



## Agricultural extension worker's competency in entrepreneurship development of rural women farmers in North East Zone of Nigeria

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### Abstract

Agricultural extension is a general term meaning the application of scientific research and new knowledge to agricultural practices through farm education. It can be seen as the dissemination of information/knowledge that is necessary for improving agricultural productivity. The major function of agriculture extension is to educate farmers and solve agricultural problems. The research was carried out in North eastern States of Nigeria. The design used was a survey which study the competencies of agricultural extension workers (AEWs) in entrepreneurial skills development of Rural Women Farmers (RWF) in the study area. Three research objectives and research questions were formulated to guide the study. The population of the study was estimated to be 4580. A sample of 450 respondents (150 AEWs and 300 RWF) were selected. Questionnaire was used as instrument for data collection. The result among others shows that both the AEWs and RWFs consider the items in the instrument as competencies required of any AEW. The study recommended among others that the AEWs should emphasized and improve on the competencies possessed in developing innovations of the RWFs in the study area.

**Keywords:** agricultural extension, competencies, dissemination, innovations

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### Introduction

Women have been making prominent and important contributions to agricultural development of this country and they actually constitute the bulk of the world's food producer in general (Robertson, 2012) <sup>[16]</sup>. Rural women participation in agricultural production at the household level is higher and they spend more time than men in agricultural related activities, their work has not been acknowledged and documented both at the national and international levels (Ndwiga, 2014). Rural women farmers play a significant role in food production and food security (Fabiya, 2007) <sup>[10]</sup>. They account for 70% of agricultural workers, 80% of food producers, and 100% of those who process basic food stuffs and they undertake from 60% to 90% of the marketing (Dagmar, 2013; Cisco & Olungah, 2016) <sup>[9]</sup>. With all these effort, rural women are still poor and non-enterprising in nature. The contribution of women in agricultural production ranges from such responsibilities as land clearing, land tilling, weeding, fertilizer application to harvesting, food processing, threshing, winnowing, milling, transportation, and marketing along with the management of livestock (Damisa, Samndi & Yohanna, 2007) <sup>[8]</sup>. In spite of the significant role played by rural women in agricultural production in Nigeria, they are hardly given any attention in the area of training and visit by extension agents with improved technologies (Damisa, Samndi & Yohanna, 2007) <sup>[8]</sup>. The level of poverty among rural women farmers is always in the increase, they are also not enterprising in nature to enable them invest in various aspects of agriculture, this is because of less interaction between rural women farmers and agricultural extension workers specifically in the aspect of agricultural entrepreneurship.

Agricultural extension services are very important in the development of rural knowledge and innovative systems for rural women farmers. These services are key in influencing rural household decisions, especially in the developing countries that are generally more in need for such guidance services (Alex & Zijp, 2002) <sup>[4]</sup>.

Agricultural extension activity is an important agrarian-and-political instrument of a state, which stimulates the development of agricultural production. Agricultural extension services must be designed to develop agricultural skills among farmers, teach them how to communicate efficiently with producers and stimulate them to acquire new knowledge (Qamar, 2005) <sup>[14]</sup>. Extension service in agriculture is indispensable and it offers more than just expert assistance in improvement of production and processing; it also enables a flow of information and transfer of knowledge and scientific findings. These activities are performed according to rules which regulate the establishment of organizations with functioning goals and fields of work, and ways to execute extension activities by an extension agent (Tborn, 2011) <sup>[19]</sup>. The major function of agriculture extension is to educate farmers and solve agricultural problems. Finding the best suitable solutions and the practical performance of these solutions is the functional objective of agriculture extension (Rivera & Qamar, 2003; Qamar, 2005) <sup>[15, 14]</sup>. There are many problems limiting the performance of Agricultural extension workers in their effort in educating farmers, these include; inadequate funding, poor equipment, inadequate regulation and poor management. All of these are hindrances to bring out their optimum potentials. Most times Agricultural extension workers do not conduct practical, as well as, allocate demonstration plots to farmers, especially in rural areas.

