ENTREPRENEURSHIP IN AGRICULTURAL PRODUCTION FOR SUSTAINABLE DEVELOPMENT IN NSUKKA AGRICULTURAL ZONE OF ENUGU STATE

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Abstract

The study was carried to investigate the problems and prospects of entrepreneurship for sustainable Agricultural production in Nsukka Agricultural zone of Enugu state. Four research questions and four null hypotheses were formulated to guide the study.Survey research design was adopted. Population for the study comprised 530, representing 515 agricultural entrepreneurs and 15 extension agents in Nsukka agricultural zone. No sample was selected since the population was manageable. Structured questionnaire was developed to solicit information from respondents. The instrument was validated by three experts and tested for reliability using Cronbach alpha reliability method which yielded a coefficient of 0.78. The instrument was administered by the researchers with the help of three research assistants.Total of 530 copies of the instrument were administered but 480 were collected representing a return rate of 91 percent. The data were analyzed using mean to answer research questions while t-test statistic was used to test the null hypotheses at 0.05 level of significance. It was found among others that fish farming, timber production, arable crop production, piggery, snail farming, horticulture, apiculture were the areas entrepreneurship can be carried out in Agriculture. It was recommended that agricultural entrepreneurs should be given proper education and re-trained on the needs for entrepreneurship for sustainable agriculture.

Key words:Sustainability.Agricultural Production,Entrepreneurship,Prospects

Introduction

Agriculture industry is standing as the largest economic sector in Nigeria today. The greatest number of her population depends on agriculture for economic resources, food security and poverty alleviation (Food and Agricultural Organization, 2013). Agriculture involves the rearing of animal and the production of crops for man's benefit (Talathi, Naik and Jalgaonkar, 2011). International Labour Organization (2010) explained agriculture to mean the cultivation of plants and rearing of animals for food, fibre, biofuel, medicinal plant and other products used to sustain and enhance human life. According to Ben (2014)agriculture includes farming in all its branches and among other things. Furthermore, agriculture includes tillage of the soil, dairy production, growing and harvesting of any agricultural crops, the raising of livestock and any practices performed by farmers on the farm (Ben, 2010). Agriculture is made of different areas and branches. Farmers can specialize in different agricultural productions such as poultry (broilers or layers) production,crop production, horticulture,fish farming,timber production, fruit juice processing, wildlife protection, industrial raw material production, animal feed productions, agricultural produce marketing, agricultural produce packaging, agrochemical production, agricultural produce storage among others (World Bank, 2008). The major roles of agricultural production include the supply of adequate raw material to the growing industries, provision of

employment,foreign exchange carnings. food supply to the increasing population, among others.Agricultural production is increasingly making a great impact in the nation's economy (Oji-Okoro. 2011). According to the author there should be a strong linkage or collaboration between the farmers and extension agents. Information on the innovative agricultural production is received from the research institutes by the extension agents and passed on to the famers to enhance their production capacity. This is in line with Adejo, Okwu and Ibrahim (2012) who emphasized that the use of extension agents remains the most crucial means of reaching farming houscholds.In his view, Nwuzor (2009) noted that extension agents assist farm people through educational procedures in improving farm methods and techniques, increasing production efficiency and income. enhancing levels of living and lifting their social and educational life for a sustainable agriculture.

Sustainable agriculture is the production of food and fibre using farming practices that protect the environment, public health and boost farmer's income (Osinem,2005).Sustainable Agriculture is a type of activity that provide environmental, economic and social opportunities for the benefit of the present and the future generation while maintaining and enhancing the quality of the resources that support agricultural production (Campbell, Thornton, Zougmore, Asten and Lipper,2014). Sustainable Agricultural Development utilizes some farming strategies or techniques such as growing crops that can produce their own nutrients (eglegumes) to reduce the use of fertilizer, crop rotation which minimize pesticide use, mixed cropping which reduces the risk of a disease destroying the whole crops,organic farming and good water management system (irrigation). The above techniques are environmentally friendly. According to Talathi, Nouk and Jalgaonker, (2011). sustainable agricultural development is not only friendly to the environment but equally beneficial to the farmers in some other areas like: improvement of human health, reduction of toxicity in the soil, strengthening the activities of soil micro-organism,improving the nutrient content of the crops, reducing soil erosion and improvement of water retentive capacity of the soil.

