Assessment of the Implementation of Entrepreneurship Courses in Agricultural Education Programme in Colleges of Education in North-Central, Nigeria

Ademu, A., ¹ Agbulu, O. N., ² Wombo, A, B., ² & Agbo, T. O. O.²

¹Department of Agricultural Education, Kogi State College of Education, Ankpa ²Department of Vocational Agriculture and Technology Education, Joseph Sarwuan Tarka University, Makurdi

Correspondence: ademualhaji@ymail.com

Copyright©2023 by authors, all rights reserved. Authors agree that this article remains permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

Received: May 25, 2023|Accepted: May 29, 2023|Published: June 30, 2023

Abstract: The main purpose of this study was to assess the implementation of Entrepreneurship Courses in Agricultural Education programme in Colleges of Education in North-Central, Nigeria. The study has three objectives, three research questions and a null hypothesis. The study adopted descriptive survey research design. The population of this study was 1164. The sample size for the study was 303 comprising 84 lecturers, 45 technologists and 174 NCE 3 students. Simple random sampling was used to select one college of education from each state in the zone. A check-list of agro-businesses and a structured questionnaire titled "Agricultural Education Entrepreneurship Courses Implementation questionnaire (AEECIQ)" was designed and used for data collection. The instruments were validated by five Lecturers and trial tested on 30 respondents and reliability coefficient of .998 was obtained using Cronbach's Alpha method. The data collected was analyzed using frequency count, percentage, mean and Analysis of Variance (ANOVA) for the null hypotheses at 0.05 level of significance. The findings of the study revealed that; most of the agro-businesses were not available on the school farm, there was low extent of development of agro-businesses in the sampled schools and a low level of agro-business skills was possessed by agricultural education students in Colleges of Education in North-Central, Nigeria. It was therefore recommended amongst others that standard school farms with various agrobusinesses should be built by stakeholders as Entrepreneurship Development Centre for practical teaching and learning of entrepreneurship courses.

Keywords: Assessment, Implementation, Entrepreneurship Courses

Introduction

Man's dependence on agriculture is unique, because it does not only provide food, but also creates employment opportunities, feeds the industrial sector, as well as provides income and foreign currency through external trade. From the pre-colonial era, agriculture was the most important economic enterprise in Nigeria with regard to the number of people practicing it. At that time, learning of agriculture and associated skills was vocationally and occupationally based. With increased awareness in education and subsequent movement of more children to school, the

Citation: Ademu, A., Agbulu, O. N., Wombo, A, B. & Agbo, T. O. O. (2023). Assessment of the Implementation of Entrepreneurship Courses in Agricultural Education Programme in Colleges of Education in North-Central, Nigeria. *International Journal of Agricultural and Home Economics Education* 10(1), 37-47.

responsibility of imparting agricultural production skills to children shifted from homes to school. Earlier in schools, there was a shift in the way agriculture was perceived and learnt (Agbulu & Wever, 2011). According to the author, the teaching and learning of agriculture was devoid of practical aspects on the field thereby preventing the acquisition of psycho-productive skills by students for self-employment.

With diminishing opportunities for formal employment, educational institutions are encouraged to provide relevant forms of education designed to promote self-reliance and entrepreneurial capacity for self-employment (Faminwole, 2013). It is in realization of this, that Nigeria had to adjust her educational system and diversified her curriculum to integrate academic knowledge with vocational and entrepreneurial skills so as to empower graduates with relevant knowledge and skills to make them self-reliant and useful members of the society in which they belong (Federal Republic of Nigeria, 2013).

Analysis of the objectives of agricultural education revealed that agricultural education programme in Colleges of Education is designed to produce graduates who are employable and have the ability and initiative to start and run agro-businesses. The content of the programme in Colleges of Education, though skilled, lacked some courses that help students in establishing businesses of their own (Onipede, 2013). This results in the beneficiaries of this programme not being versed in practical and entrepreneurial skills which if they were, will help them to be self-reliant. Therefore, to make up for the curricular inadequacy in meeting employment opportunities, the National Commission for Colleges of Education (NCCE), in line with the Federal Government education policy, directed that entrepreneurship training be given to all the students to prepare them for the wider world of opportunities to create jobs and ultimately become employers of labour (Adesoji & Sangoleye, 2017).

