agents on rural development, competency needs favoured by available opportunity for use within the job environment should be prioritised.

Keywords: Competency needs, Extension agents, Criticality Function Model, Agricultural Development Programmes (ADPs)

INTRODUCTION

The concept of rurality is very complex to define. This complexity in defining the concept had made it impossible to have a universally acceptable definition. However, experts in the related fields had tried to paint a graphical picture of what rural area is in nearly every continent and nations of the world. In Nigeria, Ekong cited in Alfred (2011) described the city as where bright lights are found, where the tempo of life is fast and where all good things of life are in abundance but the village or the rural area as those with opposite the attributes of the city life. Many Nigerians considered rural areas as places given to agricultural production. Late Professor Joseph Ade Alao, the first president of Nigerian Rural Sociological Association, one of Nigeria foremost rural sociologist while delivering a lecture in a rural sociology class, submitted that rural area in Nigeria is a place where small ruminants and poultry of all kinds can sleep on the main roads for hours without vehicular disturbance. Rural area in Nigeria could therefore be considered as places with less than 20, 000 people as well as those with larger population but in which a greater proportion of the inhabitants (50 per cent or more) are engaged in farming and equally lacking in most of the basic infrastructures like electricity supply, police and fire services, pipe-borne water, branches of commercial banks and ten or more post primary

schools among others (Ekong cited in Alfred 2011).

According to a sub-regional workshop on rural development in Africa as cited in Alabi *et al* (2019), rural development is considered as 'a process by which a set of social, technical, institutional and cultural measures are put in place in association with and for the inhabitants of rural areas for the purpose of improving their achieve harmony and balance both on the regional and national levels'. South African Rural Development Framework as cited in Nwachukwu and Ekanem (2011) defined rural development as 'helping rural people set the priorities in their own communities through effective and democratic bodies, by providing the local capacity investment in basic infrastructure and social services; justice, equity and security; dealing with the injustice of the past and ensuring safety and security of the rural population especially that of women'. Furthermore, Williams cited in Adeokun, Oladoja and Olanloye (2011) opined that rural development 'involves the transformation of rural community into a socially, educationally, economically, politically, orderly and materially desirable condition with the purpose of improving the quality of life of the rural population'.

Agricultural extension is one of the approaches that had been tried to achieve rural development (Williams cited in Adeokun, Oladoja



and Olanloye, 2011). The focus of agricultural extension is to bring about increased agricultural productivity by stimulating farmers to use modern and improved scientific production technologies developed through research (Van den Ban and Hawkins cited in Alabi, 2014). Agricultural extension seeks to improve the knowledge and skill of farmers in agricultural production and also seeks to inculcate the right attitude in farmers towards agricultural development. This approach to rural development is limited in that agricultural development on its own will not translate into rural development because though agriculture is the predominant activity in the rural area, yet it will take a concerted effort across different sectors of the rural life to bring about rural development.

Also, the extension agents who are the foot soldiers of agricultural extension organisations are somehow limited in their knowledge and skill in rural development activities. Many of the extension agents working in the field of agricultural development had no background in agricultural extension or rural sociology (Alabi, 2014). Even for those with background in agricultural extension and rural sociology, the curriculum of their pre-service trainings never contained many of the recent concepts in rural community development. Although agricultural extension organisation and agricultural extension agents are the closest to rural development among the government agencies and workers because of the vantage position they occupy in agricultural development, their insufficient knowledge and skill in many of the international donor agencies tested and approved rural development competencies might limit their relevance in the rural development space. This implies that the human capital of the extension agents needs to be developed along the line of rural development to give them a competitive advantage in ensuring rural development.