Sustainable development of agriculture will help to promote youth employment and encourage self-reliant. National Burcau of Statistics (NBS) (2012) reported that the unemployment rate in Nigeria was recorded to be 19.7%,20.1% and 21% in 2009, 2010 and 2011respectively.This actually ranked Nigeria as the 12th Nation in the weight of unemployment in Africa (Manggoel,Ajiji, Damar,Damiyal, Da'ar and Zarmai, 2012). The unemployment rate in Nigeria keeps rising,as joblessness of young Nigerians in the first half of 2012 stood at 23% (NBS, 2013). It is provoking to note that majority of this unemployed are young graduates. One of the attractive options for the unemployed graduates was to accept agricultural production as an alternative means of employment and entrepreneurship for self-reliance and sustenance.

Entrepreneurship can be explained as the willingness and ability of an individual to seek out investment opportunity,to establish and run an enterprise successfully (Ezeibe. 2014). Entrepreneurship involves identifying what needs to be done, taking actions and benefiting from such. Hisrich (2002) noted entrepreneurship as the process of creating something different in value, devoting the necessary time and effort; assuming the accompanying financial, psychological and social risk; and receiving the result and rewards of the monetary and

personal satisfactions. Supporting this view, Odah (2003) stated that entrepreneurship is a dynamic process of creating incremental wealth.The author further noted that wealth is created by individuals who assumed the major risk in terms of equity,time and or career commitment or provide value for some products and services.An entrepreneur is the individual who engages in business for the purpose of making prolit. An entrepreneur according to Bukola (2011) is an innovating individual who has developed an ongoing business activity where none existed before. Agricultural entrepreneurs engage in production and processing of agricultural products which can be sold locally or internationally.They partake in agricultural business of any sort for the purpose of making profit. Every entrepreneurship in agriculture has some possible problems. This was in line with Ikem (2012) who emphasized that any agricultural entrepreneur is confronted with many production problems which is part of his management function to proffer adequate solution. This assertion is a laudable reality since any outstanding entrepreneurship problem must have an outstanding prospect.

This study was therefore aimed at determining the entrepreneurship in agricultural production for sustainable development in Nsukka agricultural zone. Specifically,the study seeks to identify the different areas of entrepreneurship development in agriculture; benefits of entrepreneurship development for sustainable agriculture; challenges of entrepreneurship for sustainable agricultural development in Nsukka Agricultural zone and strategies for curbing the challenges of entrepreneurship for sustainable agricultural development in Nsukka Agricultural zone

Research Questions

The study is designed to answer the following research questions

1. What are different arcas of entrepreneurship developmentin agriculture?

2. What are the benefits of entrepreneurship for sustainable agriculture development?

3.What are the challenges of entrepreneurship for sustainable agriculture?

4. What are the strategies for curbing the challenges of entreprencurship for sustainable agriculture?

Research Hypotheses

The following hypotheses were formulated to guide the study and were tested at 0.05 level of significance.

HO1:There is no significance difference in the mean responses of agricultural entrepreneurs and extension agents on the different areas of entrepreneurship in agriculture

HO2: There is nosignificance difference in the mean responses of agricultural entrepreneurs and extension agents on the benefits of entrepreneurship for sustainable agricultural production.

HO3: There is no significance difference in the mean responses of agricultural entrepreneurs and extension agents on the challenges of entrepreneurship for sustainable agricultural production.

HO4:There is no significance difference in the mean responses of agricultural entrepreneurs and extension agents on the strategies for curbing the challenges of entrepreneurship for sustainable agricultural production.