In the opinion of Mars and Torres (2014), the main aim of entrepreneurship in agricultural education was to improve students' capacity in identifying business opportunities and starting up successful agribusiness enterprise after graduation. The authors identified the objectives of teaching entrepreneurship in relation to agricultural education programme to include:

- (a) raising students' awareness of self-employment as a career option;
- (b) providing the business skills that are needed in order to start a new business;
- (c) providing the students with opportunities and favourable environment for hands-on-training that will enhance their self confidence in the world of entrepreneurship;
- (d) addressing the poverty and unemployment problems of Agricultural Education students;
- (e) enhancing the contribution of Agricultural Education programme to the society by sharing best practices with the wider community through networks and collaborations; and
- (f) developing linkages with agricultural industries and research centres.

The goal of entrepreneurship in agricultural education is to empower graduates, irrespective of their areas of specialization, with knowledge and skills that will enable them to create their own income generating ventures (Ekon-Nweke et al, 2020). Achievement of the goal of a programme depends on how well it is being implemented towards the attainment of the objectives of such a programme. In the same way, Dare as cited in Yaro et al (2016) assert that the success of any educational programme depends to a large extent on effective implementation strategy. Implementation means the act of putting a plan to action. Durlak (2016) opined that implementation is a day-to-day activity where school management and classroom teachers undertake in the pursuit of the objective of any programme. It is the realization of an application or execution of a plan, idea, design, specification, standard or policy. In this study, implementation

means the process of teaching and learning of entrepreneurship courses (skills) and practical execution of agro-business ideas towards improving entrepreneurial activities and students' acquisition of technical, managerial and other related skills in all the occupational areas of agricultural education programme in colleges of education.

For effective implementation, the National Commission for Colleges of Education Minimum Standards (2012) recommends the following as a pre-requisite for entrepreneurial agricultural education; (a) human resources (lecturers, technologists, attendants) who are committed, motivated and qualified in subject matter; (b) material resources such as well- equipped library, crop/soil laboratory, animal production laboratory, school farm and classrooms, implements and machineries and other supplementary textual teaching and learning materials; (c) innovative teaching techniques which will probe students understanding and critical thinking; and (d) practical assessment based on the students' performance in running agro-businesses. To determine the level of achievements of the objectives of entrepreneurship in agricultural education programme in Colleges of Education, the process of teaching and learning, resources for the implementation, extent of entrepreneurial activities and the outcome of the learning in the college need to be assessed.

Assessment as viewed by Emaikwu (2011) is a data gathering strategies, analyses and reporting processes which provide information that can be used whether or not the intended learning outcomes are being achieved. In the same way, Olaitan in Onipede (2013) views assessment as the process of documenting knowledge, skills, attitudes or beliefs of an individual in a particular subject area or field of study. It is a process of measuring behavior and using the result obtained in taking relevant decisions about a programme. In this study, assessment refers to the process of gathering information about the implementation of entrepreneurship courses towards the achievement of the objectives of agricultural education programme in Colleges of Education. Entrepreneurship courses in agricultural education programme in Colleges of resources for implementing the programme; and (b) capabilities of the products of the programme as a pointer to the level of implementation of entrepreneurship courses in agricultural education programme have been achieved.

Statement of the Problem

Agricultural education programme at all levels of our educational system aimed at preparing students for a career in self-employment as a more viable alternative to paid employment. With the integration of entrepreneurship courses into the curriculum of agricultural education in Colleges of Education, it is expected that after more than eight (8) years of its implementation, there would be remarkable progress and improvement in the livelihoods of graduates of agricultural education either as self-employed persons or more enterprising employees.