Agricultural extension workers must have an extensive knowledge of various agricultural disciplines and they should have the ability to deal with farmers and persuade them to adopt modern agricultural techniques and ideas as well as knowledge of agribusiness and enterprises so as to use them on their farms (Robertson, 2012) <sup>[16]</sup>. The duties of agricultural extension workers include introducing farmers at agricultural training courses into training programs on various agricultural subjects in order to provide them with information and knowledge about methods and techniques of agriculture, and, consequently, increase their production and income efficiency, improve their living, and raise the social and educational standards of rural life. Agricultural extension takes care in the youth and women in rural areas and enables them to develop their knowledge of various subjects concerning agricultural and social issues. In spite of the undisputable evidences of women's positive roles in the agricultural sector and growing awareness of the need to reach out to women farmers, agricultural extension service and entrepreneurial skills developments are generally geared toward male farmers (Owolabi, Abubakar & Amodu, 2011). Agricultural extension workers are also expected to possess the necessary entrepreneurship skills. Although millions of women throughout the world contribute to national agricultural output and family food security, detailed studies from Latin America, South Asia, and Sub-Saharan Africa consistently indicate that rural women are more liable constraints in accessing agricultural extension services and entrepreneurial skills than men of equivalent socio-economic conditions (Chukwu, 2014). The importance of entrepreneurship in creating value and economic development of any nation cannot be overemphasized especially in developing nation like Nigeria. In order to harness the importance of entrepreneurship development from the growth and development of a given economy, there is need for inculcating entrepreneurial attitude in to the mind of rural women farmers, this is because entrepreneurial activities among rural women farmers have

been found to be capable of making positive impacts on the economy of a nation and the quality of life of the rural people (Adejumo, 2000).

Similarly, integrating entrepreneurship education into agriculture has been supported by various scholars, more recently, Federal Government of Nigeria (FGN) introduced the concept of entrepreneurship education into the curriculum of various educational institutions, including Agricultural extension programme designed to strengthen technical and vocational skills with the specific intent to prepare students to be self-reliant (Oluremi & Gbenga, 2011) <sup>[13]</sup>.

Entrepreneurship development has become necessary in all aspect of extension education in order to prepare youths and rural women farmers and provide them with adequate information about the world of business and opportunities to create their own businesses. It will provides rural women farmers with insights into entrepreneurship and enterprise; it aims to help them realistically consider the options of starting a small business or of self-employment (Mark & Gregory 2002) <sup>[12]</sup>. Entrepreneurship development also ensures the development of new skills and experiences that can be applied to other challenges in life. It promotes innovation and resilience in youth, and women revitalization of the rural communities by providing valuable goods and services, as well as provision of new economic opportunities and trends (Mark & Gregory 2002) <sup>[12]</sup>.

### Statement of the Problems

Agricultural extension system operated since the post-independent era, placed emphasis on farming skills and techniques, which can make farmers to have bumper harvest. Skills acquisition and employment generation have remained a focal point in the Nigerian Government policy. Successive administrations' initiatives to promote self-reliance in the generation of gainful self-employment have been profound. Starting with the acquisition of entrepreneurial skills (Anyadike, Emeh & Ukah, 2012) <sup>[3]</sup>. Rural women farmers are constrained with poverty and lack of access to agricultural information and entrepreneurial skills as most of the extension activities always target male household heads. This could be attributed to the problem of gender issues among people and policy makers. Damisa, Samndi & Yohanna, (2007) <sup>[8]</sup> asserted that policy makers who are mostly men assumed that women play a second fiddle in economic and resource importance. Thus, Women tend to have less contact with extension services than men and generally use lower levels of technology and entrepreneurial skills because of problems of access, cultural restrictions on use or lesser interest in doing research on women's crops and livestock production activities (Chukwu, 2014).

Arising from the above, it's established that extension workers do not extensively deals with rural women farmers especially in the area of and entrepreneurial skills acquisition. The reason for this may be as result of their ineffectiveness and lack of competences in conducting their services. Agricultural extension workers themselves do not demonstrate competences in entrepreneurial skills acquisition due to lack of constant training, especially in the area of identification of investment opportunities in Agriculture, decision to form an enterprises, Agribusiness finance, as well as diversification to different aspect of Agribusiness. To this end, if this trend continues unabated, there will be continuous increase in poverty and poor socioeconomic well-being among rural women farmers despite the availability of diverse areas of

investment in Agriculture. It's in view of this, the researcher is interested in investigating Agricultural extension workers competences in entrepreneurship development of rural women farmers in the north east zone of Nigeria.