Methodology

The study adopted a survey research design and was conducted in Nsukka Agricultural Zone of Enugu State. Nuskka agricultural zone is made of three agricultural sub-zones namely: Nsukka,Igbo Etiti and Uzo-Uwani sub-zones respectively. The population for the study is 530 made up of 515registered agricultural entrepreneurs

and 15 extension agents (Agricultural Development Programme, Nsukka Agricultual Zone, 2018). No sampling was done since the population was manageable. The instrument for data collection was 70 item structured questionnaire with four-point response options of strongly Agree, (SA), Agree (A), disagree (D) and strongly Disagree (SD) to answer the four research questions.The instrument was face validated by three experts from the Department of Agricultural Education, University of Nigeria Nsukka. They made some inputs that were integrated to improve the quality of the final copy. Reliability of the instrument was determined using Cronbach Alpha method which yielded a coefficient of Results 0.78.Out of the 530questionnaire distributed, 480were collected with the help of three research assistants.This gave 91 percent return rate.

Mean and standard deviation were used to answer the four research questions while t-test statistic was used to test the null hypotheses.Any item with a grand mean of 3.50 and above was interpreted as strongly agree,2.50 - 3.49 was regarded as agree, 1.50 - 2.49 as disagree while 0.50-1.49 was interpreted as strongly disagree.A null hypothesis was accepted when the probability value was greater than 0.05 and rejected when the probability value was less than 0.05.

Table 1:Mean and t-test Analysis of the Responses of Agricultural Entrepreneurs and Extension Agents on the Different Areas of Entrepreneurship in Agriculture

					Entrep	reneurs	Ag	ents		
S/N	Item statements	XG	SD	Rem	x	SD:	X:	SD:	p-value	Dec
1	Arable crop production	3.50	0.52	SA	3.50	0.52	3.49	0.51	0.94	NS
2	Layers production	3.28	0.57	A	3.25	0.45	3.31	0.69	0.75	NS
3	Broilers production	3.51	0.52	SA	3.50	0.52	3.51	0.51	0.94	NS
4	Horticulture	3.51	0.52	SA	3.50	0.52	3.51	0.51	0.94	NS
5	Snail farming	3.50	0.52	SA	3.50	0.52	3.49	0.51	0.94	NS
6	Apiculture	3.50	0.51	SA	3.50	0.52	3.49	0.50	0.94	NS
7	Frut juice processing	3.26	0.63	A	3.25	0.62	3.27	0.63	0.93	NS
8	Fish farming	3.50	0.52	SA	3.50	0.52	3.49	0.51	0.94	NS
9	Timber production	3.38	0.72	A	3.42	0.67	3.34	0.76	0.76	NS
10	Wildlife conservation	2.97	0.81	A	2.92	0.79	3.02	0.82	0.94	NS
11	Agro-based industrial raw material production	2.71	0.80	A	2.58	0.67	2.83	0.92	0.39	NS
12	Animal feed production	3.05	0.78	A	2.92	0.79	3.17	0.77	0.32	NS
13	Agricultural produce marketing	2.92	0.84	A	2.83	0.83	3.00	0.84	0.55	NS
14	Farm mechanics	2.69	0.78	A	2.50	0.80	2.88	0.75	0.14	NS
15	Agro-chemical production	2.95	0.77	A	3.00	0.74	2.90	0.80	0.71	NS
16	Agricultural produce storage	2.93	0.76	A	2.92	0.79	2.93	0.72	0.97	NS

17	Piggery	3.26	0.78	A	3.50	0.71	3.02	0.85	0.44	NS
18	Rabbit farming	3.06	0.79	A	2.83	0.83	3.29	0.75	0.08	NS
19	Grasscutter farming	3.48	0.51	A	3.50	0.52	3.46	0.50	0.83	NS
20	Agro-processing	3.48	0.51	A	3.50	0.52	3.46	0.50	0.83	NS
21	Beef cattle production	3.39	0.74	A	3.50	0.67	3.27	0.81	0.37	NS
22	Dairy cattle/milk production	3.41	0.64	A	3.50	0.52	3.32	0.76	0.44	NS
23	Vegetable production	3.35	0.96	A	3.46	0.82	3.24	1.09	0.13	NS
24	Agro-chemical marketing	3.54	0.79	SA	3.55	0.71	3.53	0.87	0.24	NS