Rastogi cited in Gogan (2014) opined that human capital could be recognized as an important requirement for employees' continuous improvement on knowledge, skills and abilities. Also, human capital focuses on the economic behaviour of individuals especially in the way their accumulation of knowledge and skills empowers them to improve their productivity and income and by so doing increase the efficiency and the wealth of the societies in which they live (Schuller cited in Njideka, 2011). This implies that the investment of education and training could help improve the knowledge and skill of the extension agents in these modern activities that lead to rural development, however, appropriate needs analysis that reveals accurate performance gaps is needed to give the training direction and ensure its success (Williams cited in Alabi, 2014).

Furthermore, as Fructchery cited in Alabi (2014) opined, identifying performance needs

alerts the trainees to where they are on the continuum of what is and what ought to be and create in them a willingness to maximise the opportunity that training programme affords to learn and close the gap. The work environment of the extension agents should also be considered in determining the contents of training programmes so as not to keep developing in them the competence that the work environment do not provide opportunity for them to practice. If this is not considered, the entire training process and the investment in time and energy of the trainees will not amount to much. Based on the followings, the study therefore, sought empirical answers to the following research questions: how knowledgeable and skilful are the extension agents in rural development activities in southwest Nigeria? What are the competency needs of the extension agents in rural development activities? What are the opportunities available in the work environment of the agents to practise the competencies in rural development activities in southwest Nigeria?

The broad objective of the study is to determine the competency needs of extension agents in rural development activities in southwest Nigeria. The specific objectives are to:

1. determine the levels of knowledge and skill of the extension agents in rural development activities in southwest, Nigeria;
2. determine the competency needs of the agents in rural development activities in southwest, Nigeria; and
3. prioritise the identified competence needs based on the opportunities available in the agents' work environments to practise the activity.

METHODOLOGY

The study area is the southwest geopolitical zone of Nigeria. The zone covered latitude 60° north to latitude 40° south and was marked by longitude 40° west to longitude 60° east. The zone comprised of the states of Ekiti, Ondo, Osun, Oyo, Ogun and Lagos with a combined population of 27, 722, 432 people according to 2006 population census (NBS, 2011). The population of the study comprised of all the extension agents in the service of Agricultural Development Programme (ADP) in all the southwest states of Nigeria.

The sampling procedure for the study followed a multi-stage sampling approach. At the first stage, Ondo, Lagos and Oyo states were randomly selected. The total number of the agents in the selected states was 490 (150 in Lagos, 160 in Ondo and 180 in Oyo states). At the second stage, 85 per cent of the agents in each of the states were proportionately selected. The total extension agents selected for the study was 415 (126 in Lagos, 136

in Ondo and 153 in Oyo states respectively). At the third stage, all the extension agents selected were given a copy of the study questionnaire but only 382 copies were returned which gave a 92 per cent return rate.

The questionnaire for the study comprised of three sections: socioeconomic characteristics of the agents, levels of knowledge and skill in selected rural development activities and opportunity to put the selected rural development activities to work in the work environment. Selected socioeconomic characteristics of the extension agents such as age, years of formal education, year of experience on the job, number of farmers/farm families covered and income per month were measured in their absolute numbers as supplied by the agents. Eleven activities important to rural development were identified through desk study (Abdul-Rahim; and Shibah cited in Alabi 2014).

The knowledge and skill of the extension agents in these activities were measured on a Likert type scale of 1 to 5 with 1 being No knowledge/No skill and 5 being Very high knowledge/Very high skill. The level of knowledge and skill of the agents were categorised using the mean values into No knowledge/No skill (\bar{x} = 1-1.49), Little knowledge/Little skill (\bar{x} = 1.5-2.49), Moderate knowledge/Moderate skill (\bar{x} = 2.5-3.49), High Knowledge/High skill (\bar{x} = 3.5-4.49) and Very high knowledge/Very high skill (\bar{x} = 4.5-5.0) according to Ajayi and Alabi (2012) and Alabi (2014). Data collected were summarised using frequency, mean and standard deviation while Criticality Function model (Hershkowitz, cited in Agbamu, 2017) was adopted to identify the competence gaps of the agents in rural development activities.