Reported observations by Asogwa (2013) and Onipede (2013) revealed that many graduates of agricultural education from colleges of education still remained unemployed for many years after graduation and those employed as teachers to teach Agricultural Science in primary and secondary schools still engaged in other petty businesses such as selling of recharge cards, provision and okada riding to enhance their income, which in most cases contradict their professional responsibilities. The authors attributed these problems to the way and manner in which agricultural education programme in Colleges of Education is being implemented.

This growing trend of unemployment and underemployment among graduates of Agricultural Education from Colleges of Education may indicate that the objectives of entrepreneurship courses are yet to be realized despite the abundant business opportunities in agricultural sector in North-Central, Nigeria. It is therefore necessary to identify areas of inadequacies and improvement needed towards achieving self-employment as a career option for graduates of agricultural education programme in colleges of education in North-Central, Nigeria.

Objectives of the Study

The major objective of this study was to assess the implementation of entrepreneurship courses in agricultural education programme in Colleges of Education in North-Central, Nigeria. Specifically, the study sought to:

- i. ascertain the available agro-ventures used for the implementation of entrepreneurship courses in agricultural education programme in Colleges of Education in North-Central, Nigeria.
- ii. examine the extent of agro-business development through the implementation of entrepreneurship courses in agricultural education programme in Colleges of Education in North-Central, Nigeria-; and
- iii.determine the agro-business skills possessed by agricultural education students through the implementation of entrepreneurship courses in agricultural education programme in Colleges of Education in North-Central, Nigeria.

Research Questions

The following research questions guided the study:

- i. What are the available agro-ventures used for the implementation of entrepreneurship courses in agricultural education programme in Colleges of Education in North-Central, Nigeria?
- ii. To what extent are agro-businesses developed through the implementation of entrepreneurship courses in agricultural education programme in Colleges of Education in North-Central, Nigeria?
- iii. What are the agro-business skills possessed by agricultural education students through the implementation of entrepreneurship courses in agricultural education programme in Colleges of Education in North-Central, Nigeria?

Research Hypothesis

There is no significant difference in the mean ratings of the responses of agricultural education students, lecturers and technologists on agro-business skills possessed by agricultural education students through the implementation of entrepreneurship courses in agricultural education programme in Colleges of Education in North-Central, Nigeria.

Methodology

The study made use of descriptive survey research design. The study was carried out in North-Central, Nigeria comprising six states namely Kogi, Benue, Nasarawa, Niger, Kwara, Plateau and Federal Capital Territory, Abuja. The population of this study was one thousand one hundred and sixty-four (1164), including all the one hundred and sixty-two (162) agricultural education lecturers, eighty-eight (88) agricultural technologists and nine hundred and fourteen (914) NCE three agricultural education students in the fifteen (15) public Colleges of Education in North-Central, Nigeria. The sample for this study was three hundred and three (303) respondents. Simple random sampling was used to select one College of Education from each state in the zone. The sample size is made up of 84 lecturers, 45 technologists and 174 agricultural education students in Colleges of Education in Okene, Kontogora, Pankshin, Kastina-Ala, Akwanga, Ilorin and Zuba.

The entire population of lecturers and technologists in the sampled area was involved in the study. The sample size of NCE 3 agricultural education students was selected through simple random sampling technique using 30% of the population. This gave a sample of 174 which was a true representative of the population of students. Adikwu et al (2013) stated that for a population less than one thousand, a minimum ratio of 30 percent is advisable to ensure representativeness of the samle.