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Key:XG-Grand mean; Rem-Remark:X1-Mean 1:X,-Mean 2;SD,-Standard Deviation I:SD:-

X,-Mean 1;X,-Mean 2:SDi-Standard D

Standard Deviation 2,SA-Strongly Agree:A-Agree.Dec-Decision;NS-Not Significant

Data presented in Table 1 shows that items 1,3,4,5,6,8and 24 had their mean values at above 3.50. This implies that arable crop production, broiler production. horticulture,snail farming,apiculture.fish farming and agro-chemical marketing were strongly accepted by agricultural entrepreneurs and extension agents as the different areas of entrepreneurship in agriculture.Similarly,items 2,7,9-23 had their mean values between 2.50 and 3.49. which implies that layers production,fruit juice processing,timber production,wildlife conservation, agro-based industrial raw material production, animal feed production, among others were agreed by the respondents as the different areas of entreprencurship in agriculture. Furthermore,all the items had their p-values ranging from 0.08 to 0.97 which were greater than 0.05.Therefore,the hypothesis whichstates that there is no significant difference(p>0.05)in the mean respnses of agricultural entrepreneurs and extension agents on the different areas of entrepreneurship in agriculture was accepted.

Table 2: Mean and t-test Analysis of the Responses of Agricultural Entrepreneurs and Extension Agents on the Benefits of Entrepreneurship for Sustainable Agricultural Production

					Agricultural Entrepreneurs		Extension Agents			
S/N	Item statements	XG	SD	Rem	X	SD:	X:	SD:		Dec
1	Poverty alleviation	3.51	0.52	SA	3.50	0.52	3.51	0.51	0.94	NS
2	Employment opportunity	3.51	0.52	SA	3.50	0.52	3.51	0.51	0.94	NS
3	Reduction in anti-social behavior of the youths	3.00	0.50	A	3.00	0.60	3.00	0.39	1.00	NS
4	Youth empowerment	2.96	0.55	A	2.92	0.51	3.00	0.59	0.66	NS
5	Self-reliance	3.19	0.65	A	3.25	0.62	3.12	0.68	0.56	NS
6	Abundant food supply	2.91	0.72	A	2.83	0.72	2.98	0.72	0.55	NS
7	Creation of wealth and income generation	2.78	0.73	A	2.83	0.72	2.73	0.74	0.68	NS
8	Reduction of rural-urban migration	3.10	0.80	A	3.00	0.74	3.10	0.85	0.68	NS
9	Effective domestic resource	3.35	0.87	A	3.46	0.77	3.24	0.97	0.31	NS

	utilization									
10	Improves standard of living	3.35	0.87	A	3.45	0.71	3.24	1.03	0.84	NS
11	Contribute to national economic growth	3.31	0.89	A	3.33	0.79	3.29	0.99	0.17	NS
12	Reduction in economic dependency	3.36	0.80	A	3.36	0.73	3.35	0.86	0.55	NS
13	Improves human resource utilization	3.29	0.95	A	3.40	0.77	3.18	1.13	0.11	NS

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Data presented in Table 2 revealed that items I and 2had their mean values greater than 3.50. This shows that poverty alleviation and employment opportunity were strongly agreed by the respondents as the benefits of entrepreneurship for sustainable agricultural production. Similarly,items 3 - 13 had their mean values between 2.50 and 3.49. which signifies that reduction in anti-social behavior of the youths,youth empowerment, self-reliance,abundant food supply,creation of wealth and income generation,reduction of rural-urban migration,effective domestic resource utilization, among other were agreed by agricultural entreprencurs and extension agents as the benefits of entreprencurship for sustainable agricultural production.Additionally,the p-values of the entire items were greater than 0.05. This implies that the hypothesis of no statistically significant difference (p>0.05) in the mean responses of the respondents on the benefits of entreprencurship in agricultural production was upheld.