The Criticality Function Model was operationalized thus: first, an overall mean score is calculated for knowledge and skill on the rural development activities. Then, the mean knowledge score is plotted on the Y axis and the mean skill score is plotted on the X axis. Perpendicular lines are then drawn from each of these points, resulting in a 2 x 2 matrix. The matrix has four quadrants-high knowledge-high skill (HH), high knowledge-low skill (HL), low knowledge-high skill (LH), and low knowledge-low skill (LL). Furthermore, the mean scores for knowledge and skill of each of the rural development activities were plotted in the matrix. Those falling in the low knowledge-low skill (LL) are those with the highest competency needs.

The opportunity to practise the selected rural development activities in the work environment was also measured on a 5 point Likert type scale with 1 being 'No opportunity to practise' and 5 being 'very great opportunity to practise'.

RESULTS AND DISCUSSIONS

Selected socioeconomic characteristics

Result presented in Table 1 reveals the descriptive statistics of the selected socioeconomic characteristics of the extension agents in southwest, Nigeria. The findings of the study revealed that the mean age of the respondents was 39.3 years. The youngest extension agent sampled was 24 years and the oldest was 59 years. This finding corroborates Alabi and Ajayi (2017) who had earlier reported that average age of extension agents in Osun State in southwest Nigeria was 40.17 ± 7.6 years. This shows that the extension agents in southwest Nigeria are relatively young and therefore possess the required strength to cope with the rigours of field activities requisite for success in their work. The average year of formal education of the agents was 17 years. This translates to a Higher National Diploma degree or a Bachelor of Science degree.

The minimum year of formal education was 13 meaning some extension agents might have been employed with the secondary school certificate. The maximum year of formal education of the agents was 28 years. This will automatically translate to the fact that some of the extension agents in southwest Nigeria had higher degrees in their respective specializations. Also from the table, the mean year of work experience of the agents was 10 years while the minimum was 4 years and the maximum was 33 years. The implication of this is that many of the agents had put in about a decade of service into the organisation they work with. This length of time could have a positive influence on their performance.

Furthermore, the average number of farmers/farm families covered by the extension agents was 585 people in a year. The maximum number recorded for an agent was 1500 people while the minimum was 287 people in a year. This is against the Food and Agricultural Organisation (FAO) standard of one extension agent to 250 farmers. The monthly income of the respondents as presented in the table revealed an average monthly income of ₦60, 274 for the extension agents in southwest Nigeria. This translates to approximately 171 dollars per month.

**Table 1: Descriptive statistics of selected socioeconomic characteristics of the extension agents**

Variables	Minimum	Maximum	Mean
Age in years	19.00	59.00	39.28
Years of formal education	13.00	28.00	16.44
Length of service in years	4.00	33.00	10.34
Number of farmers/farm families covered by agent	287.00	1500.00	584.67
Monthly salary	₦10000.00	₦120000.00	₦60274.00

Level of knowledge of extension agents in rural development activities

Result in Table 2 reveals the mean values of knowledge of extension agents in selected rural development activities. Further Categorisation revealed that extension agents in Southwest Nigeria had moderate knowledge in 4 of the rural development activities listed while they had little knowledge in the remaining 7 activities. From the Table, extension agents recorded the highest activity mean score in encouraging adoption of agricultural technology ($\bar{x} = 3.48$) followed by community organisation and group dynamics ($\bar{x} = 3.26$). This result revealed that extension agents had insufficient knowledge in most of the rural development activities listed. As expected, most of the rural development activities listed is outside the mainstream extension activities in the country as they were not part of the curriculum for the pre-

service training of the extension agents but now form crucial part of many internationally funded community developmental programmes and projects.

Considering the activities with the highest mean scores, it could be concluded that extension agents' high knowledge in encouraging adoption of agricultural technology is expected since the main focus of extension service is the improvement of agriculture by encouraging farmers to adopt better ways (technologies) of doing what they do. Also, since extension works with clientele in groups, the high score value in community organisation and group dynamics could be justified. The least mean scores were recorded in the activities: community driven development approach and understanding gender/vulnerable group issues ($\bar{x} = 2.12$). These findings imply extension agents' dearth of knowledge in rural development activities.