The instruments for data collection for this study were a checklist and a structured questionnaire. The researcher developed check-list for agro-businesses, based on the NCCE (2012) minimum standards which served as the benchmark for the study. The researcher also developed a questionnaire titled Agricultural Education Entrepreneurship Courses Implementation questionnaire (AEECIQ) which is made up of part "A" and part "B". Part A will collect personal data of respondents. Part B contained two sections on a four-point rating scale. Section A elicited information on extent of agro-business establishment through the implementation of entrepreneurship in agricultural education programme with the following options: Very High Extent (VHE=4), High Extent (HE=3), Low Extent (LE=2) and Very Low Extent (VLE=1). Section B seeked for information on entrepreneurship skills possessed by students through the implementation of entrepreneurship courses in agricultural education programme with the following options: Highly Possessed (HP=4), Possessed (P=3), Lowly Possessed (LP=2) and Not Possessed (NP=1). The instruments were validated by five lecturers. The instrument was trial tested on thirty (30) respondents comprising five (5) agricultural education lecturers, three (3) technologists and twenty-two (22) students from college of education, Jalingo, Taraba State and reliability coefficient of .998 was obtained using the Cronbach Alpha method. Thus, the items of the instrument had a high internal consistency.

The method of data collection for this study was through direct contact with the respondents. The questionnaire was administered to the respondents directly by the researcher and some trained research assistants. The data was analyzed using percentage, mean and Analysis of Variance (ANOVA). Percentage was used to answer research questions 1 and mean for research questions 2 and 3. For research question 1, available agro-venture units, any item with 100% and above level of availability will be considered as adequate and any item with less than 100% will be considered inadequate. For research question 2, any item with mean score within real limit of 3.5 to 4.0 will be considered very high extent, 2.50 to 3.50 (high extent), 1.50 to 2.49 (low extent) and 1.0 to 1.49 (very low extent). For research question 3, any item with mean score within real limit of 3.50 to 4.0 will be regarded as highly possessed, 2.50 to 3.49 (moderately possessed), 1.50 to 2.49 (slightly possessed), and 1.0 to 1.49 (not possessed). Analysis of variance will be used to test the hypotheses at 0.05 level of significance. The computation was done with statistical package for social science (SPSS). Any item where the significant value is greater than 0.05, the hypothesis of no significant difference will be accepted, but where the significant value is less or equal to 0.05, the hypothesis of no significant difference will be rejected at 0.05 level of significance.

Results and Discussion

Table 1: Frequency count and percentages on availability of agro-ventures for the implementation of entrepreneurship courses in Agricultural Education programme in Colleges of Education in North-Central, Nigeria.

SN	Item Statement	NCCE	Avail.	Aver.	%	Remark
		Min. Std	for 7 Schs	Avail. Per sch.	Avail.	
	Crop production ventures		Sens	i ei sen.		
1.	Arable crops enterprises	1	7	1	100%	Available
2.	Tree crop venture	1	6	.86	86%	N. Avail
3.	Vegetable crop venture	1	6	.86	86%	N. Avail
4.	Floriculture	1	1	.14	14%	N. Avail
5.	Fruits	1	0	0.00	0%	N. Avail.
	Animal production ventures					
6.	Broiler production venture	1	7	1	100%	Available
7.	Layers	1	2	.29	29%	N. Avail
8.	Cockerel	1	0	0.00	0%	N. Avail.
9.	Snail venture	1	3	.43	43%	N. Avail
10.	Piggery	1	2	.29	29%	N. Avail
11.		1	7	1	100%	Available
12.	Rabbitery	1	7	1	100%	Available
13.	Grass cutter venture	1	3	.43	43%	N. Avail
14.	Goat venture	1	3	.43	43%	N. Avail
15.	Sheep venture	1	1	.14	14%	N. Avail
16.	Beef cattle	1	1	.14	14%	N. Avail
17.	Dairy cattle	1	0	0.00	0%	N. Avail.
18.	Bee – farming	1	1	.14	14%	N. Avail
19.	Hatchery venture	1	0	0.00	0%	N. Avail.
20.	Brooding business	1	0	0.00	0%	N. Avail.
	Products processing ventures					
21	Gari processing venture	1	4	.57	57%	N. Avail
22	Cassava pelleting venture	1	3	.43	43%	N. Avail
23	Crop milling venture	1	1	.14	14%	N. Avail
24	Maize shelling venture	1	1	.14	14%	N. Avail
25	Oil processing venture	1	0	0.00	0%	N. Avail.
26	Feed mill venture	1	0	0.00	0%	N. Avail.
27	Product storage venture	1	0	0.00	0%	N. Avail.
28	Farm machinery venture	1	0	0.00	0%	N. Avail.
29	Farm inputs venture	1	0	0.00	0%	N. Avail.