Table 3: Mean and t-test Analysis of the Responses of the Respondents on the Challenges of Entrepreneurship for Sustainable Agricultural Production

		Agricultural Entrepreneurs			Extension Agents				
		X	SD	Dec	X:	SD:			
	Item statements	XG	SD	Rem				p-valueS/N	
1	Poor weather conditions	3.12	0.97	A	3.00	1.04	3.24	0.89	0.43 NS
2	Unfavourable government policies	3.46	0.63	A	3.50	0.52	3.41	0.74	0.71 NS
3	Untimely harvesting	3.52	0.51	SA	3.50	0.52	3.54	0.50	0.83 NS
4	Poor agricultural skills acquisition	3.52	0.51	SA	3.50	0.52	3.54	0.50	0.83 NS
5	Illiteracy	3.52	0.51	SA	3.50	0.52	3.54	0.50	0.83 NS
6	Inadequate production facilities	3.52	0.51	SA	3.50	0.52	3.53	0.50	0.83 NS
7	Insecurity	3.52	0.51	SA	3.50	0.52	3.54	0.50	0.83 NS
8	Marketing problems	3.52	0.51	SA	3.50	0.52	3.54	0.50	0.83 NS
9	Insufficient initial capital	3.52	0.51	SA	3.50	0.52	3.54	0.50	0.83 NS

10	Corruption	4.00	0.51	SA	4.00	0.52	3.59	0.50	0.44	NS
11	Lack of interest in agriculture	3.52	0.51	SA	3.50	0.52	3.54	0.50	0.83	NS
12	Compctition	3.36	0.91	A	3.43	0.77	3.29	1.05	0.19	NS
13	Irregular power supply	3.43	0.85	A	3.45	0.76	3.41	0.94	0.15	NS
14	Poor road network	3.37	0.84	A	3.45	0.76	3.29	0.92	0.26	NS
15	Inaccessible weather information	3.28	0.90	A	3.38	0.84	3.18	0.95	0.70	NS
16	Poor extension services	3.50	0.86	SA	3.53	0.70	3.47	1.01	0.24	NS
17	Inversion of pests and diseases	3.61	0.66	SA	3.62	0.60	3.59	0.71	0.17	NS
18	Poor technical know-how	3.55	0.78	SA	3.57	0.68	3.53	0.87	0.19	NS

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Data in Table 3 revealed that items 1. 4.5,6.7,8.9,10,11 、 16 、 17 and 18 had their grand means at 3.50 and above. This shows that untimely harvesting, poor agricultural skills acquisition, illiteracy, inadequate production facilities,insecurity, marketing problems, among others were strongly agreed by the respondents as the challenges of entrepreneurship for sustainable agricultural production. Similarly,items 1.2, 12.13.14 and 15 had their grand means between 2.50 and 3.49. This signities that agricultural entrepreneurs and cxtension agents agreed that poor

Data in Table 3 revealed that items 1. 4.5,6.7,8.9,10,11 、 16 、 17 and 18 had their grand means at 3.50 and above. This shows that untimely harvesting, poor agricultural skills acquisition, illiteracy,

weather conditions. unfavourable govemment policies,competition.irregular power supply, poor road network and inaccessible weather information were the challenges of entreprencurship for sustainable agricultural production.Table 3 also shows that p-values of the entire items were greater than 0.05.This shows that there was no statistically significant difference (p-0.05) in the mean responses of the respondents on the challenges of entrepreneurship for sustainable agricultural production. Therefore,the null hypothesis was upheld.

Table 4: Mean and t-test Analysis of the Responses of the Respondents on the Strategies for Curbing the Challenges of Entrepreneurship for Sustainable Agriculture