Table 2: Level of knowledge of extension agents in rural development activities

Rural development activities	Mean scores			
	Oyo ADP	Lagos ADP	Ondo ADP	Southwest ADP
Encouraging adoption of agricultural technology	3.16	3.85	3.43	3.48
Use of social mores and tradition in development work	2.94	3.18	3.39	3.17
Utilising local leaders in rural development work	3.21	2.98	3.33	3.17
Use of participatory rural appraisal tools	2.48	2.38	2.37	2.41
Triangulation using qualitative data collection methods	2.52	2.53	2.27	2.44
Understanding gender/vulnerable group issues in development	2.08	2.15	2.14	2.12
Mainstreaming gender/vulnerable group in development activities	2.24	2.18	2.19	2.20
Community organisation and group dynamics	3.02	3.49	3.27	3.26
Community driven development approach	2.18	2.18	2.14	2.12
Planning for social safety net	2.28	2.37	2.28	2.31
Implementing social safety net	2.71	2.66	2.41	2.59

Level of skill of extension agents in rural development activities

Results in Table 3 reveals the mean scores of skill of extension agents in Southwest Nigeria in the rural development activities listed. Extension agents in Southwest Nigeria had moderate skill in five of the eleven rural development activities listed. As seen in the table, extension agents only recorded mean value greater than 3.00 in just one activity, community organisation and group

dynamics ($\bar{x} = 3.01$). This is an indication that extension agents in the region had little skill in managing rural development activities. Specifically, the findings of the study show that they had less than 2.50 mean score in six of the listed rural development activities. The results of the study imply that extension agents in Southwest Nigeria possess inadequate skill in directing the activities that could bring about rural development in the study area.

Table 3: Level of skill of extension agents in rural development activities

Rural development activities	Mean scores			
	Oyo ADP	Lagos ADP	Ondo ADP	Southwest ADP
Encouraging adoption of agricultural technology	2.94	2.54	3.19	2.89
Use of social mores and tradition in development work	2.86	2.83	3.13	2.94
Utilising local leaders in rural development work	2.97	2.49	3.11	2.86
Use of participatory rural appraisal tools	2.45	2.36	2.30	2.37
Triangulation using qualitative data collection methods	2.27	2.20	2.23	2.23
Understanding gender/vulnerable group issues in development	2.48	2.50	2.52	2.50
Mainstreaming gender/vulnerable group in development activities	2.43	2.31	2.44	2.39
Community organisation and group dynamics	3.10	2.75	3.17	3.01
Community driven development approach	2.45	2.38	2.63	2.49
Planning for social safety net	2.43	2.38	2.48	2.43
Implementing social safety net	2.51	2.38	2.55	2.48

Competency needs of extension agents on rural development activities

Based on the 2 x 2 matrix generated by the grand mean scores of knowledge and skill of the extension agents in rural development activities, nine out of the 11 rural development activities were in the low knowledge-low skill (LL) quadrant. This is presented in Figure 1. These findings reveal that nine rural development activities portray areas of competency needs for the extension agents in rural development in southwest, Nigeria. Some of the activities are community driven development approach, understanding gender/vulnerable group issues in development, mainstreaming gender/vulnerable groups in development activities, planning for social safety nets, use of participatory rural appraisal tools and triangulation using qualitative methods in development data gathering and implementing social safety nets. Others are utilising local leaders in rural development issues and role of social mores and tradition in community development work.

Going by the mean scores of the activities presented in the LL quadrant, extension agents in southwest Nigeria still recorded better scores in utilising local leaders in rural development issues and the role of social mores and tradition in community development work, although both activities still fell into the LL quadrant. This implies that if extension agents will be able to contribute more meaningfully in the ever widening rural development space, their proficiency in these identified competency needs must be improved. One of the ways to improve human capacity is training. Therefore, training extension agents on these identified rural development activities will go a long way in having positive implications on their

jobs and on rural community development in general.