### Objectives of the Study

The main objective of this study is to determine Agricultural Extension workers' (AEW) Competency in entrepreneurship development of rural women farmers in the north East Zone of Nigeria. Specifically, the study is to determine the competences of Agricultural extension workers in;

1. Developing innovations for rural women farmers,
2. Developing entrepreneurial creativity for rural women farmers,
3. Determination of capital requirements for rural women farmers, and

### Research Questions

The following research questions guided the study.

1. Are Agricultural extension workers competent in developing innovation for rural women farmers?
2. What is the level of competency of Agricultural extension workers in developing entrepreneurial creativity for rural women farmers?
3. What is the level of competency of Agricultural extension workers in determination of capital requirements for rural women farmers?

### Methodology

The research design is descriptive survey study which is a study in which random sample is taken from a well-defined population, data is collected from a sample, a statistics is calculated from the data, and the statistics is used to calculate true value (parameter) in the population (Abdussalami 2005). A study that deals with both large and small population by selecting and studying sample chosen from the population to discover the relative incidence, distribution and interrelationship of sociological and psychological variables using questionnaire and interview (Toulihi, 2001) <sup>[20]</sup> A method that uses information about a larger number of people or object by studying a representative sample of the entire population (Yalams & Ndomi, 2000) <sup>[22]</sup>. This design is therefore considered appropriate for the study because the study require studying a representative sample of AEW as well as rural women farmers (RWF) and after that making generalization about the entire population.

### Area of the Study

The area of research study is north eastern zone of Nigeria which is one of the six geopolitical zone in the country, It consist of six states namely Gombe, Adamawa, Yobe, Taraba, Bauchi and Borno State. The region is mostly known for the production of crops and livestock which contribute greatly to the economy of the country. The geographical profile of the north-eastern state in Nigeria has a physical setting which arises from an amalgam of factors relating to location, geology, climate as well as the intensity of resources exploitation in the area. The North East zone is located within latitude 6.26° East and longitude 4.92° North East of the equator. Its total land area is 18,971,965 km<sup>2</sup> (Anyaeche, 2007) <sup>[2]</sup>. The area shares an international border with republic of Cameroon to the east and to the south east, Niger Republic to the north, Chad Republic to the north east and local boundary with Plateau, Kano and Jigawa states.

### Population of the Study

The target population of this study comprised of all the AEW and RWF from the states within the area of the study. It was found from their various Ministries of Agriculture that they the estimated number of 480 AEW and 2100 RWF in the three selected states of north eastern Nigeria with a population size of 2580.

### Sample and Sampling Techniques

A sample size of 450 respondents (150 AEW and 300 RWF) were randomly selected from the population using stratified random sampling which is the sampling techniques adopted where the number of group within the population may not be the same and a simple random sampling would probably not reflect the correct population (Abdussalami, 2005). This is because there are three states and of different population, for each of these states to be represented using stratified random sampling is believe to be unbiased sampling technique. The states will be grouped into three strata namely Gombe, Yobe and Adamawa, AEW and RWF will then be selected from each strata using simple random sampling. The sample obtained through this method is the representative of the entire population.

### Instrument for Data Collection

The instrument used for data collection was titled Entrepreneurship competency of Agricultural extension workers (ECAEW), is semi structured questionnaire developed by the researcher. The questionnaire consist of 31 items made up of Section A and B, Sections A was designed to obtain background information and personal data of the respondents while Section B has part 1 - 3 which was designed in accordance with the research questions and hypotheses. Parts 1 deals with research questions 1 which consist of 4- point rating scale for each statement as below:

Highly Competent (HC) = 4 point, Competent (C) = 3 point, Moderately Competent (MC) = 2 point and Not Competent (NC) = 1 point.

### Validation of the instrument

The Instrument was subjected to content validity by three experts from the Department of Vocational Education Abubakar Tafawa Balewa University Bauchi and the department of Agricultural Education of Modibbo Adama University of Technology (MAUTECH) Yola, Adamawa State. The expert checked and make necessary correction on the items. Based on the correction of the expert, the instrument was modified to produce a valid copy which was used for the study.

### Reliability of the Instrument

The reliability of the instrument was established by trial testing using twenty AEW at Katsina state. Split halves method of determining reliability was employed, divided into odd numbers and even numbers group and the scores obtained from each group were correlated using spearman rank order correlation to obtained the reliability coefficient of the halve (which is the r - value), the reliability of the whole test was computed using Spearman Brown Step up (prophecy) formula.