					Agricultural Entreprencurs		Extension Agents			
S/N	Item statements	XG	SD	Rem	X	SD	X:	SD:	p-value	Dec
1	Good govemment policies to protect entreprencurs	3.52	0.51	SA	3.50	0.52	3.54	0.50	0.83	NS
2	Provision of good production facilities	3.52	0.51	SA	3.50	0.52	3.54	0.50	0.83	NS
3	Proper education	3.00	0.73	A	3.00	0.74	3.00	0.71	1.00	NS
4	Improved marketing strategies	2.94	0.73	A	3.00	0.74	2.88	0.71	0.61	NS
5	Ploughing back profits of the enterprise	3.12	0.57	A	3.00	0.60	3.24	0.54	0.18	NS
6	Good human relations	2.95	0.72	A	2.92	0.67	2.98	0.76	0.81	NS
7	Laws against corruption	2.72	0.60	A	2.42	0.51	3.02	0.69	0.01	S
8	Regular market information	2.97	0.58	A	3.17	0.58	2.76	0.58	0.04	S
9	Supply of improved varieties of plants and animals	3.22	0.71	A	3.33	0.65	3.10	0.77	0.34	NS
10	Provision of supervised subsidies	3.21	0.97	A	3.29	0.88	3.12	1.05	0.67	NS

11	Provision of supervised grants	3.22	1.02	A	3.32	0.92	3.12	1.11	0.74	NS
12	Timely provision of weather information	3.33	0.97	A	3.41	0.84	3.24	1.09	0.64	NS
13	Timely provision of extension services	3.42	0.87	A	3.42	0.80	3.41	0.94	0.40	NS
14	Regular power supply	3.33	0.92	A	3.37	0.85	3.29	0.99	0.33	NS
15	Regular retraining of entrepreneurs	3.49	0.76	A	3.50	0.72	3.47	0.80	0.15	NS

Table 4 shows that items 1 and 2 had the grand mean of 3.51 which is greater than 3.50.This implies that good government policies and provision of good production facilities were strongly agreed as the strategies for curbing the challenges of entrepreneurship for sustainable agricultural production. Furthermore, items 3-15 had their grand means ranging from 2.72 to 3.49 which were within the range of 2.50-3.49. This implies that proper education, improved marketing strategies, ploughing back the profit of the enterprise,good human relations, law against corruption,

wildlife conservation for commercial profit making.

regular market information, supply of improved varieies of plants and animals. among others were agreed by the respondents as the strategies for curbing the challenges of entrepreneurship for sustainable agricultural production.Table 4 also revealed that all the items except items 7 and 8 had their p-values greater than 0.05 This implies that there is no statistically significant difference ($p>0.05$) in the mean responses of the respondents on the strategies for curbing the challenges of entrepreneurship for sustainable agricultural production.However,Item 7 and 8 had their p-values less than 0.05 which implies that the two items were statistically significant ($p<0.05$).

Discussion of the findings

Different Areas of Entreprencurship Development in Agricultural in Nsukka Agriculturul Zone

It was found out that arable crop production, layers production, broilers production, horticulture, snail farming. apiculture, fruit juice processing,fish farming,timber production, wildlife conservation, agro-based industrial raw material, animal feed production, agricultural produce marketing, farm mechanics, agrochemical production. agricultural produce storage,piggery,rabbits farming, grass cuter farming, agro-processing,beef cattle production among others were the areas where entrepreneurship can be developed in agriculture.The findings were in agreement with Usman(2006)who reported that arable crop production,beef cattle production,fish farming,animal feed production among others are productive areas in agriculture where can take up an enterprise. Holt(2006) further reported that entreprencurship venture can be created in snail faming,farm mechanics and

capital, untimely harvesting and illiteracy were the physical road blocks

Benefits of Entrepreneurship for Sustainable Agricuttural Production in Nsukka Agricuttural Zone

The study further found out that poverty alleviation, employment opportunity, reduction in anti-social behavior of the youths,youth empowerment, self-reliance,abundant food supply,creation of wealth and income generation,reduction of rural urban migration,effective domestic resource utilization, improvement of standard of living,reduction in cconomic dependency among others were the benefit of entreprencurship for sustainable agriculture, These findings were in agreement with the work of Talathi, Naik andJalgaonkar (2011) who reported that good agricultural entrepreneurship offers gainful employment opportunity,poverty alleviation, abundant food supply and inerease in nation's standard of living.The lindings were also supported by Okoro (2009) who reported that reduction in cconomic dependency,reduction of rural-urban migration, creation of wealth and generation of income remain the great benefits of entreprencurship for sustainable agricultural development.