NCCE = National Commission for Colleges of Education, Min. Std = Minimum Standard, Avail. = Available, Schs = Schools, Aver. = Average, N. Avail. = Not Available

Table 1 shows the percentage available agro-businesses for the implementation of entrepreneurship courses in agricultural education programme in Colleges of Education in North-Central, Nigeria. The result in table 1 revealed that arable crops, broiler production, fishery and rabbitry ventures on aggregate level had percentage scores of 100% and above indicating that these agro-ventures were highly available for the implementation of entrepreneurship courses in agricultural education programme. Equally, the result in table 1 shows that all the schools had no fruits, cockerel, dairy cattle, hatchery, brooding, oil processing, feed mill, product storage, farm machinery and inputs ventures on their school farms. Other fifteen (15) agro-businesses-items 2, 3, 4, 7, 9, 10, 13, 14, 15, 16, 18, 21, 22, 23 and 24 on aggregate had percentage scores between 14% to 86% indicating low in availability.

agricultural education programme in North-Central, Nigeria.									
S/N	Item statement		Ν	Mean	SD	Remark			
	Arable crops enterprises								
1.	Arable crops enterprises		303	4.000	.000	HE			
2.	Tree crop venture		303	3.835	.569	HE			
3.	Vegetable crop venture		303	3.921	.461	HE			
4.	Floriculture		303	3.795	.713	HE			
5.	Fruits		303	2.092	.361	LE			
	Animal enterprises								
6.	Broiler production venture		303	3.007	.230	HE			
7.	Layers		303	3.017	.172	HE			
8.	Cockerel		303	2.139	.439	LE			
9.	Snail venture		303	2.109	.312	LE			
10.	Piggery		303	2.036	.187	LE			
11.	Fishery		303	2.957	.260	HE			
12.	Rabbitery		303	2.970	.205	HE			
13.	Grass cutter venture		303	2.023	.150	LE			
14.	Goat enterprise		303	2.026	.161	LE			
15.	sheep venture		303	1.977	.263	LE			
16.	Beef cattle		303	1.079	.271	LE			
17.	Dairy cattle		303	1.053	.224	LE			
18.	Bee – farming		303	1.050	.217	LE			
19.	Hatchery		303	1.040	.195	LE			
20.	brooding venture		303	1.056	.231	LE			
	Products processing ventures								
21.	Garri processing		303	1.043	.219	LE			
22.	Cassava pelleting ventures		303	1.053	.238	LE			
23.	Crop milling venture		303	1.056	.231	LE			
24.	Maize shelling		303	1.069	.254	LE			
25.	Oil processing venture		303	1.063	.243	LE			
26.	Feed mill enterprise		303	1.066	.262	LE			
27.	Products storage venture		303	1.026	.161	LE			
28.	Farm machinery venture		303	1.007	.081	LE			
29.	Farm inputs venture		303	2.013	.215	LE			
	1	Grand mean	303	1.985	.259	LE			

Table 2: Mean ratings of the responses of agricultural education students, lecturers and technologists on the extent of agro-business development through the implementation of entrepreneurship courses in agricultural education programme in North-Central, Nigeria.