### Method for Data Collection

The questionnaire was administered to the respondents by the researcher with the help of two research assistants. The

respondents were given some time (two hours) to fill the questionnaire before collecting back for the analysis.

### Method of Data Analysis

On completion of the questionnaire, responses were converted in to numerical values and analyzed using frequency and mean. 2.50 was used as the decision rules. This means that mean score of < 2.50 the decision is regarded as not competent while mean score of > 2.50 will be regarded as competent.

### Result and Discussion

Results in table I indicated that out of the 10 activities performed by the AEW to the RWF 6 were regarded as competent with their mean score of more than 2.50. Teaching the RWF new planting systems for different crops for example has ( $\bar{X} = 2.95$ ), use of Small Plot Adoption Technique ( $\bar{X} = 3.59$ ), use of ICT to source and interpret Agricultural researches ( $\bar{X} = 2.70$ ). Some of the items were regarded as not competent with mean of less than 2.50 such as teaching the farmers new method of fertilizer application with ( $\bar{X} = 2.14$ ).

**Table 1:** Agricultural Extension Workers' ability in develop innovation for Rural Women Farmers N=300

		HC(4)	C(3)	MC(2)	NC(1)	$\bar{X}$	Remark
1.	Teach farmers new planting systems of different crops	61	180	41	18	2.95	Comp
2.	Teach farmers new tillage practices for different crops	28	60	201	11	2.35	N/Comp
3.	Use ICT to source and translate Agricultural researches	31	174	68	27	2.70	Comp
4.	Supply of good agro chemicals to Farmers	32	53	197	18	2.33	N/Comp
5.	Teach farmers new irrigation techniques	19	41	225	15	2.21	N/Comp
6.	Teach new methods of fertilizer application	14	31	237	18	2.14	N/Comp
7.	Teach current seed rate of different crops	222	41	27	10	3.58	Comp
8.	Teach New harvesting techniques of different crops	41	72	163	24	2.43	N/Comp
9.	Use of small plot adoption techniques (SPOT)	219	51	17	13	3.59	Comp
10.	Teach different propagation techniques	233	31	25	11	3.62	Comp
11.	Perform the demonstration of improved technology to farmers	27	241	21	11	2.95	Comp
<b>Grand Mean = 2.80</b>							

C = Competent, NC = Not Comp.

### Table II

The result in this table revealed that the AEW confirmed that most of the duties listed are competencies expected to be performed by any Extension officer with a mean score of 2.50 and above. Majority of them indicated that the use of ICT to source and translate agricultural researches, and the use of

small plot Adoption Technique are competencies expected from them in developing innovations to RWF which have a mean of above 2.50. While teaching farmer new irrigation techniques, teaching the use of current seed rate in planting some crops are considered not competent by the AEW with their means of less than 2.50.

**Table 2:** Responses of the Agricultural Extension Workers' ability in develop innovation for Rural Women Farmers.

		HC(4)	C(3)	MC(2)	NC(1)	$\bar{X}$	Remark
1.	Teach farmers new planting systems of different crops	95	31	19	05	3.44	Comp
2.	Teach farmers new tillage practices for different crops	34	87	20	09	2.97	N/Comp
3.	Use ICT to source and translate Agricultural researches	112	26	10	02	3.65	Comp
4.	Supply of good agro chemicals to Farmers	17	07	123	12	2.25	N/Comp
5.	Teach farmers new irrigation techniques	09	11	118	12	2.11	N/Comp
6.	Teach new methods of fertilizer application	43	79	20	08	3.05	N/Comp
7.	Teach current seed rate of different crops	12	10	127	01	2.22	Comp
8.	Teach New harvesting techniques of different crops	29	81	30	10	2.86	N/Comp
9.	Use of small plot adoption techniques (SPOT)	105	30	10	05	3.57	Comp
10.	Teach different propagation techniques	07	19	120	04	2.19	Comp
11.	Perform the demonstration of improved technology to farmers	38	77	26	09	2.96	Comp
<b>Grand Mean = 2.84</b>							

C = Competent, NC = Not Competent

Responses on developing the entrepreneurial creativity of the RWF by the AEW in the study area indicated that helping them in post-harvest handling skills ( $\bar{X} = 3.45$ ), teaching them

on value addition for different crops ( $\bar{X} = 3.60$ ) and determining their customer's needs ( $\bar{X} = 3.64$ ) are all regarded as competent with mean more than 2.50.