Prioritization of identified competency needs based on opportunities in the job environment to practise the competences

Result presented in Table 4 reveals the mean scores of the respondents perceived opportunities in the work environment to practise the identified competency needs. Result presented in Table 4 showed that community driven development approach (\bar{x} = 3.41) ranked first on the list. This implies that the job environment of the agent provides opportunity for them to put to practise the said competence. Planning for social safety net and implementing social safety net (\bar{x} = 3.29) ranked second on the list. This means that the agents perceived opportunities in their work environment to practise these competencies as available. Furthermore, use of participatory rural appraisal tool (\bar{x} = 3.25) was the next competence on the list. This also implies that the agents perceived their job environment offering opportunities to practise the said competency.

The last competence on the list is mainstreaming gender/vulnerable groups in developing activities (\bar{x} = 3.14). The priority list of the competencies showed that the work environment of the agents is more favourable to practising some competencies than others. This implies that when organising training to improve the human capital of the agents in rural development related activities, emphasis should not just be on the identified competencies but importance should also be attached to the various opportunities in the work environment of the agents to practise the competencies they are to be trained on to maximise the return on investment of such training programmes.

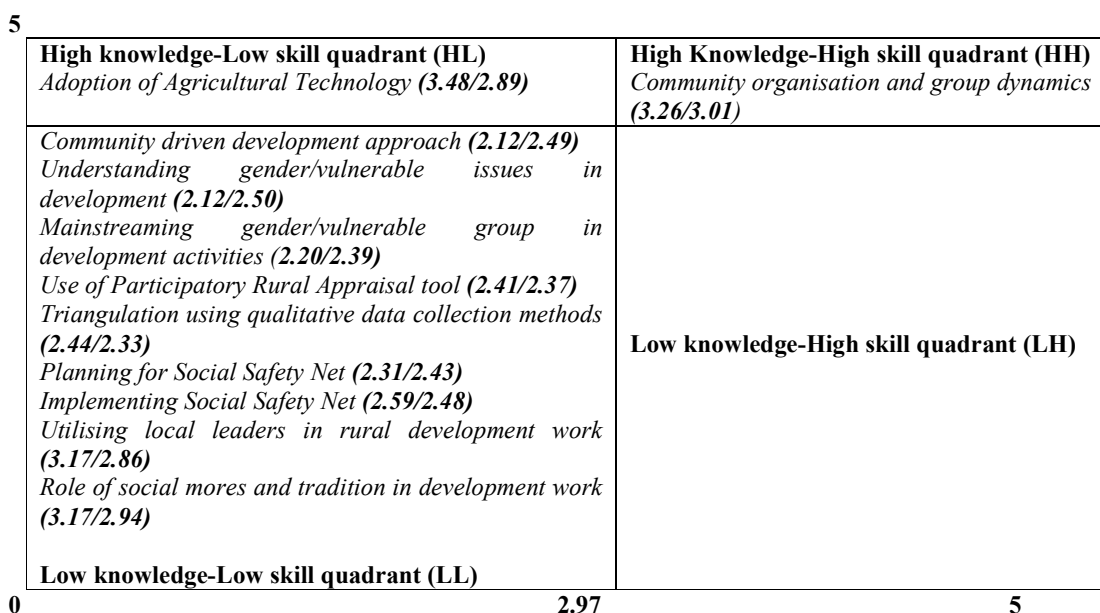


Figure 1: 2 x 2 matrix showing quadrants revealing the competency needs

Table 4: Priority list of the identified competency needs based on opportunity in the work environment to practise the competences