N = number of respondents, SD = standard deviation, HE = high extent, LE = low extent

Result in Table 2 revealed that on arable crop enterprises, items 1, 2, 3 and 4 had their means ranged from 3.79 to 4.00 signifying high extent of development while item 5 of the same arable crop enterprises had mean score of 2.10 meaning low extent of development. Equally, result in table 2 showed that under animal enterprises, while item 6, 7, 11 and 12 had means of 3.007, 3.017, 2.957 and 2.970 meaning high extent development, items 8, 9, 10, 13, 14 and 15 had their mean scores ranged from 1.977 to 2.970 meaning low extent of development. Items 16, 17, 18, 19 and 20 on animal enterprises had mean scores ranged from 1.040 to 1.079. This indicated very low extent of development respectively.

Table 3: Mean ratings of the responses of agricultural education students, lecturers and technologists on the level of agro-business skills possessed by students through the implementation of entrepreneurship courses in agricultural education programme in North-Central, Nigeria.

/N	Item Statement	Ν	Mean	SD	Remark
1.	Identifying business opportunities in agriculture	303	3.198	.772	HE
2.	Generating ideas suitable to the opportunities identified	303	3.079	.793	HE
3.	Analyzing the agro – business environment	303	3.217	.792	HE
4.	Setting appropriate business goals in agriculture	303	3.046	.740	HE
5.	Making short and long term planning in agro – business	303	3.046	.779	HE
6.	Agro – business management skills	303	1.980	.181	LE
7.	Technical practical skills in various agro – ventures	303	2.040	.353	LE
8.	Organizing resources for agro – production / goal	303	1.984	.320	LE
	attainment				
9.	Coping with uncertainly in agricultural business	303	1.990	.309	LE
10.	Budgeting and forecast of sales	303	2.023	.418	LE
11.	Advertising agro – product	303	2.033	.466	LE
12.	Determining seasonal fluctuation of agro – products	303	1.987	.381	LE
13.	Decision making skills	303	1.960	.397	LE
14.	Financial management skills	303	1.967	.280	LE
15.	Marketing skills	303	2.013	.423	LE
16.	Preparing financial statements	303	2.003	.449	LE
17.	Problem solving skills	303	1.997	.359	LE
18.	Innovative skills	303	1.990	.288	LE
	Grand mean	303	2.309	.472	LE

N = number of respondents, SD = standard deviation, HE = high extent, LE = low extent

Table 3 revealed the mean ratings of the respondents on agro-business skills possessed by agricultural education students through the implementation of entrepreneurship in agricultural education programme in Colleges of Education in North-Central, Nigeria. Result in table 8 showed that items 1, 2, 3, 4, and had mean scores of 3.198, 3.079, 3.217, 3.046 and 3.046 respectively meaning high extent. Equally, table 8 revealed that items 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 18 had mean scores ranged from 1.980 to 2.040 signifying low extent.

Table 4: One-way ANOVA mean ratings of the responses of agricultural education students, lecturers and technologists on agro-business skills possessed by agricultural education students through the implementation of entrepreneurship courses in agricultural education programme in colleges of education in North-Central, Nigeria.

Source of variance	Sum of	df	Mean	F	Sig. (P-	Alpha	Dec.
	squares		square		Value)	-value	
Between Groups	.013	2	.006	.555	.574	0.05	NS
Within Groups	3.382	300	.011				
Total	3.394	302					

df = *degree of freedom*, *NS* = *not significant*, *Dec.* = *decision*

Result in Table 4 shows P-value (sig.) of .574 was greater than the alpha- value of 0.05 with the sum of squares between groups of .013 and the degree of freedom of 2, sum of squares within groups of 3.382 and the degree of freedom of 300. This implies that the null hypothesis is not rejected or accepted.