**Table 3:** Responses of the RWF on developing entrepreneurial creativity for Rural Women Farmers.

		HC(4)	C(3)	MC(2)	NC(1)	$\bar{X}$	Remark
1.	Post harvest handling skills	212	34	30	24	3.45	Comp
2.	Processing skills	53	201	31	15	2.97	Comp
3.	Value addition technique for different crops	224	41	27	8	3.60	Comp.
4.	Help in sourcing raw materials for small scale production	41	37	211	11	2.36	N/Comp.
5.	Train farmers on yam production	26	14	251	9	2.19	N/Comp.
6.	Determining customer's needs	237	30	20	13	3.64	Comp.
7.	Decision making	192	58	33	17	3.42	Comp.
8.	Train farmers on fish production and marketing	39	187	63	11	2.85	Comp.
9.	Train farmers on organization of resources	30	42	214	14	2.29	N/Comp.
10.	Train them on how to prepare a good Business plan	225	38	25	12	3.59	Comp.
<b>Grand Mean = 2.76</b>							

C = Competent, NC = Not Competent

The result in Table IV indicated that the AEW confirmed that majority of the items shows competencies of AEW in developing the creativity of the RWF where they have a mean score of more than 2.50. Teaching the farmers on post harvest handling skills and training them on how to prepare a good

business plan have a mean of ( $\bar{X}$  = 2.99) and ( $\bar{X}$  = 3.62). While Training farmers on sourcing raw materials and training them the production of yam are considered as competencies according to the AEWs which have  $\bar{X}$  = 2.09 and  $\bar{X}$  = 2.11) respectively.

**Table 4:** Responses on developing entrepreneurial creativity for rural women Farmers. N= 150

		HC(4)	C(3)	MC(2)	NC(1)	$\bar{X}$	Remark
1.	Post harvest handling skills	51	60	26	13	2.99	Comp.
2.	Processing skills	05	09	123	13	2.04	N/Comp
3.	Value addition technique for different crops	23	31	80	16	2.41	N/Comp
4.	Help in sourcing raw materials for small scale production	06	13	119	12	2.09	N/Comp
5.	Train farmers on yam production	06	10	129	05	2.11	N/Comp
6.	Determining customer's needs	08	06	125	11	2.07	N/Comp
7.	Decision making	34	97	16	03	3.08	Comp.
8.	Train farmers on fish production and marketing	04	14	112	20	1.99	N/Comp
9.	Train farmers on organization of resources	42	96	09	03	3.18	Comp.
10.	Train them on how to prepare a good Business plan	107	30	12	01	3.62	Comp.
<b>Grand Mean = 2.56</b>							

C = Competent, NC = Not Competent

In answering research question V, the result in Table III revealed that 4 out of the 10 items are regarded as Not competent with the mean of less than 2.50. While 6 out of them have means of more than 2.50 and are regarded as

Competent such as Helping RWF to diversify their production with the mean score of ( $\bar{X}$  = 3.36), help them in effective storage system for their crops ( $\bar{X}$  = 3.03) respectively

**Table 5:** Responses on Determining Capital Requirement for Rural Women farmers. N= 300

		HC(4)	C(3)	MC(2)	NC(1)	$\bar{X}$	Remark
1.	Help farmers to form cooperative societies	52	63	171	14	2.51	Comp.
2.	Hel farmers to obtain certificate of ownership of their farmlands	33	59	192	16	2.36	N/Comp
3.	Help farmers to source loan from commercial banks	27	225	35	13	2.89	Comp.
4.	Help farmers to source loan from commercial banks	17	33	229	21	2.15	N/Comp
5.	Help farmers to source loan from Government agencies	9	11	250	30	1.67	N/Comp
6.	Help farmers to source loan from philanthropies	14	25	234	27	2.09	N/Comp
7.	Help farmers to diversify their production	191	48	40	21	3.36	Comp.
8.	Help farmers on effective storage systems	53	215	21	11	3.03	Comp.
9.	Help farmers to source fund from Non- governmental organizations	47	221	214	14	3.01	Comp.
10.	Help farmers to acquire assets	231	43	17	9	3.65	Comp.
<b>Grand Mean = 2.67</b>							

C = Comp., NC = Not Comp.