Challenges of entrepreneurship for sustainable agricultural production

Poor weather conditions,unfavorable government policies,untimely harvesting, poor agricultural skills acquisition, poor technical know-how, inversion of pests and diseases,lack of interest in agriculture, corruption,inadequate capital, inadequate production facilitics, insecurity and marketing problems were found to be the challenges of entrepreneurship for sustainable agricultural production. The lindings were in line with the research conducted by Eno-Oborg (2006) where it was reported that agricultural entrepreneurs accepted that inadequate production facilities,poor

to entrepreneurshipinnovation for sustainable agriculture. According to the research author,these challenges were more prevalent in Nigeria than in any other part of the world.

The findings were also supported by Holt (2006)who reported that pests and diseases evasion, unfavorable government policies and poor skill acquisition of agricultural entrepreneur have remained barriers to entrepreneurship for sustainable agriculture.Holtreported that any attempt to advance entrepreneurship for sustainable agriculture without first addressing the issue about provision of the needed initial capital. ensuring the availability of agro-chemicals and proper checking of pest and disase invasion will not yield the needed fruits. Food and Agricultural organization(FAO) (2013) further reported that poor extension services, poor technical knowhow, corruption, competition, and insecurity limits the advancement and effectiveness of entrepreneurship for sustainable agricultural production.

Strategies for curbing the challenges of Entrepreneurship for sustainable agricultural production in Nsukka agricultural zone

It was found out that good government policies, provision of good production facilities, proper education, improved market strategies,ploughing back profits of the agricultural production,good human relations, law against corruption, regular supply of market information,supply of improved varieties of plants and animals, among others were the strategies for curbing the challenges of entrepreneurship for sustainable agricultural production. The findings were in consonance with the work of Mamman (2008) who reported that provision of grants and input subsidies will equip the agricultural entrepreneurs with the needed financial capacity to buy other farm inputs,pay the hired labour and advance in commercial production of the farm products. Okoro (2009) found that when enough capital is made available through grants, loan with low interest charges and subsidies from both governments and non-government organizations, agricultural business enterprise will be boosted.

The findings were also in line with the work of Muhammed(2007) who found that proper education, regular supply of market information, good human relations, timely provision of extension services and regular re-training ofagricultural entrepreneurs will equip the agricultural entrepreneurs with information to adopting new innovations such as new farming method,control of pests and diseases,and climate changes indices to improve entrepreneurship for sustainable agriculture. The findings of the study were also in agreement with Okongwu (2004)who found that regular power supply, good government policies,improved marketing strategies, provision of law against corruption and ploughing back profit gained in any farm enterprise to encourage quick growth of entrepreneurships were the solutions to the problems of agricultural entrepreneurship.

Conclusion

Entrepreneurship can be applied in the different areas of agriculture ranging from fish farming,farm mechanics,poultry production,agricultural product processing among others. Agricultural entrepreneurship is considered essentially for its ability to provide abundant food supply, poverty eradication and income generation. Agricultural entrepreneurs encounter a lot of challenges in developing entrepreneurship for sustainable agriculture due to lack of initial capital,high level of illiteracy and poor technical know-how.Entrepreneurship for sustainable agriculture needs to be strengthened by regular retraining of agricultural entrepreneurs and provision of

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good production facilities and availability of capital.

Recommendations

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

1. Farmers should be given proper orientation,regularly training and re-training by the Ministry of Agriculture to improve their entrepreneurial abilities.

2. Ministry of Agriculture should establish favourable policies that will encourage entreprencurship in agriculture for national economic growth.

3. Government should encourage young school leavers to take up entrepreneurship in Agricultural production for self-employment.

References

Adejo, P.E., Okwu, O.J. & Ibrahim, M.K. (2012). Challenges and prospects of privatization of agricultural extension service delivery in Nigeria. Journal of Agricultural Extension and Rural Development,4(3)63-68

Anugwom, G.A. (2007). Entrepreneurship in Nigeria, principles and practice. Enugu:Rhcelkerex Publishers

Ben, G.B. (2010).What is agriculture? Definition of agriculture. Retrieved from http://www.cropsreview.comwhat-is-agriculture.html

Bukola, A.B. (2011). Entrepreneurship Education: An imperative for sustainable development in Nigeria. Journal of Emerging Trends in Educational Research and Policy Studies,2(1).26-29.