Discussion of Findings

The finding on research question 1 revealed that arable crops, broiler production, fishery and rabbitry were on the aggregate available and met minimum standard for the implementation of entrepreneurship courses; other fifteen (15) agro-businesses on the aggregate were low in availability while twelve (12) were not available and did not meet minimum standard for the implementation of entrepreneurship courses in agricultural education in Colleges of Education in North-Central, Nigeria. The finding of this study was in agreement with Emeje in Idoko (2018) on available farm resources for students' entrepreneurial skills acquisition in secondary schools in Kogi State, where it was found out that only three (3) agro-ventures (arable crops, broiler and fish farm) were available. From the findings, the available agro-ventures on the school farms were mainly in area of crop and animal production. This confirms the position of Idoko (2018) that entrepreneurial activities in agricultural education in Nigeria schools is restricted to the traditional areas of crop and animal production while other numerous innovative ventures such as crops and animal products processing, dry season gardening, snail farming, bee farming and other micro livestock farming are silent. The more available agro-ventures are on the school farms, the more the skills will be acquired by the graduates during their training. This finding therefore, indicated the need to have numerous agro-ventures on the school farm for the implementation of entrepreneurship courses. The finding of the study, however, was in disagreement with the finding of Fakehinde (2014) that many agricultural enterprises such as egg production, broiler production, food stuff processing, arable and tree crops production, cockerel, fishery, rabbitry and grass cutter production were majorly engaged in Colleges of Education in the middle belt and Western states of Nigeria for fund generation. This finding is not surprising as some educational institutions through their consultancies embarked on agro-ventures which may not be used for educational purpose but as fund generating ventures for the schools.

The finding of the study revealed that agro-businesses on the school farms were inadequately developed; though, a high level of development was shown in arable crops, broilers, and fishery and rabbitry ventures. The remaining: fruits, cockerel, snail, piggery, grasscutter, goat, sheep, beef cattle, dairy cattle, bee farming, hatchery, brooding, garri and products storage ventures had a very low level of development. The finding was in agreement with the finding of Fakehinde (2014) on fund generating potentials and sustainability of agricultural ventures in Colleges of Education in the middle belt and Western states of Nigeria, where it was found out that most of the agricultural ventures engaged by the Colleges for fund generation were run on a small scale due to unavailability of farm inputs and other inherent problems. The findings above might be responsible for the poor performance of agro-ventures for fund generation in agricultural education programme in Colleges of Education as many of the available ventures are run on a small scale.

The finding of this study revealed that students possessed low level of agro-business skills in practical areas of agro-business management skills, farm practical skills, organizing resources for goal attainment, coping with uncertainty in agriculture. The findings of this study was in conformity with the findings of Odoma (2016) that students have learnt significant self-employment entrepreneurial skills in six (6) out of thirty-six (36) vocational areas. Equally, the study revealed that their entrepreneurial capability was found low, as there were no significant production of marketable goods and services to show for their practical knowledge. However, the findings of the study differed from the findings of Chinoso and oku (2012) on the performance of business education graduates in businesses in Anambra state, where it was found out that graduates of business education have satisfactory performance in; recording keeping, accounting and marketing, among others and that they do well in employment. The result is not surprising because

most of these graduates are roaming the streets from one organization to another seeking for employment opportunities. This confirms the observations of Onipede (2013) and Asogora (2013) that many graduates of agricultural education from Colleges of Education remained unemployed for many years after graduation and those employed as teachers to teach agricultural science in primary and secondary schools still engaged in other petty businesses such as selling of recharge cards, provision and Okada riding to enhance their income.

Conclusion

Based on the findings of the study, it is concluded that some of the agro-businesses were not available in any school. This implies that the teaching of entrepreneurship courses only emphasized on theoretical aspect with little or no practical activities. Those available were not adequately developed thereby making it difficult for students to possess agro-business skills. This can be seen in the low skills possessed by agricultural education students through the implementation of entrepreneurship courses.

Recommendations

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

- 1. School administrators should establish standard school farms with various agro-businesses as Entrepreneurship Development Centre for practical teaching and learning of entrepreneurship courses. This will definitely promote agro-business skills acquisition of students and motivate them towards self-employment in agro-businesses after graduation.
- 2. School administrators should be more responsive to the requirement of agricultural education programme by providing adequate material resources for effective implementation. In addition, there should be increased emphasis on practical skills acquisition on the school farm because students need to know how to do the different agrobusiness skills and practice them to acquire the skills.
- 3. The National Commission for Colleges of Education (NCCE) should make it mandatory for all the departments of agricultural education in colleges of education to run commercial farming. This can be incorporated into the curriculum by education planners with an annual zonal agro-business exhibition and entrepreneurial show, where various schools can showcase what they produce.
- 4. School administrators and lecturers should organize Youths Organization in Agriculture beyond payment of dues and organizing send-forth for out-going members to activities that will contribute to skills acquisition in the school. This will encourage interest in agricultural entrepreneurship.