Rural development competencies	Mean	Rank
Community driven development approach	3.41	1 st
Planning for social safety net	3.29	2 nd
Implementing social safety net	3.29	2 nd
Use of participatory rural appraisal tools	3.25	4 th
Triangulation using qualitative data collection methods	3.15	5 th
Understanding gender/vulnerable group issues in development	3.15	5 th
Mainstreaming gender/vulnerable group in development activities	3.14	7 th

CONCLUSION AND RECOMMENDATIONS

The knowledge of the extension agents in southwest Nigeria was highest in encouraging adoption of agricultural technologies and lowest in understanding community driven development approach. Also, the skill of the agents was highest in community organisation and group dynamics and lowest in using rural appraisal tools. Furthermore, the competency needs of the extension agents in rural development activities in southwest Nigeria includes understanding community driven development approach, understanding gender/vulnerable group issue in development and planning for social safety net among others.

The priority list of identified competence needs produced community driven development approach, planning for social safety net and use of participatory rural appraisal tools in descending order revealing the available opportunities in the work environment of the agents to practise the competencies. Based on the conclusions of the

study, the study recommends that the in-service training programmes for the extension agents in rural development activities should focus on the identified competence needs with greater importance attached to the competences on the priority established based on available opportunities in the work environment of the agents to practise them.

REFERENCES

Adeokun, O. A., Oladoja, M. A. and Olanloye, F. A. (2011). Rural development concept and process in Nigeria In Adedoyin, S. F. (ed) Rural, Agricultural and Environmental Sociology in Nigeria, The Nigerian Rural Sociological Association ISBN: 978-38345- 0-9

Agbam, J. U. (2017). Training needs of agricultural media practitioners in the Niger Delta area of Nigeria. *Journal of Sustainable Development*, Vol 1(2) pp 32-40

- Ajayi, A. O. and Alabi, O. S. (2012). Identification by agricultural science teachers in urban and rural areas of Ile-Ife, Nigeria: An application of the Borich model. *Journal of Agriculture and Rural Development* 9: 22-32
- Alabi, O. S. (2014). *Analysis of training needs of agricultural extension agents in southwestern Nigeria*. PhD thesis, Obafemi Awolowo University, Ile-Ife, Nigeria
- Alabi, O. S. and Ajayi, A. O. (2017). Assessment of agricultural extension agents training needs on ICT in Osun state Nigeria. Application of Borich model *International Journal of Agriculture and Development Studies* Vol 2(2)
- Alabi, O. S., Fapojuwo, O. E. and Alabi, O. T. (2019). Rural development efforts in Nigeria in Aderinoye-Abdulwahaab, S. A., Salau, E. S. and Bayei, J. D. (Eds) *Contemporary issues in Nigerian agricultural extension and rural livelihoods*. pp 72-86 ISBN: 978-978-976-608-6
- Alfred, S. D. Y. (2011). The role of rural sociology in the development of rural Nigeria In Adedoyin, S. F. (ed) *Rural, Agricultural and Environmental Sociology in Nigeria*, The Nigerian Rural Sociological Association ISBN: 978-38345-0-9
- Gogan, L. (2014). Human capital – the need to be evaluated. *Reviews of Applied Socioeconomic Research* Vol 7, Issue 1 pp 52-60
- Ladele, A. A. (2011). Rural development process and practice In Madukwe M. C. (Ed) *Agricultural extension in Nigeria*, AESON, c/o of ARMTI Ilorin Nigeria
- National Bureau of Statistics (NBS) (2011). Annual abstract of statistics 2011 Federal Republic of Nigeria. Accessed at URL www.nigerianstat.gov.ng on 15/06/2019
- Nwachukwu, I. and Ekanem, J. (2011). Impact of rural development on agricultural production in Nigeria In Adedoyin, S. F. (ed) *Rural, Agricultural and Environmental Sociology in Nigeria*, The Nigerian Rural Sociological Association ISBN: 978-38345-0-9
- Sinkaiye, T. and Ajayi, A. O. (2012). *Participatory rural appraisal and planning methodologies for sustainable development* Temidejoy Ventures, Apata, Ibadan