The result in table VI shows that helping RWF to diversify their production and helping them on effective storage systems with the ( $\bar{X}$  = 2.97 and 3.47) respectively are considered as competencies expected of the AEW in helping

the RWF in determining their capital requirement. While items such as helping farmers to source loan from commercial banks philanthropies are considered as not competences from the side of the AEW.

**Table 6:** Responses on Determining Capital Requirement for Rural Women farmers.N= 150

	HC(4)	C(3)	MC(2)	NC(1)	$\bar{X}$	Remark
1. Help farmers to form cooperative societies	29	35	82	04	2.59	Comp.
2. Hel farmers to obtain certificate of ownership of their farmlands	42	89	17	02	3.14	N/Comp
3. Help farmers to source loan from commercial banks	11	12	117	10	2.16	Comp.
4. Help farmers to source loan from commercial banks	36	83	28	03	2.95	N/Comp
5. Help farmers to source loan from Government agencies	87	34	25	04	3.36	N/Comp
6. Help farmers to source loan from philanthropies	13	12	123	02	2.24	N/Comp
7. Help farmers to diversify their production	25	96	28	01	2.97	Comp.
8. Help farmers on effective storage systems	110	31	09	00	3.67	Comp.
9. Help farmers to source fund from Non- governmental organizations	94	32	24	00	3.47	Comp.
10. Help farmers to acquire assets	55	76	18	01	3.23	Comp.
Grand Mean = 2.98						

C = Competent, NC = Not Competent

### Discussion of Findings

The findings of the study from the responses of both the AEW and the RWF, (respondents) on the items of the question on research question One, which is developing innovation for the RWF by the AEW, the grand mean of the AEW is 2.84 while the grand mean of the RWF is 2.80. This means that both the AEW and the RWF consider the items as competencies of the AEW in developing innovation for the RWF. this result is in line with the assertion of Gideon (2022) who stated that AEW are aware of the competencies required of them but only the implementation is what is to be considered depending on the type of farmers they are dealing with.

The result also shows the responses of the AEW and the RWF on the competencies of the AEW in developing entrepreneurial creativity of the RWF with the grand mean of both the AEW and the RWF as ( $\bar{X} = 2.56$ ,  $\bar{X} = 2.76$ ) respectively. This indicated that they both consider the items as competencies required of the AEW in developing RWF entrepreneurial creativity. The result is line with. This finding concord with the research of Abdulrazak *et al* (2019) which stated that AEW have competencies in developing the entrepreneurial creativities of farmers in deferent areas in order to boast their production. He further mention that in some instances, the farmers themselves are aware of the competencies but require technical assistance from the AEW to achieve it as expected.

The findings of the study also indicated that the majority of the items are competencies required of the AEW in developing the capital requirement of the RWF to carry out their farming activities. The grand mean of the 2 groups of the respondents are RWF ( $\bar{X} = 2.67$  and AEW  $\bar{X} = 2.98$ ). This indicated that they both consider the items as competencies expected of the AEW in developing the capital requirement of the RWF but the grand mean of the AEW is higher. The result is in line with the report of Sahya (2021) who stated that AEWs should possess good Agricultural extension competencies in various fields that will make perform well in discharging their responsibilities to educate their client (farmers) in improving their production.

### Conclusion

The major function of agriculture extension is to educate farmers and solve agricultural problems. The AEWs must be well train in their areas and be competent enough in dealing with their clients (farmers). Agricultural extension services are very important in the development of rural knowledge and innovative systems for rural women farmers. These services are key in influencing rural household decisions, especially

in the developing countries that are generally more in need for such guidance services (Alex & Zijp, 2002) <sup>[5]</sup>. Agricultural extension services must be designed to develop agricultural skills among farmers, teach them how to communicate efficiently with producers and stimulate them to acquire new knowledge. These activities are performed according to rules which regulate the establishment of organizations with functioning goals and fields of work, and ways to execute extension activities by an extension agent (Tborn, 2011) <sup>[19]</sup>.

### Recommendation

Based on the findings of this study, the following recommendations were made

1. Agricultural Extension Workers should possess good competencies that will help them understand their client's problem and make effort in developing innovations that can solve the problems.
2. AEW should possess good extension competencies that will help them in developing entrepreneurial creativity of the farmers under their watch.
3. AEWs should possess and improve in developing the capital requirement of their clients in order to get maximum result in increasing their production level.

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