Acknowledgements

The researchers acknowledge all the authors whose works were consulted but not cited in this study. All research assistants, respondents and fellow colleagues who contributed to the success of this study are also acknowledged.

Declaration of Interest

The researchers declare that there is no conflict of interest in this study. The researchers entirely funded the research.

References

- Adesoji, A. U. & Sangoleye, F. (2017). Pedagogical practices in teaching entrepreneurship education in universities in South west Nigeria. *Journal of Advances in Social Sciences Research 4 (21)*.
- Adikwu, O., Aduloju, M. O. & Emmaikwu, S. O. (2013). Research Methods and Statistics in Education. Makurdi: Shibboleth Printers
- Asogwa, V. C. (2013). Entrepreneurial competencies in goat production for enhancing the income of teachers of agriculture in secondary schools in Enugu state. *International Journal of Advanced and Innovative research*, 2 (10), 2278 2284.
- Chinoso, S. A. & Oku, M. E. (2012). Assessment of the performance of business education graduates in businesses in Anambra State. *Journal of Qualitative Education*, 8 (2), 10-22
- Durlak, J. A. (2016). What you have to know about programme implementation: presentation for the National Academics Committee Workshop on defining and measuring character and character education. Retrieved on 7/6/2020 from http://www.oecd.org/pisa/kryfindings/pisa-2012. resultoverview.pdf
- Ekoh-Nweke, A. C. Mkpa, A. M. & Ezeabii I. C. (2020). Entrepreneurial training strategies adopted by lecturers in developing business abilities in Nigeria universities students. *International journal of Research and Innovation in Social Sciences*. 4, (1) 245 – 256
- Emaikwu, S. O. (2011). Evaluation of the integration of entrepreneurship skills acquisition in the university curriculum: Implication for national development. Journal of Educational Innovators, 4 (1) 123 132.
- Federal Republic of Nigeria (2013). National policy on education, Lagos: Nigeria Education Research and Development Council.
- Fakehinde, B. (2014). Fund generating potential and sustainability of agricultural ventures in colleges of education in the middlebelt and western states of nigeria. Unpublished thesis of the University of Nigeria Nsukka.
- Famiwole R.O. (2013). Measures to improve the decline usage and operations of school farm in secondary schools. *International Journal of Computational Engineering Research 3 (2) 17* - 31.
- Idoko, A. (2018). Need for curriculum revision in agricultural education for entrepreneurship development. Retrieved on 6/5/2019 from https://www.ijh8.com /journals/3/no13.publishers
- Mars, M. M. & Torres, R. M. (2014). Enhancing agricultural education through the inclusion of entrepreneurship principles and practices. *Journal of Agricultural Education*, 58 (4), 284 289.
- NCCE, (2012). Minimum Standard for Colleges of Education. Abuja: NCCE
- Onipede, O. (2013). Assessment of the effectiveness of resources inputs into the implementation of agricultural education programme in colleges of education in South west, Nigeria. Unpublished Phd thesis of the universities of Nigeria, Nssuka
- Weor, D. U. (2011). Livelihood approach for enhancing students participation in crop production in Nigeria. *Journal of Educational Innovators*. 4 (1) 237-242.
- Yaro A., Gadu O. I. & Pev I. (2016) Strategies for Improving the Teaching of Practical Agriculture in Senior Secondary Schools in Taraba State, Nigeria. *International Journal of Educational Research and Management Technology*. 1(1).16 – 36.