Campbell, B. M.,Thornton, P., Zougmore, R., Asten, P.V. & Lipper. L.. (2014). Sustainable intensification: What is its role in climate smart agriculture? Current Opinion in Environmental Sustainability,8,39-43

Ekpo, H.H.(2008).Poverty alleviation and substance of democracy in Nigeria enhancement strategies.Nsukka:University Press.

Eno-Oborg, H. (2006). Challenges of Entrepreneurship in Home Economic and enhancement strategies, Nsukka: University Press

Eze, S.O. (2013). Attitudes of youths towards agriculture in the 21st century Nigeria:The case of Ebonyi state.Paper delivered at a workshop /orientation organized by Technical and Vocational Education Department, Ebonyi state University.

Ezeibe, A.B.C.(2014). Entrepreneurship, starting my own small business. Nsukka: Grand Heritage Global Communication

Food and Agricultural organization (2013). Food security and sovereignty http://www.fao.org/3/a-ax736e.pdf

Hisrich, R.D. & Peters, M.P. (2002).Entrepreneurship.Fifth Edition. Singapore: Mc Graw-Hill Higher Education

Holt, D.H. (2006).Entrepreneurship:New Venture Creation. India: Private Limited New Delhi

Ikeme, A.I. (2012). Reading in Entrepreneurship:bridging the learning and earning. Nsukka: Grand Heritage Global Communication

International Labour Organization (2010) Safety and health in agriculture. Retrieved 12th April, 2018 from http://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/normativeinstrument/wcms_161135.pdf

Mamman,A. (2008). Entrepreneurship development and poverty alleviation in Nigeria. Kaduna: Joyce Graphic Printers and Publishers

Manggoel, W.,Ajiji, 1., Damar, W.K.,

Damiyal, D.M., Da'ar, J.W. &Zarmai,

D.U.(2012). Agriculture as a mitigating factor to unemployment in Nigeria.International Research Journal of Agricultural Science and Soil Science, 2(11),465-468

Muhammed, K.I. (2007)Entrepreneurship skills required by secondary school graduates for success in rice production enterprises in Kwara State. Unpublished M.Ed Thesis,University of Nigeria, Nsukka

National Bureau of Statistics (2013).Gross domestic product for federal republic of

Nigeriahttp://nigerianstat.gov.ng/clibrary

Nationl Bureau of Statistics (2012). Agriculture.http://nigerianstat.gov.n g/elibrary

Nwuzor, B.A (2009). Agricultural Extension: Its Contributions to Agricultural Development in Nigeria. Enugu: Snaap Press Nigeria Ltd

Odah. G.E. (2003). The importance of entrepreneurship to cconomic development. Journal of Professional Administration,3(1)15-20

Oji-Okoro,I. (2011).Analysis of the contribution of agricultural sector on the Nigeria economic development.

World Review of Business Research,1 (1),191-200.

Okongwu. D. (2004).Fundamental issues in Entrepreneurship. Lagos: Apex Books

Okoro, O. (2009). Entrepreneurship Skills Required by Secondary School Graduates for success in yellow pepper production enterprise in Nsukka agri-ccological zone of Enugu State. Unpublished M.Ed Thesis. University of Nigeria,Nsukka.

Osinem, E.C. (2005) Environmental Education in Agriculture. Enugu;Cheston L.td

Talathi,J.M.,Naik, G.V.&Jalgaonkar, V.N. (2011).Introduction to agricultural economics and agribusiness management. New Delhi:Ana Book Publishers

Usman .A. (2006) Entrepreneurship Education for vocational and Technical students. Kano: Benchmark Publishers Limited

World Bank (2008)World development report 2008:Agriculture for development. https://opcnknowledge.worldbank.org/handle/10986/5990